Review of Adaptive Basic Social Services Provision to Reduce Disaster Risk of Populations Especially Children in Selected Horn of Africa Countries

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INTRODUCTION

Objectives
This study reviews, assesses and documents past and existing DRR practices and policies in relation to the key social service sectors of WASH, education and nutrition and to a lesser extent community outreach services and other practices of health services delivery approaches and mechanisms at point of use. It highlights the importance of social service accessibility and availability for drought-crisis affected populations, and their contribution to sustainable human development and enhancing resilience capacities in the three Horn of Africa countries of Ethiopia, Kenya and Uganda.

It addresses the following main questions:

• Are the policies related to social service provision accounting for the needs of populations at risk in the event of drought and its impacts? This includes drought impacts on conditions of people, especially children, and their access to water, sanitation, nutrition, education, and to a lesser degree and where feasible, social protection and health services in situations of heightened vulnerability and need.

• Are basic social services and their provision modalities effective in responding to needs of populations affected by drought, including their ability to adapt to changing situations and numbers of clientele?

• Are basic social services strengthening or inadvertently undermining the resilience of people recurrently affected by drought?

• Have investments in basic social services been sufficient and adequate in order to respond to needs in terms of quantity and quality, and what are some of the very effective and efficient examples that can be reproduced?

• What are the preconditions for effective integration of disaster risk reduction across basic service sectors?

• What coordination and management mechanisms have been used and what technical expertise is needed to ensure effective DRR integration in service delivery across sectors?

• What should be done differently to maximise impact of the social services delivery to reducing risks of recurrent droughts and mitigating their impacts and enhancing peoples' resilience?

• What should be done to improve knowledge management practices in order to enhance learning and information sharing in relation to DRR and resilience programmes?

What are the indications regarding the cost-effectiveness of service delivery modalities and policies that were developed or supported by various program interventions?
METHODOLOGY

Working definitions

The Review team consisted of a team leader, an international consultant for Uganda and national consultants for Ethiopia, Kenya and Uganda. After representatives of this team for the three countries presented their initial proposed outline for what should be included in the country and regional reports to representatives of ECHO and UNICEF ESARO, the criteria for the review was determined as follows:

A good practice should be both effective and cost-effective. Practices cannot be considered effective unless they are considered within the overall environment that enables the service delivery system to which they are contributing to be adaptive. As such, the initial criterion for consideration of a practice is how well it is holistically interlinked. A holistically interlinked practice is defined as one that contributes to the adaptability and resilience of the overall services delivery mechanism system through acknowledging and incorporating tradeoffs and ensures coordination that reduces gaps associated with linkages across:

- National, regional and local policies, investments, and approaches: Policies and strategies should be reviewed to determine which of their aspects are contributing to adaptive service delivery in general and to drought-vulnerable populations specifically. Since sustained investment in approaches designed to achieve such adaptive service delivery is the only way that such policies and strategies can contribute to adaptive service delivery, such investments and approaches should also be reviewed to determine how they contribute to this enabling environment.

- Within and across sectors through partnerships in all processes in the delivery systems: Practices within initiatives can only be effective within an overall service delivery system that is a part of an overall community system. While understanding how a particular practice contributes to the overall community system was determined to be beyond the scope of the review, how the practice fits within the service delivery system specifically and any particularly relevant inter-sectoral effects need to be considered.

- The contiguity of how service delivery operates in drought-affected areas: Before there can be adaptive access, there must be access. So an understanding should be developed of how the system operates in normal times and how this initiative and practices within it contribute to such access. But adaptive access additionally requires understanding what changes for service delivery for early warning, early action, and extreme events and how this initiative and its practices contribute to delivery being adaptive in each of these phases.

An effective practice must contribute to service delivery adaptability by enabling it to be timely and flexibly modified for specific contexts, trends, early action, and extreme situations in a manner that reduces negative consequences to vulnerable members of the community by putting in place mechanisms that enable:

Undisrupted Service: It should ensure that service is ongoing and regular through all phases of the drought cycle.

Anticipate future needs: It should appropriately use resources and spending in a manner that anticipates future needs through such mechanisms as surge capacity, emergency funding and stockpiling.

Context-relevant: It should be relevant to the needs of populations and their specific contexts through such mechanisms as beneficiary input into planning and implementation.

Do No Harm: It should ensure that Do No Harm principles are applied to ensure maintenance of coping mechanisms and capacities and no unintended creation of power imbalances.

An effective practice must strengthen resilience of the service delivery system and the underlying vulnerable populations.
UNICEF’s working definition of resilience, which may be adapted to context, is:

“The ability of children, communities and systems to withstand, adapt to, and recover from stresses and shocks, advancing the rights of every child, especially the most disadvantaged.”

Similarly, ECHO’s definition of resilience, is:

“The ability of an individual, a household, a community, a country or a region to withstand, adapt and to quickly recover from stresses and shocks.”

ECHO’s simplified model of operationalizing this definition is shown in Figure 1. As stipulated in the Objectives, this Review focuses on adaptability of basic social services in the improved basic services component. It also considers, under the safety nets and DRM preparedness components, how social protection and DRM preparedness can contribute to such adaptability. Since the livelihoods support component is covered extensively in other reports focusing on the link between livelihoods and resilience, considerations of livelihoods are limited to how any initiatives that strengthen livelihoods can directly enable adaptable service access or indirectly enhance the demand side of people’s ability to access services during times of drought.

Many criteria for practices to contribute to resilience-strengthening are described in frameworks in the literature (Bahadur, 2010; Jones et al, 2010; Levine et al, 2011; Hughes, 2013; Mercy Corps, 2013; Pasteur, 2011; UNDP Drylands Development Centre, 2013; DFID, 2011;
A system cannot be completely resilient to all shocks and stresses it may face. But it can be made more or less resilient to a range of context-specific shocks or stresses of different types and scale. An issue with conceptualizing resilience vis a vis shocks is that to date, many developed frameworks limit the definition of shock to food or livelihood insecurity. And in doing so, they risk overlooking the shock of ineffective or disrupted social services, and the role of access to basic services in resilience at many levels. With this in mind, this review categorizes characteristics of existing frameworks according to those that can describe what makes social service delivery more adaptable and better able to build or strengthen resilience as follows:

**Knowledge and ability to adapt**: An effective practice should not just provide services to people but should enable them to learn how to adapt those services through improved preparedness, ability to cope, risk reduction and information access.

**Access to basic services**: An effective practice should improve access to the service being reviewed and should also improve access to services in other sectors safely and equitably.

**Participatory decision-making**: An effective practice should be implemented in a manner that enables the affected community to have a voice in how it is implemented and how it can be adapted. This decision-making should be done in a manner that better enables inclusiveness in other community decisions.

**Ability to meet needs**: Both service delivery systems and households have constantly changing and growing needs. An effective practice should help them to meet these needs through such mechanisms as social safety nets, access to financial resources, livelihood diversity and quality access and control of natural and physical resources.

An effective practice must improve the equitability of service delivery. It should consider direct and indirect impacts to different groups and ensure that the resulting service delivery mechanism is adaptable and resilient for the most vulnerable people across direct and indirect impacts across locations due to remoteness and migration and within locations in such groups as hosts and migrants, non-target groups and community vulnerability subgroups.

An effective practice must be sustainable in a manner that enables communities and local government, private sector and civil society institutions to eventually manage it independently with their own resources and built capacity. As stated previously, a good practice would also need to be cost-effective.

As a full cost-effectiveness study was not feasible given the constraints of the Review, the focus was on determining whether the costs associated with implementation of the practice makes replicating it recommended in its current manner of technology and funding, only with more innovation to improve its potential for sustainable replication, or only with increased funding to improve its potential for sustainable replication.

**Analysis Approach**

Based on the above definitions, questions were formulated from which to review the policies, approaches and practices through review of related documents and through interviews. For policies and investments, interviews were conducted with national and regional government disaster management offices and ministries related to service delivery, local government staff, donors and UNICEF regional and country office staff. For practices and approaches, the interviews were designed to provide verification of previously obtained information through triangulation as in Figure 2. Such interviews were conducted with donors, UNICEF regional/country office staff, task force members, implementing partner staff, local government staff and key informants at the community level about how people are impacted as identified by aforementioned interviewees. Further triangulation was obtained through direct observation of evidence of impacts of the practice being employed through the perceptions of groups or individual representatives of people directly and indirectly affected.

Some of the selected case studies were determined to provide enough evidence of good practice to merit extensive analysis. For these studies, analysis of holistic interlinkages was facilitated through use of a ‘Linkages
Diagram' and analysis of adaptability, resilience-strengthening, equitability and sustainability and cost-effectiveness was facilitated through use of an 'Impacts Diagram'.

The 'Linkages Diagram' summarizes relevant processes contributing to service delivery in normal, early action and extreme event time phases and what the studied intervention is doing to improve access in each phase. The oval between the normal and early action phases contains processes involved in early warning. The oval between early action and extreme event phases contains processes involved in realizing the arrival of an extreme event.

Clear boxes indicate processes external to the intervention and red boxes indicate those that are part of or a result of the intervention. Arrows indicate causality between one process and another. Yellow boxes indicate the actor involved in the process. And green boxes along the left-hand side of the diagram indicate policies and approaches that describe the framework for relevant processes. All such illustrated summaries in the diagram are then described more fully in the narrative.

The 'Impacts Diagram' is a summary of relevant impacts of the studied intervention. The overall intervention objectives that may or may not be directly related to this study's definitions are summarized in the 'Intended' box at the top of the 'Impacts Diagram' and are explained in the introduction to each case study's impacts section. In each of the boxes for 'Adaptability', 'Resilience-Strengthening', 'Equitability', 'Sustainability' and 'Cost-effectiveness', the main points regarding how this intervention contributes to the defined elements of these criteria being met are summarized and then expanded upon in detail in the subsequent narrative. In the sample 'Impacts Diagram' below, each criterion and defined element of those criteria is accompanied by an icon to represent it. In the full case studies in the country review chapters, these icons will be in these corresponding places in that case study's 'Impacts Diagram'.

Figure 2: Triangulation Approach
Other case studies that were not determined to be as informative about all aspects of effective practices were used to highlight insights regarding particular aspects without use of these diagrams. In these shorter case studies, the icons accompany the narrative to help accentuate the criterion or element in focus.

**Criteria for case study selection**

The objectives, definition and analysis approach were distributed to suggested UNICEF Country Office staff in relevant sectors and other UN agencies, NGOs, and government offices who might suggest initiatives to visit and review. A pre-study ranking and scoring matrix was developed by the reviewers to rank all such initiatives against how well information could be obtained to verify how well they contributed to service delivery adaptability, resilience-strengthening, equitability and sustainability and cost-effectiveness according to the Review’s working definitions. The three initiatives that scored highest were then given highest priority for field visits.

**Ethiopia**

The evolution of the Health Extension Programme and how it operates in different conditions in the country emerged among the highest scoring initiatives to review. Studying how it operates in two different locations in Oromia also allowed brief consideration of the impacts of Self-Help Groups in Adama. To understand how the HEW program operates in a representative dryland area with problems related to lower capacity and remoteness, Somali region and its Mobile Health and Nutrition Teams (MHNT) were selected. This also enabled review of how the highly scoring WASH Committees operate in Somali region with its Mobile Maintenance Teams (MMT) and strategic boreholes relative to how they can more effectively operate alone and in WASH Federations in SNNPR. And, while in Somali region, review of how education can be flexible through Alternative Basic Education centres and formal schools was conducted. Security concerns prevented observational visits to remote areas in which MHNTs, MMTs and migrating ABEs were most functional, but...
relevant information was obtained from informants and focus groups who understood how they operate in Jijiga and nearby areas. Although logistical constraints prevented the depth of on-site practice interviews and observations that were originally planned, the highly scoring Productive Safety Net Programme (PSNP) and Community Care Coalitions (CCC) were briefly reviewed in a separate trip to Tigray region.

Kenya
Since practices regarding surge capacity for IMAM implementation scored highly according to these criteria, the decision with representatives of Concern Worldwide was to study this in Marsabit after the initial plan for such study in Moyale had to be cancelled due to security reasons. For logistical reasons, it was also determined that the remainder of the studied practices would be in Turkana, given that the other two highest scoring pre-study initiatives; the Borehole Distance Monitoring System and PRRO as well as the approach of the National Drought Management Authority could be studied there.

Uganda
Since this Review focuses on approaches and practices for drought-affected areas, all reviewed practices were selected from the Karamoja Region. Preparedness through the nutrition surveillance system was selected for extensive review because of an expressed interest by the donor. Since natural resource management in the water sector scored well initially in consideration of all elements of the ‘good practice’ definition, it was also chosen for an extensive case study. The eight minor studies that focus on particular aspects of good practice were selected based on evidence provided within the beginning stages of the Review during field trips, on availability of documentation and on recommendations from stakeholder interviews including government representatives, donors, project leaders, partner agencies and local representatives. Since a specific request was made by the donor to highlight examples of interventions which have proven to translate knowledge provision into application at a household level, behavior change methodologies were specifically addressed in two of the case studies.
**Write-up Approach**

The country context chapters are designed to give an overview of the general issues in providing adaptive service delivery in drought-affected areas of the country and of the aspects of national level policies, frameworks, approaches and investments that are designed to enable that specific adaptiveness that is described in the sector chapters. Specifically, it provides background on

- Basic social service delivery challenges and successes in general in the country
- Vulnerability of services to droughts and other hazards
- Problems contributing to drought-risk service delivery in particularly prone places within the country
- National-level policies and frameworks designed to overcome these problems
- Approaches to implementation of these policies
- Investment into these approaches

Each sector chapter is designed to describe:

- Issues with service delivery to vulnerable people in that sector
- How policies and approaches address these issues
- Through case studies, how the aforementioned linkages of interventions practices to these policies and approaches and to other processes across different phases contribute to adaptability, resilience-strengthening, equitability and sustainability and cost-effectiveness impacts; in cases in which practices were deemed to have detrimental or missing impacts or in which enabling environment factors made the practice more effective in one area than another, these were also identified; due to limitations and constraints, not all sector chapters have the same amount of depth or case study analysis
- Key messages at the end of each case study regarding how practices in the reviewed intervention contribute to that service’s adaptiveness.
Constraints and Limitations

Only 50 days were available to the national consultants for the review. These 50 days were inclusive of policy review for multiple sectors, case study and site selection, field visits including authorization and travel, follow-up and report writing. This prevented a more detailed investigation and analysis of practices. As the objective of this review was depth in understanding the implications of a few selected implemented practices, breadth in analyzing many other implemented and implementable measures was not possible.

Due to this limited time, the focus of information gathering was on documentation, interviews with implementing partners responsible for the project, and key informants who could provide input regarding perceived impacts on service providers and service utilizers. In some cases, this resulted in inability to have in-depth focus group discussions with service utilizers themselves, especially those in remote areas, a factor that could have enhanced our understanding of the impacts on them.

Case study selection was limited by a lack of input in response to requests by agencies and partners, for practices that met the review criteria to be considered. This was partly due to the review commencing at a time when many people who could have provided such input were on leave or otherwise engaged. An additional problem faced was that, despite the fact that the subject matter of the review titled 'Review of adaptive basic social services provision to reduce disaster risk of populations especially children' was very specific, it was often confused with DRR initiatives unrelated to adaptive basic social service provision (e.g., livelihoods). In-depth interviews were required to select the appropriate site and, despite such a tedious process, flexibility was required to change sites when the resulting site was inappropriate. Such problems meant that the case study and site selection process took longer, using time that could have been employed more productively in effective site visits and analysis.

Some of the initiatives that ranked highly for visitation according to our review criteria were not possible to review because they are located in areas that were considered at the time of the Review to be unsafe to visit. Long security clearance processes that were required prior to approval for any site visit further reduced the amount of time available for the study.

For the policy review, access to information was limited. Many of the policies are in draft form or under revision. Current or final versions were sometimes difficult to obtain from governments.

Although the consultants aimed to obtain quantitative empirical evidence of the impacts of interventions where possible, most of the suggested interventions for review had not been in place in the reviewed form long enough to be tested specifically based on the review’s adaptability, resilience-strengthening, equitability and sustainability criteria. As such, much of the analysis was restricted to triangulation of input regarding what the intervention is expected to achieve conceptually and any supporting indications that disruptions similar to those that might be experienced in a drought had been averted because of the practices associated with the reviewed intervention. Although some questions attempted to isolate impact causation to the practices being reviewed, quantitative counterfactuals on which to isolate specific changes attribution were not possible.

This resulted in less than desirable ability to fully determine whether changes that have taken place have been due to these particular practices or various other trends and interventions. Isolating the specific impacts of the selected interventions proved difficult in some instances because the measures were implemented in combination with other activities, either by the same organization in an assistance package or by others separately. Although information was verified across multiple sources, some respondents were new in their positions or otherwise not able to provide as much information as desired. And, despite methodological efforts to overcome such biases, resulting qualitative information was subject to perceptions, opinions, memory, and feelings of the respondents.

Although the focus of the review is on the practices themselves and not the implementation strategies of the implementing organization, results of the interventions cannot be isolated from effects of these strategies.

Since only a limited number of sites could be visited due to the aforementioned constraints, there are probably many interventions with implications for good practices that were unable to be reviewed.
REGIONAL SYNTHESIS

People in ‘pastoral’, ASAL and dryland areas in the Horn of Africa are changing. Their ambitions, their conditions and their ways of life are all changing. Some people are deciding, due to some combination of their own incentives and government policy, to rely less on livestock and resulting migration. What this doesn’t mean is that services should be established only for those who choose permanent settlement. What it does mean is that we can expect that these systems will continue to include some modern pastoralists, some permanently settled people and many shades and variants in between and that these systems will continue to evolve in ways expected and unexpected. For this, service delivery systems need to be able to adapt to these changes as well as to how people’s ways of accessing services differ in times of idiosyncratic or covariate stress. Investment is needed in overall service delivery systems that are adaptable to local needs and conditions and in specific mechanisms that can help these systems to adapt more quickly and effectively so that services can be continuously accessed equitably and sustainably for all people as their conditions and lifestyles continue to evolve.

An unfortunate reality is that ‘normal times’ are defined in many areas of these three countries by a lack of reliable basic social service access. In these areas, service delivery mechanisms need to be devised which can enable such reliable, regular access. When doing so, however, investments should be made in a manner that is informed by the local risks of loss of access due to hazards such as drought and due to the vulnerabilities to them associated with lifestyle and livelihood practices so that the implemented service delivery system can be dependable in both normal and extreme times. In areas in which the service delivery system is generally reliable but is vulnerable to lack of access in extreme times, consideration should be given to investments in modifying the system to be able to adapt during these extreme times based on such local context considerations.

In general, sector and disaster risk reduction policies and service provision practices should also provide for specific early action and extreme event adaptability in accordance with decentralization and deconcentration shifts. Such policies should promote long-term investment in improved local-level capacity, coordination and flexible basic social service provision. Service providers and committees should be trained in how to learn, adapt and Do No Harm for self-supply as much as possible and in creating, disseminating and using early warning data that can enable quickly adaptive early action. Systems and underlying elements of them should be analyzed to isolate which aspects are cost-effective in equitably and sustainably enhancing adaptable and resilience-strengthening service provision. Those that are recommended as effective in promoting such adaptive service provision should be modified to be context-relevant to specific adaptability constraints according to local conditions and capacities elsewhere. Innovation in technology and coordination should be encouraged to improve those aspects that are not so cost-effective.

RECOMMENDATIONS FOR OVERALL ADAPTIVE BASIC SOCIAL SERVICE PROVISION

Holistically Interlinked Policies, Approaches, Investments and Practices

• Long-term consistent mainstreamed strategies and funds should be linked to coordinated local approaches that consist of synergistically innovative practices that better enable service delivery systems to adapt to evolving conditions in normal times, that contribute to capacity for early warning and early action contingencies and adaptation ability to reduce times of crisis in which service is disrupted and that better enable recovery of the system to enable service delivery during and after such a crisis event

• Broaden overarching development plans and visions to comprehensively address community and system resilience through adaptive basic social services in a manner that integrates Disaster Risk Reduction, Sustainable Livelihoods and Climate Change Adaptation into government functions. A systems approach to identifying and addressing gaps, weaknesses and risk should be enabled in policies, strategies and inter-linked sector-based action planning. Use locally adapted resilience frameworks to guide sector-based projects that support this approach and to prioritize synergies
and linkages with other sectors. These resilience frameworks should include results-based matrices that require mutually supportive sectors, consider baseline differences between different systems for service delivery and measure against national, MDG and HFA related targets and priorities. Use structures such as district disaster management and preparedness committees or similar bodies at appropriate levels and built where possible on existing structures. Use a multi-agency, participatory approach to community vulnerability and risk mapping and district contingency plans to inform sector resilience projects and a multi-sector needs and technical capacity assessment particularly at district level.

- Design policies, strategies and approaches according to the voices and inputs of those they aim to benefit most: marginalised ASALs-dwellers, women, youth, and people with disabilities. Their consistent and genuine role in participatory decision making is key to appropriate and effective interventions. Good principle and intentions will translate into improved wellbeing outcomes only through solid stewardship and coordination, robust risk as well as knowledge management, good partnership and resource mobilisation, and long-term determination to pursue well-defined and measurable results.

- Vertical linkages are required to ensure that new initiatives are tied to the overall government policies and approaches. Horizontal linkages are required to ensure that such initiatives consider all existing actors and processes in the delivery system and the overall system in which it operates such that redundancies are avoided and synergies can best be realized.

- As good governance is one of the pillars of enabling both access and adaptive access, conduct studies on governance mechanisms in social service delivery that promote transparency and accountability. Support and develop anonymous, no-cost reporting mechanisms such as those through mobile messages that are delivered directly to national authorities and oversight bodies for each sector.

- Investment should empower local authorities and committees to identify problems and act upon them since such investment strengthens the resilience of the service delivery systems and helps to make them adaptive to trends and shocks. Decentralisation of decision-making powers aids in this empowerment and should be accompanied by corresponding decentralized budgets that optimally mix local empowerment and supervision, coordination and support from higher levels. Local committees should be formalized with clear linkages to existing government structures.

- Rather than running multiple types of systems with different objectives, systems should be built to evolve toward local system proactive and reactive adaptability with local delivery committee and practitioner capacities being encouraged to develop in different ways according to their location-specific conditions and capacities.

- Committees and other relevant service delivery actors should be a part of the formation of contingency and preparedness plans and should be linked to gathering, dissemination and use of drought and other early warning information.

**ADAPTABILITY Undisrupted Service**

- Provide continued support and innovation for outreach facilities that reach remote areas with the ability to adapt to migratory routes of pastoralists and maintain continuous service delivery that is complementary to sedentary service provision.

- Develop capacity at the community level to manage as much of the preventive and curative needs of the service delivery system as possible. Develop the capacity of such local systems to identify potential problems and to proactively adapt solutions to address these problems as appropriate to enabling continued service. For unanticipated problems, develop local system capacity for early identification so that problems can either be fixed locally by those trained to do so or can be communicated quickly to those who can
help minimize any resulting disruptions

- Build flexibility into the system to encourage people to be able to access it when they otherwise would not be able to do so. Examples of such flexibility include flexible calendars, registration cards and facilitator migration that enable pastoralists to access education; mobile health and nutrition teams and maintenance teams for water that can enable access in remote areas and among people who migrate; and surge capacity and prepositioning of supplies in nutrition that enable access when capacity is lower than needed

- Utilize data from surveillance and monitoring approaches to develop more specific capacity to address needs in hotspot areas, to plan training in what to do in conditions that would prevent service provision, to preposition stocks and surge human resource capacities for allocation at such times and to trigger assessments, funds and supplies as needed to ensure that services continue

**Anticipates Future Needs**

- Develop local capacity and coordinate this capacity for data collection, analysis and decision-making so that:
  
  - Preparedness and prepositioning decrease waste through appropriate stockpiling and hotspot location
  
  - Keeping systems running require less funds than expensive repairs and replacements

- Develop locally coordinated and higher-level supported contingency plans based on expected seasonal trends and occasional crises. Develop complementary contingency funds through user group fees and savings and loans associations that can help during such times of expected problems and in times of unforeseen problems

- Implement surge capacity approaches with predetermined thresholds for scaling up and scaling down again according to a contiguum approach that helps to prevent subsequent problems of overstaffing

- Promote a 'No Regrets' approach by donors that emphasizes early warning and early action in service delivery that helps to proactively ensure that lives are saved

**Context Relevant**

- Systems must be developed with general guidelines for operating procedures that help to ensure adaptable access, but these guidelines must be flexibly specific to the different conditions and capacities of different areas. Rather than multiple types of systems, approaches should encourage evolution at a location-specific pace toward being locally sustainable and adaptable

- Develop capacity for local-level monitoring and surveillance for effective and efficient diagnosis of common problems. Develop local capacity for proactively avoiding and reactively responding to commonly identified problems. When local capacity is insufficient for an appropriate curative solution, optimally coordinate referral to those who are prepared to provide the solution and determine whether such a problem was anomalous or deserving of training for such future local capacity

- Further develop capacity for local-level monitoring and surveillance of service access trends, shocks and hotspots that feeds into local-level preparedness and early action triggered by locally-informed and higher-level verified early warning. Determine what specific training and planning is needed based on this understanding of the local risk context

- For areas characterized by remoteness, lack of capacity, lack of infrastructure and migration, consider hybrid development and humanitarian approaches of mobile teams that serve to increase the capacity of static facilities to better provide adaptable access while ensuring equitable service to those who would not have such access under current conditions
• As described in ‘knowledge and ability to adapt’ below, develop communication and mobilization strategies tailored to such contextual factors as literacy levels and access to mass media

Do No Harm
• Design initiatives to complement rather than undermine local practices

• Require service delivery personnel to understand local coping mechanisms for drought and other prevalent stresses so that service delivery can incorporate contingency plans that complement rather than undermine such mechanisms

• Ensure that committee and other such empowered members and any related incentives are selected by the community in ways that are sustainable and create no power imbalances

• Incorporate an emphasis on transparency and accountability in financial training and sensitization to help avoid conflict

RESILIENCE-STRENGTHENING
Knowledge & Ability to Adapt
• Invest generally in approaches that can build local knowledge and ability to adapt because these will contribute to people quickly identifying potential problems and determining how to avoid disruptions of service

• Set threshold levels with local providers so that they understand the occurrence and implications of them being exceeded

• Provide training and identify gaps to provide in-service training on:
  » Protocols for service provision and related decision-making in times of normal provision, early action and extreme events
  » Collecting information for diagnosis and adapting, for early warning and for planning
  » Monitoring and evaluation, analysis and information sharing

  » Planning human resources, supplies, tools, support/training, logistics and contingencies
  » cross-sectoral concerns (e.g., sanitation, hygiene, health, nutrition and education concerns if water levels are low)

• Develop methods to ensure retention of such knowledge and abilities to adapt in trained personnel (e.g., participatory selection of committee members and apprenticeships)

Access to Basic Services
• Develop solutions that can ensure access at migratory points for those who migrate

• Encourage improved regular access as well as adaptive service access through better skills at gathering, analyzing and using data for decision-making

• Regular, undisrupted education to more people should help to improve the capacities for adaptive delivery of all services

• Consider storage, rationing or other measures in preparedness plans to ensure that water distribution continues to health and education facilities during periods of low levels of water

• Encourage committees to include members who represent more than one service so that synergies in provision of services and in adapting them can be more easily determined

Participatory Decision-making
• Develop a structured system for voices to be heard in prioritization and decision-making

• Encourage discussions made in lower-level service committee meetings to be filtered up to overall community meetings in this structure so that people’s voices are heard and they feel empowered to alert others when something seems to have deviated from normal

• Provide sensitization on key service adaptability issues so that people with such voices are alert to the types of problems that may arise
• Enable facilities and committees to co-determine service delivery system vulnerabilities and gaps so that they can take ownership of the system and further identify problems as they arise

**Ability to Meet Needs**

• Develop awareness of assets that can address bottlenecks in providing continuous service and work toward providing them through public works, groups and pooled funds

• Create savings funds that can help to provide emergency funds for people who face individual or collective hardship

• Utilize aforementioned skills in gathering, analyzing and using better information to plan for meeting anticipated needs

**Equitability**

• Implement policies and strategies with a focus on improving equity in service access. Concentrate distribution of resources and services on those most marginalised from positive development pathways, doing so based on solid understanding of the underlying causes of their vulnerability

• Involve those who are generally marginalized from regular service access during normal and/or extreme times in the discussions regarding how to make service delivery adaptable

• Design initiatives for service adaptability for scale and equitable reach to remote populations. Promote federations and other such coordination of single-community committees across multiple areas so that collective solutions can help to provide access to relatively remote people

• Design initiatives that can enable migrants to continue to access services when they migrate and that help to decrease the need to migrate so that hardship and host/migrant conflict can be reduced

• Allow individuals to be nominated to collect payments or supplies on behalf of recipients who have other commitments/responsibilities, ill health or significant distances to travel

• Make fees for services scalable based on what people can afford normally and under extreme conditions

**Sustainability and Cost-Effectiveness:**

• Services should be arranged through committees and other structures that promote community ownership and participatory decision-making that will enable them to decide how to adapt proactively to expected changes and reactively to unforeseen changes. Sensitization should be provided to implementers and service providers on how to integrate local/old and external/new views and protocols

• Where possible, self-supply of services through cost recovery should be implemented such that service delivery committees can sustain normal operations and also endure times of crisis through self-supply coping mechanisms and through emergency contingency funds pooled from a portion of raised fees. Encourage the use of local financial arrangements such as savings and loan groups and associations to help support the sustainability of self-supply and the use of these contingency funds. Provide financial management training to encourage responsible collection and use of funds

• Part of this self-supply system should be development of relationships between local committees and practitioners and private vendors who can evolve to more sustainably take the role of supplying needed parts and supplies to those who can pay for them with fees. At a higher level, national procurement and logistics systems should gradually take on responsibility for the equipment and stocks supply chain, including early action prepositioning and emergency relief stockpiling, utilizing mobile technology-based monitoring of stocks and other such innovations as beneficial
• Implement initiatives using models that focus on using existing or previously-owned assets so that adoption is more likely and the cost of rapid scaling up can be kept low

• For sustainability of data management and information systems, use such owned and accessible assets as mobile phones, use familiar technologies such as SMS and encourage sustainable handover of the network and equipment and staff retention. Tools such as those for surveys or conveying information must be able to adapt to changing contexts, conditions and uses

• Gather and widely disseminate models for community mobilization for self-supply, for staff retention and for local accountability for service delivery, particularly those that are equitably representative of those who might be excluded from access and that sustainably enable community ownership

• With results from on-going surveillance and other methods, conduct studies of the risk sensitivity of investments by sector and utilize this information to ensure that new investments appropriately consider relevant local risks

• Determine appropriate expenditures on surveillance and early warning for the size and needs of the population and how to best utilize such expenditures through innovative expenditures and commitment of stakeholders to meet these needs

• Conduct analyses of the most cost-effective aspects of the service delivery system and determine optimal innovation and public-private partnership arrangements for other aspects of it

• Encourage innovation by ensuring long-term predictable funding for attempts at local adaptive service provision solutions

• Cost-effectiveness studies, including those recommended in the case studies in this Review, need to be done based on the holistic objectives of coordinated, adaptable, resilience-strengthening, equitable and sustainable service delivery rather than on objectives that may favor cheaper but less effective practices, especially for remote areas. In determining optimal adaptive service provision, balance needs to be determined between equitably and flexibly providing services based on the local context and the extra costs associated with adaptive service delivery to people with difficult conditions. Initiatives involving data management, familiar technology, local sensitization and capacity building tend to have low enough costs to be recommended as cost-effective without need for study. Further study is recommended to determine cost-effectiveness, innovation and further funding needs for other initiatives recommended as effective

Cooperation, Management and Technical Expertise

• Map service delivery geographic coverage and thresholds in each sector and seasonal migratory routes to enable a multi-location continuous service delivery preparedness approach. Drought hotspots and trends should be monitored in ways that contribute to planning for coordinated response through such activities as surge capacity, prepositioned supplies and mobile outreach capacity that can be linked to early warning and used for early action in each service sector

• Create service agreements and partnerships between services that move with migratory populations and sedentary facilities in order to account for these populations in monitoring and supply systems and contingency plans and to complement and support national service delivery systems and cross-border international service delivery cooperation

• Capacity should be developed to enable local service committees (including volunteer arrangements) to be an integral part of coordination of service delivery at the local level with higher level supervision reducing for location-specific needs as this capacity develops. The evolving role of higher level coordination is for surge capacity in times when needs overwhelm local committee
capacity and for spatially integrated solutions for times when problems affect more than one location.

- Promote federations and other such coordination of single-community committees across multiple areas so that sharing, surge and other such arrangements can help to buffer single communities from crises involving lack of service access.

- Harmonize and link service-related indicators with existing early warning and surveillance systems and sector-based national and regional plans so that these indicators feed into wider monitoring systems and can be used to verify results.

- Synergies should be sought to enable coordination both within and across sectors. Performance should be appraised based on results-based indicators that measure referral or direct provision linkages to other services to encourage and coordinate partnerships with a range of service delivery providers in strategic locations for adaptive, comprehensive and needs-based delivery.

- Cross-border conflict and other dynamics need to be considered specifically for addressing drought resilience and specific service adaptability in cross-border areas. As this review could not address such regional cross-border issues, a separate study that specifically addresses identifying lessons learned and recommendations for adaptive basic social services in cross-border areas should be conducted. Such a study might be designed by adapting ACTED’s integrated cross-border model or CARE International’s Regional Resilience Enhancement Against Drought (RREAD) initiative to focus on basic social service access.

- Drought mitigation and natural resource management plans should be developed with cross-border and overall Horn of Africa strategies. Such plans should consider insights from the IGAD Drought Disaster Reduction and Sustainability Initiative (IDDRSI), the resulting IGAD Country Programming Papers, the CGIAR Technical Consortium for Ending Drought Emergencies and Building Resistance to Drought in the Horn of Africa, the Global Alliance for Action on Drought Resilience and Growth, lessons learned in ECHO’s DRRAP and related approaches. Encourage sharing of good practices that promote further innovation from donors through local level committees and practitioners.

### Learning, Knowledge and Information Management

- Use real-time data collection in information management systems with automated reports where possible to identify trends in service delivery need and systems in each sector. Identified trends should inform pre-positioning of stocks and essential equipment, strengthened technical support supervision or additional services to hotspot areas at strategic intervals. Unpredicted spikes in trends or variations in regional hotspots should lead to rapid mass assessment to inform response. Preparedness performance should be measured and reported with comparative analysis across regions and sectors to better inform contingency planning.

- Conduct periodic assessments to enhance the information management and surveillance systems in the region based on data reliability, end user application, early response to findings and recommendations and capacity development needs in support of the social service delivery system. The assessments should capture and make recommendations based on recent innovations and lessons learned from other drought-prone region surveillance systems.

- Create surveillance and early warning reports that have multi-stakeholder agreement on alert levels that trigger early action and can be used to measure outcome variables based on early response and recovery activities.
• Design standard indicators that allow a system to be replicable and scalable and that also acknowledge and overcome potential accompanying risks in limiting innovation and participatory decision making particularly at community levels

• Create standard operating procedures with application of Do No Harm principles and promotion of transparency for the use of mobile technology for information gathering purposes

• Require dissemination schedules for preliminary and final reports of surveillance and early warning systems to ensure accountability and timely information management and to better enable planning and evaluation of services. Reports should be made public through Government owned websites where possible

• Require technical oversight to ensure appropriate use and application of essential equipment and technology that aligns with data requirements, its intended end-users and necessary quality

• Technology and training for better information flows should be used to improve coordination and collaboration. Such improvements should result in service delivery better adapting because of less gaps in accountability and responsibility and better early warning and early action

• Technological innovation in information management such as SMS uses for databases and distant monitoring systems that can provide real-time data should be explored for further beneficial uses. These systems should be implemented in ways that best improve the decision-making of local service management committees and the contingency and coordination capacities of oversight bodies that are designed to be able to most efficiently enable committees to provide continuous service

• Use behaviour change communication (BCC) to promote service seeking and adapting behaviour in a staged, complimentary and systematic approach to ensure a higher probability of uptake of such behaviour. Such BCC should be supportive of other social service sectors, contextually relevant in its content based on conditions faced and the literacy level and amount of exposure to mass media of the intended audience, multi-channeled through coordinated case management, frequent and continuous enough to be ingrained and based on regular daily conversation of people rather than special arrangements. Use such BCC to promote uptake of services and increased knowledge and ability to adapt them so that providers and users of services can better prepare for and respond to trends and shocks

• In consideration of such constraints as the literacy level and lack of mass media, consider alternative approaches. Trusted institutions in the area can help to promote messages and to mobilize and coordinate people. Examples of the use of faith-based organizations for different aspects of such communication and mobilization include the Self Help Groups in Ethiopia, the schools on migration paths in Kenya, and the Family Health Days in Uganda

COUNTRY SECTOR-SPECIFIC RECOMMENDATIONS: EDUCATION
Ethiopia

• The calendar, timetable and age flexibility of Alternative Basic Education (ABE) centres should be maintained as a complementary alternative to formal schools that helps to increase overall access. The capacity building training to the facilitators and the Parent Management Committees (PMCs) should include sensitization regarding how to do flexible calendars in a way that still has a sufficient number of days to teach the full curriculum

• Training should include methods for mobilization of students who have returned from migrating to the ABE centres. Part of encouraging attendance should be ensuring that facilities and materials are conducive to attendance. Curriculum should be tailored to pastoralist and agro-pastoralist interests but should be harmonized across the region. For those who live near and migrate across borders, efforts should be made to ensure that they can easily assimilate into education centres with similar curriculum
• Decisions by CMCs (Centre Management Committees) and facilitators regarding closure of schools and facilitator migration should be done collaboratively based on community input to empower them for these and other decisions

• The rule that facilitators should be from the communities they teach in order to have a grounded understanding of their community’s needs should be strictly enforced. In order to ensure services and commitment, they should be paid even if they don't meet strict government qualification specifications and should be trained to develop needed capacity

• Networking cards should be instituted for all ABEs so that assimilation into ABE centres during migration periods can be facilitated

• Given the different migration patterns that may be observed within the same community, a balance of static and nomadic ABE schools should exist to ensure the provision of education services to all sections of the population

• ABE structures should be established near water points where people migrate to encourage people to not have to choose between access to safe water and education

• Encourage more students to continue beyond grade four with second cycle ABEs or with a hybrid formal and ABE system that caters to their flexibility needs

Kenya

• The ministry’s DRR program should be incorporated into the testable nationwide educational curriculum and should be testable

• As part of the DRR program, the ministry should offer tailor-made additional DRR education as part of life skills to students based on their specific vulnerabilities. For example students in the ASALs should receive additional education on drought and students in the coastal and low plains should receive more information on flooding

• The sector should revitalize the Emergency Preparedness and Response Plan, finalize and revise bi-annually according to the short and long rains outlook. Lessons learned from the nutrition sector have shown that having a current and vibrant EPRP has made the sector more coordinated and organized and has reduced duplication of efforts of implementers

• The sector should conduct a review of the current status of mobile schools and teachers and put in measures to improve their effectiveness in providing good quality education to children

• Research should be conducted on sedentary schools built on nomadic migratory routes to address and document the Do No Harm principles of splitting families and encouraging a sedentary lifestyle

Uganda

• Political prioritisation, budget allocation and technical support should enable creation and implementation of a national rollout plan for nationally agreed standards for hazard risk assessment of critical infrastructure such as schools by 2015

• DRR should be allocated greater prioritisation in future policies and policy revisions that enable the Ministry of Education and Sport to serve its role as a ‘responsible institution’ for multiple disaster-related categories in the DPM Policy

• DRR should continue to be prioritised in teacher and student curriculum development with supplementary materials related to each region based on its hazard profile

• Literacy and numeracy skills to benefit all sectors of service delivery require increased prioritisation and resources. Adult education services should explore possible linkages to existing community level social service delivery structures such as Village Health Teams or Water User Associations
NUTRITION AND HEALTH

Ethiopia

- Take a long view of the investment and steps needed for capacity building that will enable evolution into an adaptive system. Invest in people to evolve with the system through training along various steps while acknowledging that not all areas will evolve at the same pace or in the same ways.

- HEWs should be accountable to the Health Centre which is in turn responsible for their training and supervision and is accountable for their performance.

- CMAM, CBN, ICCM and other initiatives should be coordinated at the health post level by HEWs when capacity allows because of the benefits to adaptiveness of having problems identified, diagnosed and quickly treated or referred by a local facility.

- Despite the desire for more local capacity in general, encourage deliveries to take place at the level at which safe delivery is more likely and at which referral for complications can happen more easily.

- Tie health-care decision-making of community health and nutrition representatives (such as HDA leaders) to an intersectoral community development decision-making body for more empowering results.

- Innovative solutions should be attempted to find sustainable ways to equitably ensure undisrupted health and nutrition service in remote areas.

Kenya

- To ensure sustainability, the government should review its allocation to nutrition compared to the needs in the sector and adjust the allocation to the needs.

- The nutrition sector should share its good practice of having a preparedness and response plan that is kept current and used by donors and implementers to avoid duplication.

- For successful program implementation and timely response, the country health team should anticipate multiple requests from the facilities they support and create preparedness measures for responding and actions of what to do when they are unable to respond. The process of country teams preparing to respond to multiple requests should be repeated at the national level people at the ministries who support them.

- In terms of enabling adaptable and flexible service delivery for nutrition services at a facility and community level, the surge capacity model should be considered for scale up to ensure good coverage for effective impact.

- A study should be conducted on the cost effectiveness of the surge capacity model to determine and document the commitment and investment required from the government to ensure that facilities are able to implement the response package during the various phases for which they plan.

Uganda

- District Health Teams require further human resource management capacity development and technical experts to ensure and support quality service delivery through Village Health Teams given their voluntary role, capacity, resources and workload distribution.

- Good practice and lessons learned during implementation of the use of mobile technologies to support Health Management Information System should be disseminated widely and should continue to be replicated across health departments and across other Ministries. Findings should be shared on how the use of such technology can be adapted to the Karamoja context, as a drought prone and sparsely populated region with seasonal shifts in needs for service delivery, low literacy levels and lack of infrastructure.

- The areas of mental health service provision in the post conflict context of Karamoja merits prioritisation in interventions, greater resource allocation and further study. Likewise, the use of alcohol as a coping mechanism to drought and
its impact on households and children requires attention at local and policy levels

- The sanitation sector requires an overarching, long-term National Plan for Sanitation with clearly delegated lead and implementation roles and responsibilities. The plan should promote a participatory and self-supply approach to sanitation in order to ensure systematic coverage. It should allow for culturally sensitive stages of behavioural change for each region and communities therein, acknowledging differences in baseline sanitation indicators between districts and regions. It should allow for seasonality in access and supply of water as well as the predicted increase in frequency and intensity of hazard events such as flash flooding and drought. It should also be aligned to an Emergency Strategy for Sanitation that is specific to hazard type and complement emergency plans of other sectors. The plan should complement water and health sectors plans, in particular, and reflect both urban and rural sanitation requirements.

- Systematic community level first aid training with messages repeated in multiple settings across sectors should be conducted for local bodies who are often the first at hand for disaster response.

- The current revision of the 1935 Public Health Act should be used as an opportunity to comprehensively integrate nutrition and Disaster Risk Management into the wider health system. The Health Management Information System should have nutrition indicators.

- The recent addition of food security indicators to the Nutrition Surveillance system should more strategically feed into existing early warning systems in the region.

- A medium-term contingency fund should be created to allow for a rapid, independent, external evaluation and verification of findings of the Nutrition Surveillance reports when peaks in trends call for additional assistance in the region. This action should support early warning triggers for early response and preserve the integrity of the system. In the long-term, the aim should be that early warning from food security indicators will trigger early action, diminishing the need for early response to nutrition trends.

**WASH Overarching Regional Recommendations:**

- It is not enough for livelihoods-focused resilience approaches to ensure that water supply enables sufficient quantities of water for livelihood needs. Water supply scheme investments must take into account the needs of households and service facilities as well as livelihoods and accordingly must consider the quality of water. Development of the local system should consider all three of these uses when developing plans for normal access and for adaptive access in times of insufficient normal water supply levels.

- In hotspots and areas where low water levels need to be mitigated, utilize data gathering and coordination to develop solutions such as digging and maintenance of strategic boreholes in Ethiopia and Community Environment Action Plans in Uganda.

**Ethiopia**

- Clearly link the WIF to DRR and specifically EWS during its implementation.

- Continuous capacity building training activities in health, nutrition, water and education in the WASHCOs is needed for the effective implementation of the “One WASH” national programme.

- Formally legalize WASHcos in all states in order to strengthen and expand their mandate, authority and accountability mechanisms. Collectivize them into federations to help mobilize more resources and improve coordination, management and ownership of the water supply schemes so that the services are supplied without disruption and on an equitable basis.

- In remote areas with low capacity, evolving MMT training, private suppliers and cost sharing contributions should be established as ways
to reduce reliance on external funds and make WASHcos sustainable. Strategic boreholes should also be linked to WASHcos so that they can reliably consider them as an option for normal, early action and extreme times.

- Ongoing capacity building should be provided for WASHCOs to address the issues of staff turnover and insufficient capacity. Use apprenticeships or other means of training new members within the existing system to help to make training sustainable. Training should include monitoring water levels as early warning, understanding early warning information, early action options when early warning signs are received and identifying unforeseen problems and determining workable solutions to them.

- Selection and incentives for WASHco and WASH Federation members should be determined in a manner that encourages participatory representation to ensure that they do not create or exacerbate local power imbalances. Women should be enabled and encouraged to actively participate in WASHco decision-making processes.

- Stronger linkages should be created between WASHCOs and HEWs in order to broaden the focus of WASHCOs from solely concentrating on water supply to the full spectrum of WASH services.

- Donor support to the WASH sector should be harmonized.

- Establish contingency funds through collected fees to prevent having insufficient funds for major repairs or drought-related provision needs.

- Provide arrangements for equitable access that is scalable for times of hardship such as waiving user fees for households determined to be poor and vulnerable.

Kenya

- Innovative technology for the water sector must be implemented according to the current water sector structure making sure vertical and horizontal linkages are maintained and that all stakeholders are aware of their role in the system and have the capacity and willingness to keep the system functioning and use it to add value to their contribution to the water sector.

- In a borehole distant monitoring system, a community needs to realize the value of spending money to buy a phone and regular airtime, pay a fulltime operator and use information received from the system wisely.

- At a county level, the CWO should train communities on the system, respond to requests sent by SMS and be responsible with the data submitted monthly by using it as a knowledge base for the water systems in their region and as a platform to promote learning and share good practices.

- At a national level, the water sector stakeholders have responsibilities similar to those at the regional level with an added responsibility for continued investment on systems that enable communities to better manage their water and sanitation services with the ability of making the services flexible and adaptable.

Uganda

- Adaptable, overarching national and regional land and water or natural resource management plans are needed to ensure systematic and complementary coverage across eco-systems, sectors and borders.

- Analysis of the self-supply approach to water provision beyond gathering of experiences with cost analysis to justify possible subsidies, technical support and advice for communities that share the burden of supply with the state should be conducted in the region.

- Recommendations should be reassessed with a view to implement those made by the National Water Policy (2009) on assessing the response of the water resource in times of emergency and formulating a detailed response plan, and those made by the National Water Quality Management Strategy (2006) on the establishment of emergency management plans for all service providers for water related emergencies.
• The Water Emergency Strategy (2004) should be reviewed to align with the National Policy on Disaster Preparedness and Management (2010), recognising deconcentrated functions and roles therein of the Directorate of Water Resource Management, and emergency strategies of other sectors

**SOCIAL PROTECTION**

**Overarching Regional Recommendations:**

• As governance that is accepting and promoting of social protection programmes has helped to ensure success of reviewed programmes, government involvement in and championing of new programmes should be sought and nurtured

• Studies should be done to help to determine how social protection programme measures such as assets for work and cash for work can be tailored to adaptive service needs, especially for pastoralists and others who occasionally migrate

• Although specific review of cross-border practices was not possible, documents and discussions implied that cross-border social protection programs should enable coordination of continued service delivery for those who migrate as pastoralists and/or during times of extreme drought

**Ethiopia**

• Safety net programs should allow for flexibility in the use of contingency funds to enhance vulnerable households' access to basic services

• Risk Financing Mechanisms should be an integral part of social safety net programmes that enables transitory food insecurity to be addressed. Additionally, an RFM should be considered in areas not directly covered by social safety net programmes (Hobson, 2012). The quicker response allowed by prepositioned financing, capacity, institutions, plans and a strong early warning system in such an RFM would minimize service access disruptions.

• Promote more public works on social services such as development of water points and the rehabilitation of water schemes to enhance the continuous supply and utilization of such services

• Promote services such as those that help availability of services and inputs complementary to the asset building program to encourage building long-term capacity of households to overcome shocks

• Capacity building training such as on diversifying activities and promotion of social protection activities and experience sharing between groups such as CCCs and SHGs should be used to enhance their operation, improve buffering of social service access and build resilience to shocks. Embedding them into the EWS to utilize their enhanced strength and knowledge of how conditions are deviating from normal conditions should contribute to better early action and response

**Kenya**

• A majority of asset-for-work social programs tend to target agro-pastoralists who are comfortable leading a sedentary life. However, more research should be done on asset-for-work programs that are suitable for pastoralists

• Efforts should be made in communities to encourage them to develop creative ways of including vulnerable members of the community who may not be able to perform conventional physical work related to the asset

**Uganda**

• The draft Social Protection Policy should be revised to reflect the National Disaster Preparedness and Management Policy and adaptation possibilities for drought and other emergency scenarios

• A comparative analysis is recommended on an adaptable approach to grants/cash transfers, based on increased quantity or frequency of payments during stress times to prevent negative coping mechanisms versus consistent and fixed amounts in grants/cash transfer in order to encourage household level preparedness actions through use of or enhanced linkages with savings and investments structures
• Social service facilities should strengthen linkages with and promote uptake of protection services, such as the Uganda Police Force’s Child and Family Unit

• Further study should be conducted on culturally-specific lessons learned on addressing gender power imbalances within a dual traditional and statutory recognised process

• As private sector partnerships increase, donors and partners should implement gender and culturally sensitive procedures
**ETHIOPIA COUNTRY REPORT**

**ACRONYMS**

<table>
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>ABE</td>
<td>Alternative Basic Education</td>
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<tr>
<td>ASAL</td>
<td>Arid and Semi Arid Lands</td>
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<td>AWD</td>
<td>Acute Watery Diarrhea</td>
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<td>BSS</td>
<td>Basic Social Services</td>
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<td>BOWRD</td>
<td>Bureau of Water Resource Development</td>
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<td>CBN</td>
<td>Community Based Nutrition</td>
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<td>Community Care Coalitions</td>
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<td>Community Health Days</td>
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<td>CMAM</td>
<td>Community Management of Acute Malnutrition</td>
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<td>CMC</td>
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<td>CPP</td>
<td>Country Program Paper</td>
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<td>CSA</td>
<td>Central Statistical Authority</td>
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<td>DHS</td>
<td>Demographic and Health Survey</td>
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<td>DRM</td>
<td>Disaster Risk Reduction and Management</td>
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<td>DRS</td>
<td>Developing Regional States</td>
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<td>DRMFSS</td>
<td>Disaster Risk Management and Food Security Sector</td>
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<td>EOS</td>
<td>Enhanced Outreach Strategy</td>
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<td>Education sector Development Programs</td>
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<td>Early Warning and Response Directorate</td>
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<td>Early Warning System</td>
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<td>EU</td>
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<td>FBG</td>
<td>Federal Block Grant</td>
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<td>FDRE</td>
<td>Federal Democratic Republic of Ethiopia</td>
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<td>GER</td>
<td>Gross Enrollment Ratio</td>
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<td>Gross Domestic Product</td>
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<td>Growth and Transformation Plan</td>
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<td>Household Asset Building Program</td>
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<td>Intergrated Mobile Health And Nutrition</td>
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<td>Joint Action Plan</td>
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<td>Kebele Education and Training Boards</td>
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<td>Acronym</td>
<td>Meaning</td>
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<td>KFSTF</td>
<td>Kebele Food Security Task Force</td>
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<td>Millennium Development Goals</td>
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<td>Maternal Newborn And Child Health</td>
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<td>Non Governmental Organization</td>
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EXECUTIVE SUMMARY

The report focuses in particular on the pastoral and agro-pastoral areas of the country, which are also the most drought-prone. These drylands constitute about 63% of the country’s land mass and are home to 12-15 million people. The delivery of basic social services in these areas is made difficult by the remoteness and lack of education and skills of the population, as well as the nomadic nature of the people. The main hazards that affect the country include conflict, crop and livestock pests and diseases, human diseases (HIV/AIDS, malaria and measles), landslides, earthquakes, floods and drought.

Drought vulnerability in these regions is mostly due to poverty and food insecurity, which in turn are a result of population pressure, small land size, land degradation, low-input and low-technology smallholder subsistence agriculture and the recurrence of drought itself. Recognizing all these factors, the government has made conscious efforts to further develop these regions and bridge the gap with the rest of the country. Ethiopia’s Growth and Transformation Program (GTP) aims to address the drought impacts which affect populations in the lowlands. Similarly, the Developing Regional States (DRS) Joint Program includes a specific pillar on strengthening BSS delivery in these regions by enhancing education and health services and providing support for the construction of water points, schools and health service delivery points.

Nutrition and Health sector. Health service coverage is very low, with 55% of the population having no access to health services (MoH 2013). Despite major national progress towards the achievement of MDG targets relating to child and maternal mortality, HIV/AIDS, malaria and other diseases, much remains to be done in the dryland areas. Chronic and transitory food insecurity remain severe with 10.4% of the population estimated to be chronically food insecure. Of the approximately 10% of children 6-59 months of age who are wasted, 2% have severe acute malnutrition. The provision of antenatal care (ANC) has improved but the level of postnatal care coverage remains extremely low. These problems are mostly accounted for by widespread poverty, low income and education levels especially among women, inadequate access to clean water and sanitation facilities, poor access to health services and increases in the population growth. The long-term and multi-faceted approaches of the National Nutrition Policy and Ethiopia Health Policy are consistent with the approach of long-term sustained investment in building local-level adaptive capacity through the Health Extension Program (HEP). The HEP was created as a proactive local-based preventative alternative to the prevailing emergency-focused reactive relief and curative paradigm. Health Extension Workers (HEWs) are trained and assigned to health posts built in each kebele. Although their role is initially prevention and sensitization, it evolves to include more coordination and curative activities as HEW capacities increase and as sensitization, mobilization and surveillance duties can be absorbed by reliable volunteer leaders in the Health Development Army (HDA). For feeding, this evolution allowed Community Management of Acute Malnutrition to first be the responsibility of the health centre but then to be more responsive when HEWs had curative Integrated Community Case Management capacity (ICCM) and an HDA. For Vitamin A Supplementation (VAS), deworming, and nutrition screening, initial HEW sensitization capacity allowed for Enhanced Outreach Strategy campaigns run by the woreda but added HEW and HDA capacity allowed transition to locally organized Community Health Days (CHD). Demonstrated capacity to manage these activities independently results in them being added to daily HEW routine services. HEWs are initially mostly involved in preventive sensitization for Maternal Newborn and Child Health (MNCH) but are given more curative responsibility as their capacity increases and the HDA can do the sensitization. For deliveries, though, even with increased safe delivery capacity among HEWs, the emphasis remains on sensitization to health centers for safe births. A case study shows how integrated Mobile Health and Nutrition Teams (iMHNTs) are an innovative attempt to combine the equitability of providing services and support to remote areas in Somali Region with sustainability of providing a development role in a way that enables undisrupted service in normal and extreme times and otherwise helps ensure adaptive services while helping the pastoralist HEWs to be trained and evolve.

WASH sector: Reviewed policy documents emphasize the importance of adequate, reliable and clean water
supply and sanitation services that meet livestock, household, service facilities and other water users' demands. Lack of access to WASH services in Ethiopia is one of the major causes of water borne diseases, ill health and low school enrollment, particularly among children and specifically girls in rural areas. DHS (2011) data shows that roughly 95% of urban households have access to improved drinking water while the corresponding figure for rural households is 49%. Schools and health institutions have low levels of access to WASH services with only 31% of schools and 32% of health institutions having access to water supply (NWI, 2012). Limited government and community capacity, inappropriate technological choices, poor design of water supply structures and inadequate infrastructure are often described as the major constraints to water supply delivery, which are accentuated in the pastoral and agropastoral regions of the country. The chapter reviews the training and coordination for WASHCOs in WASH Federations in SNNPR as a case study. WASHCOs manage water distribution, collect water tariffs and undertake minor maintenance and repairs to the water supply scheme. In order to ensure continuous water supply to communities, WASHCOs are trained on scheme management, financial management and borehole hygiene and sanitation. They have been found to improve the communities' capacity to manage their own water supply systems by helping to ensure that there is sufficient quality water available at times when the regular source may be depleted. WASH Federations further help them to diversify risks through joint planning and sharing arrangements. The sustainability of this system lies in the empowerment of the community and is linked to its cost-effectiveness in that water trucking and other temporary solutions can be avoided through early action measures. The second case study analyzed is the Capacity Building and Coordination through Strategic Boreholes and the Evolution of WASHco Support from Mobile Maintenance Teams (MMTs) and Private Suppliers in the Somali region. Due to difficulty in the region accessing supervision, parts and major repair assistance due to remoteness and low literacy levels, MMTs provide regular maintenance and repair works to schemes in remote locations with poor infrastructure; they also provide training to WASHCOs and bring supplies and parts that may not be locally accessible. MMTs also maintain the strategic boreholes which optimize matching a source that can be dug deeply with a water trucking hotspot area that many people can access. They serve as an alternative solution to negative coping mechanisms such as water trucking or using contaminated water sources by ensuring reliable, accessible and safe water sources. The review found that the existence and operation of MMTs and strategic boreholes improved the WASHCOs' ability to predict and prepare for potential problems.

**Education sector:** Problems of the education sector include limited and inequitable access and lack of quality and relevance. Although the national gross enrollment ratio for primary schools has increased from 55% to 95% between 2000 and 2012 (MoE 2012), the Developing Regional States (DRS) have not been doing as well. In pastoral and agropastoral communities there is very low literacy and low value is attached to children's education, especially considering the contribution they can make to their families' livelihoods. Other constraints in these regions include the limited number of schools and technical and financial capacities, the shortage of qualified teaching staff and appropriate materials and limited human and financial resources. Government policies thus recognize the need for adaptable and flexible modes of education in remote pastoral and agropastoral areas through a variety of means including ABE centers, mobile schools and distance learning. A case study of ABEs in the pastoral and agropastoral areas of the Somali region is reviewed. As a result of education delivery through ABE centers, overall enrollment has improved. Given the mobile nature of these communities, the flexibility and adaptability of ABE centers allow children to continue accessing education services without undermining their lifestyles and livelihoods. ABE facilitators receive training and sometimes migrate with the communities to ensure undisrupted service provision. Parent Management Committees (PMC) determine the school timing and calendar according to the community's needs, especially in times of drought and migration. The flexibility of education provision is further enhanced by the use of networking cards which allow children to join other ABE centers and maintain the regularity of schooling by joining other centers during their migration. ABE centers in the Somali region have helped to minimize dropouts and absenteeism rates and have significantly increased the number of people who can access basic education.
Social protection sector: The most commonly found measures put in place to protect vulnerable people are community level social protection mechanisms, the nature of which varies depending on the culture, religion, clan, ethnicity and other socioeconomic characteristics of the population. Vulnerable segments of the population usually get assistance in the form of grains, cash, credit, labor and other forms of support, either in kind or in cash, from extended families, clan members and neighbors. The Productive Safety Net Program (PSNP) is reviewed as a case study. PSNP provides support to vulnerable segments of the population in two ways: 90% of expenditures are cash or food transfers given to households with able bodied members who are engaged in seasonal employment on public works (PWs); the remaining 10% of expenditures are on unconditional food and cash transfers to households without able bodied members. Within PSNP, the Household Asset Building Program (HABP) provides households with access to credit and other technical assistance so that the households’ assets are protected from depletion. The PWs and the recipient households are selected in a participatory process by the community. Currently, the PSNP is not entirely operational in the pastoralist regions: in these areas the safety net component is successfully providing some social protection to the targeted communities but the productive component is not working well. The contingency fund and the Risk Financing Mechanism help to ensure that people can continue to access services and other needs during times of transitory shocks such as droughts. Community Care Coalitions (CCCs) are also reviewed as a case study. CCCs are the kebele-level community-based committees of interested volunteer individuals, groups and associations who represent different subgroups of the population and receive small transfers of cash and other resources to bridge the gaps in social protection for vulnerable people. As for PSNP, CCCs have two types of support mechanisms: 40% of funds raised each year are designated for direct support for consumption and the remaining 60% is designated for productive income generation activities through no-interest loans. Another social protection mechanism reviewed is the Self Help Groups (SHGs) organized and facilitated by Tearfund. SHGs are community-level saving groups formed to mobilize community funds for Income Generating Activities (IGAs). As the pooled savings grow, group members start borrowing money on a revolving credit basis and are thus able to access social services as needed. SHGs also engage in awareness creation activities on matters related to HIV/AIDS, the prevention of harmful traditional practices and the protection of vulnerable children.
Ethiopia is the second most populous country in Africa with an estimated population of over 86 million, 14% of whom are less than four years old, 3% of whom are over 65 and 80% of whom reside in rural areas where they are primarily engaged in agricultural livelihoods (CSA, 2012). Although such agriculture has traditionally been the dominant economic sector, the service sector contributed 45% to the GDP in 2012 while agriculture contributed 44% and industry contributed 11% (NBE, 2013). With an HDI value of 0.396, Ethiopia ranked 173 out of 187 nations worldwide (UNDP, 2013).

The enactment of the Ethiopian constitution in 1995 resulted in a decentralized federal system of administration with nine regional states and two city administrations. The regional states include Afar, Amhara, Benishangul Gumuz, Gambella, Harari, Oromia, Southern Nations Nationalities and Peoples Region (SNNPR), Somali and Tigray and the two City Administrations are Addis Ababa and Dire Dawa. Each regional state has its own constitution with executive, legislative and judiciary bodies. Districts, called Woredas, under each region have their own house of representatives and executive and judicial systems. Kebeles are the lowest level of government administration that fall under the authority of the Woredas.

Sectoral national ministries have corresponding bureaus in each region. Under each regional sector bureau, zone sector offices facilitate coordination and communication between these regional bureaus and the Woredas sector desks. The federal government equitably allocates block and specific grants to each regional administration. Woredas level revenue is

Figure 5: Administrative Regions and City Administrations: Source: UNICEF 2012
treated as overall regional revenue and is reallocated along with these federal funds in block grants to each of the Woredas. Weredass councils then decide how the funds will be spent across the different sectors (UNICEF, 2012). Community Care Coalitions (CCCs), described more fully in Chapter 7, are kebele level committees that have been recently developed in some regions to raise and allocate funds for specific social programs.

The country is sub-divided into three main agro-ecological zones based on elevation: the highlands (Dega), Mid altitude (Woina Dega) and lowlands (Kola). As elevation decreases, annual rainfall is less and is more erratic. Drought-prone lowland drylands are found mainly in Somali, Afar, Oromiya, SNNPR, Benishangul-Gumuz and Gambella regions. These drylands are estimated to constitute about 63% of the country’s land mass and to be the residence of 12–15 million people (REGLAP, 2012). While highland livelihoods are predominantly based on mixed farming between crop and livestock production, lowlands people are predominantly pastoralists and agro pastoralists who depend more on livestock production. The remoteness and lack of education and skills of the population in many parts of these areas contributes to difficulties in establishing reliable and adaptable service delivery mechanisms.

**DISASTER PROFILE**

Different combinations of hazards and vulnerabilities result in different disaster profiles across the country. Hazards throughout the country include conflict; crop and livestock pests and diseases; human diseases such as HIV/AIDS, malaria, measles; landslides; earthquakes; and floods. Figure 7 shows that the hazard considered most important in the lives of people in most of the country is drought from insufficient and erratic rainfall. While droughts affecting the densely populated northern highlands are best known, those impacting the southern highlands and pastoralist economies in the lowlands have predominated over the past 15 years (RTE, 2011). Western and Eastern Tigray, all parts of Somali and Afar regions, the Eastern Ahmara region, South Omo of the SNNPR and Borena Zone of Oromia Region are more prone to drought than others and are classified as ‘high drought-risk areas’ (UNICEF 2012).

Before the mid-20th century there were no adequate and well-organized government structures and institutions that could deal with the problems associated with drought. Similarly, technical capabilities were limited and communication across Ethiopia was difficult (UNICEF 2012). Addressing drought impacts is thus one of the government’s priorities.

Drought vulnerability factors include poverty and related food insecurity. In 2008 there was an estimated 39% of the population that was unable to meet basic nutritional and non-food needs. The poverty gap index was 8.3% in 2004/05 and it was slightly higher in rural areas (8.5%) compared with urban areas (7.7%) (UNICEF 2012). Root causes of such poverty and food insecurity include population pressure, small land size, land degradation, low-input and low-technology smallholder subsistence agriculture, livestock and crop pests and diseases, economic pressures and the recurrence of drought conditions itself (UNICEF, 2012).

As shown in Table 2, millions of people have been affected by drought-triggered disasters in roughly four out of every ten years in the past two decades. Although people living in the drylands are experienced at temporarily migrating and otherwise adapting to optimize water and land use, various factors have made them more vulnerable to suffering during extreme droughts (Cabot Venton et al, 2012). The particular vulnerabilities related to disruptions of service delivery in each sector from these droughts, particularly in the drylands, will be the focus for adaptability in the following chapters.
POLICIES, STRATEGIES AND PLANS

Over the past two decades, the government has implemented consecutive development plans toward achieving social service related targets of the Millennium Development Goals (MDGs). These include achievement of universal primary education, reduction of child mortality, improvement in maternal health and combating HIV/AIDS, malaria and other diseases. These include the Poverty Reduction Strategy Program (PRSP), the Sustainable Development and Poverty Reduction Program (SDPRP) (2002-2005), the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) (2005-2010) and recently, the Growth and Transformation Program (GTP) that runs between the years 2010 to 2015 (FDRE, 2010).

The GTP sets the vision for the country as a middle income, democratic and developing state and a carbon neutral climate resilient economy by 2025. Its main objectives are to:

- Maintain an average growth rate of at least 11%;
- Expand and ensure the quality of basic social services such as education and health and achieve the related MDGs targets;
- Expand economic infrastructure and accelerate industrial growth;
- Improve productivity of small holder farmers through the scaling up of good practices and the adoption of new technologies;
- Ensure linkages between agriculture and other sectors;
- Establish suitable conditions for sustainable nation building through the creation of a stable democracy;

Table 2: Number of People affected by drought (in Millions)

<table>
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<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Affected</td>
<td>7.75</td>
<td>7</td>
<td>6.5</td>
<td>4.9</td>
<td>12.6</td>
<td>2.6</td>
<td>6.4</td>
<td>6.2</td>
<td>3.75</td>
</tr>
</tbody>
</table>

• Ensure the sustainability of growth by realizing all the above objectives through a sustainable macroeconomic framework.

The GTP will also focus on addressing drought impacts which affect populations in the lowlands to a greater extent (UNICEF 2012). A comprehensive Disaster Risk Management (DRM) system is called for to reduce disaster risk and the impacts of disasters. The urgency behind this approach is also conveyed by a host of other national policy documents such as the Agricultural Sector Programme and Investment Framework and the Draft Policy on Disaster Risk Management. At the international level, the Hyogo Framework for Action and the Africa Regional Strategy for Disaster Risk Reduction provide further guidance (FDRE SPIF, 2012).

Disaster Risk Reduction Policy of Ethiopia

In the evolution of institutional arrangements for DRM, the Relief and Rehabilitation Commission (RRC) was first established after the 1973/74 famine to provide relief supplies to drought victims. The National Policy on Disaster Prevention and Management (NPDPDM) was then adopted with an accompanying policy directive in 1993 and with further policy implementation guidelines developed in 1995. In that year, linking relief and development was emphasized when the restructured government renamed the RRC as the Disaster Prevention and Preparedness Commission (DPPC).

The National Disaster Prevention and Preparedness Committee (NDPPC) was given disaster management policy making and oversight responsibilities in 1993. In 2003, emergency sectoral task forces were established, including such offices as the Ministries of Agriculture and Rural Development, Health and Water Resources. In 2004, the DPPC was split such that the new Disaster Prevention and Preparedness Agency (DPPA) was to focus on emergency response and the new Food Security Coordination Bureau (FSCB) was to focus on responding to chronic food insecurity. After being subsumed by the Ministry of Agriculture and Rural Development (MoARD) in 2007, the DPPA was renamed as the Disaster Risk Management and Food Security Sector (DRMFSS). This paradigm shift in the disaster management approach from a drought relief focus to a proactive multi-sectoral, multi-hazard DRM approach is defined in the National Policy and Strategy on Disaster Risk Management (NPSDRM) (FDRE, 2010).

The NPSDRM was endorsed by parliament in July 2013 but has yet to be enacted through legislation that is likely to include significant institutional reform. It proposes heavy decentralization of DRM functions, resources, and accountabilities to facilitate multi-hazard mapping, risk analysis and resource mobilization. It also proposes the establishment of a Federal level Disaster Risk Management Council (FDRMC) as the highest policy making and oversight body for DRM to be chaired by the Prime Minister with representatives from most government Sectoral Ministries. Within the administrative hierarchy, each region is supposed to have its own DRM Councils, followed by the Zonal, Woredas and Kebele Administration DRM Councils. It also gives provisions for sectoral mainstreaming of DRM, emphasizing cross cutting issues and recognizing the role of community organizations and civil society in DRM. Finally, the policy aims to address issues such as government capacity at all levels, coordination and cooperation among development partners and government bodies and the lack of a coherent and comprehensive approach to DRM (UNICEF 2012).

The Pastoral and Agro-Pastoral Development Policy

The livelihood of pastoralists depends heavily on livestock production. The pastoralist areas are characterized by adverse weather conditions leading to frequent drought and food insecurity, conflict and lack of adequate infrastructural services as well as low capacity of governmental institutions. Historically the pastoral and agro pastoral areas have been sidelined from the country’s development efforts and as such, a need for a specific policy document that addresses the specific context of these areas has arisen. In the short term, the policy envisages that the needs of pastoralists and agro pastoralists will be adequately reflected in all national policy and planning frameworks, that the vulnerability of poor people to climatic shocks (particularly droughts and floods) will be reduced, their
capacities to respond to climate change strengthened and finally, that the inhabitants will benefit from systems of good local governance (FDRE, 2008).

In the long-term, the government envisions a stable pastoral and agro pastoral community through the facilitation of gradual and voluntary transition towards permanent settlement of the community, particularly along the perennial river banks (FDRE, 2008). To accommodate this the policy establishes that the government will provide support for the expansion of irrigation through water harvesting at household level and strengthen the construction of multi-purpose dams to support irrigation. This will enable pastoral and agro pastoral people to adopt a sedentary lifestyle with diversified and sustainable sources of income.

The Developing Regional States (DRS) Joint Program

In 2009, the government, supported by development partners, carried out a formal review of the development progress of Developing Regional States (DRS) (Afar, Beni Shangul-Gumuz, Gambella and Somali) and identified the need for a separate program to address these regions’ slow progress. This led to the design of the “Joint Program to Enhance Public Service Delivery for Accelerating Development Outcomes in the Developing Regional States” in 2011 which was implemented from 2012.

The review identified the major causes of the slow development of DRS which include gaps in planning, budgeting and implementation capacity; gaps in human resources management; inadequate budget and inefficient allocation of resources and poor regional resource mobilization (DRS 2013). These regions represent a large portion of the most underdeveloped parts of the country and they are governed by relatively young administrations which have lower capacities when compared with other more developed regions. DRSs have less developed infrastructure compared with the central parts of the country and conflict has affected their development trajectory. Moreover, they are often characterized by poor access to social services and poor quality in their delivery, underdeveloped agricultural and agro-pastoral activities and natural resource degradation due to inadequate management. The livestock industry is constrained by the prevalence of killer diseases (which are in turn a result of low coverage of veterinary care and poor livestock management systems), difficulty in trading livestock within and across borders, limited access to credit financing and inadequate marketing facilities and infrastructure (DRS 2011).

Although programs of national scope are being implemented in the DRS regions, the pace of development in most sectors has been much slower than more developed states. The DRS Joint Program aims to increase the resilience of these regions’ populations by strengthening productive capacities. It supports regional and woreda level interventions with a decentralized and integrated approach, focusing initially on a small number of woredas (22 in total across the four states) and then expanding the support to other woredas based on the availability of funds and on the successful completion of the pilot. The DRS Joint Program is highly participatory: beneficiary communities have an active role in both the planning and implementation phases and the demand for activities comes from communities and local government bodies.

The DRS Joint Program has three main pillars (DRS 2011):

a. Building Capacity for Quality Local Governance which aims to strengthen the capacities of federal government bodies to support DRSs to build stronger and better resourced plans;

b. Strengthening the Delivery of Basic Social Services (BSS) to close the gap between DRSs and the other states and increase BSS access and adaptability;

c. Building Capacity for Environmentally Sustainable Livelihoods by strengthening capacity for integrated sustainable livelihood services.

The BSS pillar relies largely on the successful implementation of the first pillar on local governance. It adopts a series of strategies to enhance education and health services across DRSs as well as providing support for the construction of water points, schools and health service delivery points. It also aims to strengthen capacities to identify and develop community plans for supporting the most vulnerable people. The Program supports regional governments through linkages with
regional universities to adapt the primary school curriculum to the needs of the population and in terms of health services, it emphasizes an integrated district health services strengthening approach.

In the Somali region the Joint Program has facilitated community involvement in planning and implementation of kebele development programs and it has led to increased accountability at all levels: community members have started to hold woreda and regional bureaus for health, education and WASH services accountable for the implementation of agreed activities (DRS 2013).

Some of the notable achievements of the program include: expanded access to basic education through the expansion of classrooms at ABE schools; 474 HEWs from DRS woredas have received training on the management of illnesses; sensitization workshops were conducted; 13 primary schools (4,550 students) received access to potable water services through water harvesting bherkats or the direct installation of nearby water systems; and sanitation services were installed in 10 primary schools (3,500 students) (DRS 2013).

However, the program has also faced some challenges in its implementation. Firstly concerning financial resources, the actual budget available to implement activities has been lower than funds available and the release of funds to woredas has been somewhat delayed. Most woredas have had capacity issues with some woreda officials being unfamiliar with government procurement rules and regulations as well as high staff turnover. Moreover, given the remoteness of the DRS regions it has been difficult to reach people, especially for planning and monitoring at kebele and community level. Finally, some sectors such as health have experienced a top-down approach to planning rather than being participatory (DRS 2013).

**Functionality and Effectiveness of the Policies**

As a result of the pro poor policies implemented and the institutional arrangements put in place, Ethiopia has reduced the number of people living under the poverty line who are vulnerable to various sources of risk. The number of people living in poverty decreased from 49.5% in 1994/95 to 29.6% in 2010/2011 (MoFED, 2010). Since 2004/05, the country has registered economic growth of over 10% per year until 2011 a slight reduction in the growth rate to 8.8% in 2012. The real GDP per capita also increased from USD 248 in 2004/05 to USD 507 in 2012 (NBE, 2013). However, rural-urban disparities remain, with a higher proportion of people living in poverty in rural areas (30.4%) compared with urban areas (25.7%). Although high incomes are not necessarily required to ensure access to basic social services, persisting high poverty rates will continue to encourage migration away from areas where services are located and will also inhibit such adaptability and resilience-strengthening advancements as cost-recovery for services and education for children who must work to meet families' income requirements.
INVESTMENT IN SOCIAL SERVICES IN ETHIOPIA

The legal basis for the right to social services in Ethiopia emanates from the 1994 Constitution. Article 90 of the Constitution states that, resources permitting, policies shall aim to provide all Ethiopians with access to public health, education, clean water, housing, food and social security. For instance, in the education sector, all children are entitled to free access to primary education. As part of the strategy, Alternative Basic Education (ABE) services have been expanded in pastoralist areas. In the health sector, treatment of communicable diseases such as Tuberculosis, HIV/AIDS and services such as immunization, maternal and neonatal health care are provided free of charge. The Health Extension Program (HEP) and the National Nutrition Program provide free services for basic health interventions that include EPI, free impregnated bed nets, pneumonia, and treatment of malaria and severe malnutrition.

In collaboration with development partners, the government has been making substantial investment in the provision of basic services. While the contribution of ODA is substantial, government investment on social services has been increasing over the past few years. Since 2004, at least 15% of government expenditure (per year) has gone towards the provision of social services (Table 3).

### Table 3: Expenditure on Social Services (in millions of Birr)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Expenditure</th>
<th>Social Services</th>
<th>% age of Social Services Expend as % of the total Expend</th>
<th>Percentage change in Social Service Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/05</td>
<td>24803</td>
<td>3,839</td>
<td>15.48</td>
<td></td>
</tr>
<tr>
<td>2005/06</td>
<td>29325</td>
<td>4,996</td>
<td>17.04</td>
<td>30.14</td>
</tr>
<tr>
<td>2006/07</td>
<td>35,607</td>
<td>6,198</td>
<td>17.41</td>
<td>24.06</td>
</tr>
<tr>
<td>2007/08</td>
<td>46,915</td>
<td>8,662</td>
<td>18.46</td>
<td>39.8</td>
</tr>
<tr>
<td>2008/09</td>
<td>57,775</td>
<td>10,249</td>
<td>17.74</td>
<td>18.3</td>
</tr>
<tr>
<td>2009/10</td>
<td>71,334</td>
<td>12,349</td>
<td>17.31</td>
<td>20.5</td>
</tr>
<tr>
<td>2010/11</td>
<td>93,831</td>
<td>16,057</td>
<td>17.11</td>
<td>30.0</td>
</tr>
<tr>
<td>2011/12</td>
<td>124,416.70</td>
<td>21,054.80</td>
<td>16.92</td>
<td>31.1</td>
</tr>
</tbody>
</table>

Source: National Bank of Ethiopia (Various years)

Net ODA flow to Ethiopia has increased from USD 1.8 million in 2004 to USD 3.5 million in 2011, with an average annual growth rate of 8.4% (World Bank, 2013). The figure sharply increased after 2006 during which the Protection of Basic Services Project (PBS) was launched (Figure 2). The major areas of support are targeted at the agriculture, education, health and water sectors, with the health sector receiving the largest proportion (UNICEF 2012).

Approach to National Disaster Risk Reduction and Management in Ethiopia

Over the years, Ethiopia has put in place several institutions to protect its population from disasters and manage the consequent adverse effects these entail. Most of these institutions are designed to make sure that the population, particularly people in drought prone areas, has the means to address basic needs through food and other essential social services.
Disaster Risk Reduction and Management and Food Security Sector (DRMFSS)

Presently, the main responsibility for DRM rests on the Ministry of Agriculture’s Disaster Risk Management and Food Security Sector (DRMFSS). The sector comprises of the Early Warning and Response Directorate (EWRD) and the Food Security Directorate. Under DRMFSS are also the Emergency Food Security Reserve Administration and the National Disaster Prevention and Preparedness Fund.

The two directorates are further subdivided in teams which have different roles and responsibilities. The EWRD includes the Disaster Risk/Hazard Monitoring, Emergency Logistic Coordination Case Team; the Emergency Finance and Procurement Case Team; the Aid Agencies’ Affairs Coordination Case Workers and Early Warning and Response Information Management Case Workers. The Food Security Directorate is composed of the Resettlement Coordinate Case Team and the Safety Net and Household Asset Building Case Team.

The EWRD is responsible for the collection, analysis and dissemination of early warning information. Currently, the EWRD collects early warning information on a regular basis from the District (woreda) level in nine Regional States and one administrative council. The Regional States each have their own Disaster Management Bureau with structures performing similar functions at Zonal, Weredass and Kebele level. The types of early warning indicators collected include the occurrence of extreme conditions such as hail storms, unseasonal rainfall, and extreme temperature; ploughed and cultivated land available; supply and distribution of agricultural inputs; crop condition and production prospects; disease and pest outbreaks affecting crops and livestock; supply of feed and water for livestock; sudden movement of livestock; nutrition status of the population; emergence of conflicts and spread of human diseases (FDRE SPIF, 2012).

The early warning information is disseminated on a regular basis through a monthly Early Warning and Response Bulletin prepared by DRMFSS in Amharic and recently also in English. The regional states are expected to duplicate the early warning information and distribute it to the relevant structures under their jurisdiction. However, a study by IFRC and UNDP (2013) showed that the EWS is not yet a truly multi-hazard information collection and dissemination tool, as the majority of data gathered relates only to food security and drought issues. Moreover, the ‘backflow’ of information was found to be weak given the bureaucracy involved and the weak communications infrastructures. as in Figure 10:

Promoting Basic Services (PBS) Project

Following the political tension after the 2005 election, some development partners suspended direct support to the government which was used to finance pro poor policies. Through the “Promoting Basic Services Program” (PBS), development partners such as the World Bank introduced a new mechanism for channeling funds to the government of Ethiopia to ensure the population had continued access to basic services. The objective of the program is to contribute to reducing poverty and improving the standard of living of Ethiopians by expanding access and improving the quality of the decentralized delivery of services in education, health, agriculture, water
supply and sanitation and rural roads, while improving accountability and transparency in the provision of these basic social services (African Development Fund 2012). Donors view the project as a platform that provides a harmonized framework for the provision of aid, avoiding a return to fragmented bilateral project activities (EU, 2012). Initiated in 2006, the program is currently in its third phase and it serves about 84 million people across Ethiopia (Human Development Africa 2013). The first two phases of the project terminated in 2012 and were funded by 12 donors through a World Bank-managed trust fund; the third phase, which was initiated in 2013, received approval of $600 million financing by the World Bank in September 2012. Due to the decentralized administrative structure and devolution of power, regions and Woredas are responsible for providing basic social services. PBS funds are mainly channeled through the Federal Block Grant (FBG), which uses a formula based approach to allocate funds for regional and local governments to execute their responsibilities. In principle, both regions and Woredas can decide how to allocate their budgets between sectors and between recurrent and capital expenditures. Available data shows that PBS funds channeled to the government increased from USD 169 million in 2006 to USD 446 million in 2010 (EU, 2012).

The evaluation of the first two phases of the project found that the project was still relevant and should be continued (EU, 2012). The report also documented PBS’ contributions to the rapid expansion of basic services, and to qualitative improvements in financial management, transparency and accountability. PBS has helped Ethiopia make progress towards the achievement of the MDGs. It has strengthened Ethiopia’s delivery of public services by enabling woredas to hire 100,000 additional primary school teachers, 38,000 HEWs and 45,000 agricultural extension workers, and it has supported the setting up of 500 woreda road desks to help improve rural transport services (Human Development Africa 2013). Despite its strong track record on implementation and results, and on dialogue with the federal government, it is sometimes argued that PBS is a temporary ‘fix’ and not a long-term solution (EU, 2012).

The European Commission (EC) SHARE Programme
An initiative of EC’s ECHO and DEVCO referred to as Supporting the Horn of Africa Resilience (SHARE) intends to enhance resilience through the following components of integrated multi-sector recovery support that links humanitarian and long-term development interventions (EC DG ECHO, 2013):

i. Support to PSNP’s Risk Financing Mechanism (RFM) to address transitory needs and give extended support to PSNP woredas with chronic caseloads during shocks

ii. Integrated Nutrition Services to support mother and child malnutrition programmes in pastoral and agro-pastoral areas

iii. Integrated Recovery Support for most vulnerable drought affected people in the Afar, Eastern Tigray and Amhara regions and for refugee hosting communities neighboring Dolo Ado refugee camp in Somali region.

iv. Pastoral Animal Health Service Delivery, primarily for small ruminant diseases (SRD).

v. Sustainable Environmental Protection and Watershed Management for the Bale Eco area of Oromia Region that serves as the upper catchment area for south eastern lowlands and pastoral areas.

vi. Strengthening Institutionalized Coordination Structures and Harmonization Mechanisms linking federal and regional level administrations and fostering stakeholder dialogue and experience sharing.

vii. SHARE is designed as a medium term response to the 2011 Horn of Africa drought that will be complemented by long-term interventions.
**IGAD’s Disaster Resilience and Sustainability Strategy Framework**

Following the 2011 drought in the Horn of Africa, which affected over 13.4 million people, the Heads of States of IGAD member States met at a Summit in Nairobi (September 2011) which resulted in the Nairobi Declaration. During the meeting an agreement was reached to develop the Horn of Africa Regional Disaster Resilience and Sustainability Strategy Framework to reduce the impact of disasters in the region (MoA, 2012). In line with this strategy, Ethiopia developed a Country Program Paper (CPP) for ‘Drought Resilience and Sustainability Initiative’ with the objectives of improving food and nutrition security and enhancing resilience to external shocks with a particular focus on the Arid and Semi Arid Lands (ASAL). The program has six components that include Natural Resource Management, Market Access and Trade, Livelihood and Basic Services Support, Disaster Risk Management, Research and Knowledge Management and Peace Building and Conflict Resolution (MoA, 2012).

The Livelihood and Basic Services support has a sub-component that focuses on improving access to Basic Social Services with the following Priority Interventions:

i. Promotion of education in ASAL communities: Improvement and rehabilitation of education facilities: e.g. development and scaling-up the mobile education services

ii. Increase the availability and quality of public and private health services in the ASAL: Improvement and rehabilitation of animal health facilities; development and scaling-up the mobile health care; development of one health services

iii. Promotion of dietary diversification: Raising awareness on nutrition and hygiene
iv. Rehabilitation of drinking water resources

v. Establishment of sanitation facilities

Much progress has been achieved in establishing these policies, frameworks and strategies for DRM and its linkages with development initiatives, but the continuing lack of implementation of a comprehensive DRM policy with appropriate restructuring of institutional arrangements continues to hamper initiatives toward ensuring adaptability of basic social services.
As mentioned in this Review's introduction, the focus of this Review is on adaptive social service provision. Although food and livelihood security programmes that encourage the ability to access more food and income should inherently improve demand for food and all services, this type of resilience-strengthening is covered extensively in other reports. Accordingly, the focus of this chapter is specifically on approaches to improve the adaptability and strengthen the resilience of the supply of nutrition and health services.

Health service coverage in Ethiopia is low with 55% of the population having no access to health services (MoH, 2013). Among the causes of and contributing factors to ill-health are widespread poverty, low income and education levels especially among women, inadequate access to clean water and sanitation facilities, poor access to health services and population growth. Chronic and transitory food insecurity remain severe with 10.4% of the population estimated to be chronically food insecure, over 55% of the 15 million people in the 286 identified food insecure districts identified as food insecure and at a steady rate since 2000 of approximately 19% of children 6-59 months of age who are wasted (UNICEF, 2012; DHS, 2011). Such malnutrition, nearly double in rural areas compared to urban areas and higher among children, pregnant women and lactating mothers, is attributed to food insecurity and lack of adequate knowledge about the importance of a balanced diet and skills of food preparation.

Other indicators of poor health include: ‘crude’ death rate of about 14.8 per 1,000 population (MoH, 2013); life expectancy at birth (LEB) of males at 49.7 years and females at 52.4 years (MoH, 2013); infant mortality rate (IMR) of 47 per 1,000 live births (UNICEF, 2013); child mortality rate (CMR) of 172 deaths per 1,000 (MoH, 2013); maternal mortality rate (MMR) estimated at 500-700 per 100,000 (MoH, 2013); total burden of disease, as measured by premature death from all causes, of approximately 350 deaths per 1,000 people per year (MoH, 2013). This disease burden is mostly accounted for by pre-natal and maternal conditions and by acute respiratory infection (ARI), followed by malaria, nutritional deficiency, diarrhea and AIDS. Diseases that affect children under the age of 5 years such as ARI, diarrhea, nutritional deficiencies and measles account for 33 percent of deaths. Although largely preventable, childhood and maternal illnesses and communicable diseases are the major causes of death.

Provision of antenatal care (ANC) has improved with the percentage of pregnant mothers who received ANC from a skilled provider increasing from 28% in 2005 to 34% and an additional 9% from Health Extension Workers (HEW) in 2011 (DHS, 2011). However, the level of postnatal care coverage remains extremely low. 92% of women with a live birth in these five years did not receive a postnatal checkup. Among those that did, 4% were examined within 4 hours of delivery, 2% within 4-23 hours, 1% within 1-2 days and 2% within 3-41 days of delivery. In total, only 7% of women had received postnatal care within the recommended two days.

Despite such problems, major progress has been made toward achieving MDG targets regarding child mortality, maternal mortality, HIV/AIDS, malaria and other diseases. As shown in Table 3, the MDG of reducing under-five mortality rates of deaths per 1,000 live births from 146 in 2000 to 68 was achieved in 2013. Infant mortality rates of deaths per 1,000 live births decreased from 121 in 1990 to 47 in 2013. Also chronic malnutrition among children has been decreasing with stunting prevalence decreasing from 52% to 44% and underweight children decreasing from 35% to 29% from 2005 to 2011 (UNICEF, 2014).
Droughts and food crises continue to cause situations such as the 6 million people requiring emergency food assistance in 2008. Although the Horn of Africa food crisis affected an estimated 3.76 million people, including more than 300,000 children in need of treatment for severe acute malnutrition in SNNPR and parts of Amhara and Oromia regions and disease outbreaks elsewhere in the country, however, progress toward meeting these MDGs and in helping to avert catastrophe in 2011/12 have been attributed to greater resilience among low-income households through PSNP (described in a subsequent chapter), related better food security and access to basic social services and community-based programs implemented through sustained investment in the Health Extension Program (HEP) such as Community-Based Nutrition (CBN), Community Management of Acute Malnutrition (CMAM) and Integrated Community Case Management (ICCM).

Specific challenges are faced in achieving such progress in the drought-prone drylands and pastoralist populations. Recurrent droughts exacerbate conditions of people such that more health and nutrition services are needed during crises. By causing reduction in livelihood productivity and overall resilience, such services are also potentially needed for long periods thereafter. For remote populations, health centres are distant, any existing health posts are long distances from supplies and equipment & local staff are often relatively insufficiently educated and skilled.

### Nutrition and Health Policies

The National Nutrition Strategy (NNS) is a guiding framework for an integrated approach to coordinating and supporting implemented nutrition activities across all sectors. It recognizes the importance of HEP and community-based activities in addressing malnutrition of vulnerable populations, supports infant and young child nutrition activities and prioritizes infants and children younger than 5, especially those less than 2 years old, and pregnant and lactating women (US AID/IYCN, 2011). The National Nutrition Program (NNP) was formulated in 2008 to enable NSS implementation by targeting vulnerable segments of the population, especially mothers and children, through cost-effective and sustainable interventions to improve nutritional knowledge and skills (UNICEF 2012; US AID/IYCN, 2011). Since many factors other than food affect the prevalence of malnutrition in Ethiopia, the initial NNP aimed to effectively reduce malnutrition and achieve nutrition security through a multi-sectoral “programmatic approach” that provides all actors working in all service, food security and emergency sectors to communicate and collaborate to achieve harmonization of programs and their inputs (Rajkumar et al, 2012). The revised 2012/2013 NNP expands this consideration of all dimensions and spectra of nutrition in a ‘Lifecycle Approach’ through strengthened and new initiatives (FDRE MoH, 2013).

The National Food Fortification Programme’s training material and the Integrated Blended Nutrition Training Module are being developed to improve competence.

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**Table 4: Under-five mortality rate**

<table>
<thead>
<tr>
<th>Country or territory</th>
<th>Under-five mortality rate (U5MR) (deaths per 1,000 live births)</th>
<th>Millennium Development Goal target for 2015</th>
<th>Annual rate of reduction (ARR) (percent) 1990-2012 U5MR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1990</td>
<td>2000</td>
<td>2012</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>204</td>
<td>190</td>
<td>220</td>
</tr>
</tbody>
</table>

of HEWs in promoting nutrition. The Accelerated Stunting Reduction Initiative (ASRI) was formed to identify evidence-based high-impact interventions and strategic approaches for reducing the stunting problem.

Ethiopia's Health Policy (1993) emphasizes the importance of achieving universal access to a basic package of quality primary health care services by all segments of the population, with a particular focus on mothers and children. The policy calls for the decentralization of health services, the promotion and coordination of inter-sectoral linkages, the development of promotive and preventive aspects of health care and the need for capacity building.

In order to achieve the above mentioned goals, the government has formulated a 20 year health sector development strategy, which is being implemented through a series of five year programmes. Some of the strategies and plans that were developed in line with the strategy include the HEP, the Strategic Plan for Malaria Prevention and Control, the Nutrition Extension Package and various five year health sector development programs. After the first Health Sector Development Program (HSDP I) in 1996/97, subsequent HSDPs have been aligned with the MDGs and government development frameworks such as the Sustainable Development and Poverty Reduction Program (2002-2005) and the Plan for Accelerated and Sustained Development to End Poverty (2005-2010). The fourth Health Sector Development Program (HSDP IV), launched in 2010, was formulated in alignment with the Growth and Transformation Plan (2010-2015). HSDP IV aims to reduce morbidity, mortality, and disability and to improve the health status of the population. One of the strategic objectives of the program is to improve the manner in which the health system adapts to cope with existing and emerging disease epidemics, acute malnutrition, and disaster events through improved health risk identification, early warning and response to and recovery from the disaster events.

Policies and strategies formulated and implemented by the national government in an effective framework for improving maternal and neonatal health include Making Pregnancy Safer (2000), Reproductive Health Strategy (2006), Adolescent and Youth Reproductive Health Strategy (2006) and the Revised Abortion Law (2005). These policies emphasize the need for free key maternal and child health services and the availability of HEWs trained in clean and safe delivery and Health Officers trained in Integrated Emergency Obstetric and Surgery (IEOS).

**Investment in Nutrition and Health in Ethiopia**

Developing the new proactive and adaptive community based nutrition and health service delivery system and continuing to nurture it through its various stages of evolution in different locations has required significant long-term investment over the past ten years. These include investment in the construction of hospitals, health centers and health posts and the training and deployment of the manpower required. Such spending has been increasingly pro-poor. In some areas, poorer households are pre-identified to receive free health services with a certificate that is valid for three years. According to UNICEF (2012), 70% of health facilities have formally introduced waiving women's fees. As some facilities have an informal system, only 19% of facilities remain without any form of fee waiver system. The additional establishment of the MDG fund should result in increased funding for reprioritized maternal health (MOH HSDP IV, 2013). In addition to government spending, health facilities are allowed to retain and use the fees that they are increasingly collecting for some services. The average amount collected per health centre increased from ETB89,702 in 2007-2008 to ETB 134,000 in 2008-2009 (UNICEF 2012).

Despite an increase in the proportion of government budget allocated to the health sector from 4% to 8% over the last 10 years, government investment in this area remains lower than in most Sub-Saharan African countries (World Bank 2013). And, although per capita budget allocation is increasing over time, the allocated budget for 2012/2013 was below the estimated need for delivering quality care (FDRE MoH, 2013). To help with such funding shortfalls, insurance schemes is one avenue being explored in addition to the funding sought from development partners.

For Nutrition, the total budget required for implementing the NNP from 2013-2015 is estimated to be US$547 million. Nearly 50 percent of the total budget
is planned for the year 2014 while one-third will be used to finance the last year of the plan. Of the total budget, 88.5 percent will be applied to improving the nutritional status of mothers, infants, young children and children under the age of 5. Even with the introduction of the MDG Performance Fund, there is a financing gap of US$175 million in 2014 and of US$93.6 million for 2015. A substantial portion of these needed funds may have to come from the government treasury and nutrition development partners. Successful implementation of the NNP requires timely mobilizing resources and minimizing uncertainties when planning nutrition interventions.

The HEP approach
All of these policies and strategies are geared toward better enabling community-based practitioners to improve prevention and cure of nutrition and health problems. This approach of long-term sustained investment in local capacity is the HEP.

"The flagship program to ensure health service delivery is the Health Extension Programme (HEP), which is the main vehicle for prevention, health promotion, behavioural change communication (BCC) and basic curative services through effective implementation of essential packages and mobilization of the Health Development Army. The desired result is a community practicing and producing good health, being protected from emergency health hazards and having access to quality health care."

"HEP is an innovative community-based strategy to deliver preventive and promotive services and selective high impact curative interventions at community level. It brings community participation through creation of awareness, behavioural change, and community organization and mobilization. It also improves the utilization of health services by bridging the gap between the community and health facilities through the deployment of Health Extension Workers (HEWs). The main objective is to improve access to essential health services provided at village and household levels, contributing to the improvement of the health status of the families, with their full participation, using local technologies and the skill and wisdom of the communities."

Source: FDRE MoH, 2013

Under the three-tier system introduced through HSDP IV (MOH, 2010), a health center provides both preventive and curative services and serves 60,000 to 100,000 people. It also serves as a referral center and practical training institution for the more than 30,000 community-level HEWs deployed at approximately 15,500 health posts built to serve 3,000 to 5,000 people since the launching of the HEP in 2004.

The HEP promotes four areas of care: disease prevention and control; family health; hygiene and environmental sanitation and health education and communication. The 16 extension packages that are provided fall within these categories. An agriculture, urban and pastoralist version have been designed to increase the program’s adaptability and flexibility and to ensure that the needs of different communities are taken into account (Bilal et al 2011). HSDP IV aims to strengthen the HEP by scaling up the urban and pastoral HEVs and improving the quality and coverage of HEP in rural areas. The program gives special emphasis to the DRS regions by developing and implementing context specific health service standards. It also provides capacity building and special support for health planning, budgeting, implementation, monitoring and evaluation in these regions.

HEWs are recruited from their communities following specific criteria: they are female (except in pastoralist areas), at least 18 years old, have at least 10th grade education and speak the local language. The selection of HEWs is made by a committee with representatives from the community and the district health office. HEWs must complete a one year course of instruction and field training that is provided by the Ministry of Education. They are trained to manage operations of health posts, conduct home visits and outreach services to promote preventive health actions, refer cases to health centers and follow up on referrals, identify, train and collaborate with voluntary community health workers, and provide reports to district health offices (Bilal et al, 2011). Once HEWs have been trained they are assigned in pairs to kebeles as salaried government employees. HEWs spend 75% of their time visiting...
families in their households and performing outreach activities; the remaining 25% of their time is spent providing services such as immunizations, first aid, safe and clean deliveries and diagnosis and treatment of malaria, diarrhea and intestinal parasites at the health posts (Bilal et al, 2011).

Despite little progress in such areas as postnatal care and assisted delivery coverage (Bilala et al, 2011), access to primary health care has increased significantly overall since implementation of the HEP: vaccination coverage and maternal health services coverage have both improved: significant efforts have also been made in expanding the coverage of key malaria interventions. Several factors can explain this success, including the strong political commitment of the government, the participatory nature of the program and associated community ownership, the effective intersectoral collaboration with the Ministry of Education which provided technical and vocational educational training (TVET) for HEWs and the progressive increase in domestic resource allocation for implementation (Bilal et al, 2011). Remaining weaknesses include low capacity of district health offices to provide supervision, monitoring and evaluation; insufficient HEW skills, especially related to maternal and newborn care; and wide geographic disparities (UNICEF 2012). Initially this supervision constraint was due to insufficient accountability and supervision by the woreda offices. This has since been corrected through a system in which one five health posts are accountable to, supervised by and supplied by one health centre as the primary health care unit that is accountable for their performance.

The amount of time and outreach required for HEWs to implement all 16 packages is also a concern. To help with sensitization, mobilization, monitoring and surveillance and as part of their outreach activities, HEWs are expected to train volunteers from “model households” in the recently developed Health Development Army (HDA). In the HDA, the mother from one model family mobilizes others from five households to adopt and share best health practices. This HDA structure aims to empower women and improve community ownership through the participation of the volunteers. Interviewed HDA members agreed that this structure enabled effective communication, mobilization and collaborative decision-making while the HEWs liked how easy it makes disseminating information without time-consuming house visits and how effective it makes surveillance and follow-up on use and defaulting. One concern was that effective NDA leaders need to be effective discussion leaders but also need content training on danger signs, good health practices and other aspects of counseling families. Although many areas lack sufficient trained volunteers to support the HEWs effectively, the development of them and the HDA will enable the capacities of the HEWs and overall community-based system to evolve. Three million HDA volunteers had started work in 2012 (UNICEF, 2014). Because their establishment and progress requires institutional support, they are operating more favorably in non-DRS regions except in pastoralist parts of Oromiya.
Interviewed HEWs and HDA members in Arsi Negele in Oromia Region discussed how important the linkage of HDA with a process called Community Conversations was to strengthening resilience and enabling adaptability of health and nutrition care. Community Conversations are a process in which leaders of the different development armies and sector committees get together to discuss issues of relevance to everyone. Since 2011, Community Conversations (CC) have been expanded to include Maternal, Newborn and Child Health issues. Before the HDA, monthly CC meetings were not perceived as helpful as they are now that HDA members are able to meet regularly in their 1:5 HDA groups to discuss issues that arise. Often these issues are discussed with the HEWs who help to clarify confusion. For bigger concerns, this information gets shared by the leaders of the groups as representatives to the Community Conversations meetings and then back to the households along with any new insights or decisions that have been made. In this manner, every household feels empowered to participate as part of the discussion and decision-making about health and nutrition issues. And, since these mothers are discussing emerging issues and unanticipated problems that arise, this process of households discussing in the HDA group and leaders taking the discussion up to the Community Conversations and back down to the group helps them to identify significant concerns early and quickly decide how to adapt to address them. Overall, the HDA system was similarly perceived to strengthen members’ resilience through enhanced participatory decision-making and knowledge and ability to adapt because those involved are better informed and feel that they can make both collective and individual decisions better about important health issues such as how to prevent acute watery diarrhea when a case is identified.
**HEW EVOLUTION**

Nutrition services in Ethiopia have traditionally followed a strategy of reacting to emergencies. Interventions were generally short-term, dependent on humanitarian funding and provided by the international community only during acute food insecurity and seasonal hunger crises. Many health services were also provided in a reactive curative approach either through such emergency interventions or through health centres (HCs) and hospitals that were often too removed from communities both literally and figuratively to be responsive to their needs. HEP aims to enable more adaptive service delivery by enabling a transition from such externally-driven emergency and distant curative approaches to a community-based development approach of local diagnosis, treatment and referral that optimally addresses the communities’ needs and can adapt to crises.

The HEP is adaptive by definition: it was designed to be able to dynamically add new elements and drop or modify others as capacities and conditions change. How the system can progress in this transition depends on the location-specific evolution of HEWs and HDA members through different approaches to manage these responsibilities. As shown in the HEW Evolution Diagram, some generalizations can be made about the steps in this progression. The first transition occurs when HEWs are first deployed. The focus in the resulting initial HEW phase is on adopting a proactive preventive rather than reactive curative paradigm by using HEWs to do sensitization, mobilization, monitoring and referrals to the health centre for any curative needs. The second transition occurs when the knowledge and skills of HEWs have expanded enough that they can begin to organize, train and involve the community through an active HDA system responsible for more of this sensitization, mobilization and monitoring and the HEWs can initially expand into other coordination and curative roles. The amount of time to reach this transition depends on local conditions and achievement, so some areas in Ethiopia have already achieved this transition while others have yet to do so. The final transition is to an optimal state of complete local responsibility for surveillance, diagnosis, and either treatment or referral as appropriate, with no more woreda supervision, and in which HEWs and their HDAs have reached a point of optimally adapting roles and capacity based on conditions that arise.

**NUTRITION Feeding Services**

**Transition 1 = Emergency Relief BSF to PSNP & Health Centre CMAM**

Wider scale treatment of Severe Acute Malnutrition (SAM) began after the 2002/2003 drought affected a large portion of the population. Prior to the resulting paradigm change, reacting to emergencies was limited to Blanket Supplementary Feeding programmes of relief food by international agencies funded by humanitarian donors. In Ethiopia, the decision to abandon this approach involved the implementation of both the Productive Safety Net Program (PSNP) and the HEP. The roles of PSNP in providing food, cash and assets to targeted chronically food insecure beneficiaries is described in the Social Protection Sector chapter. As shown on the representative bar graph on the HEW Evolution Diagram, such proactive targeted feeding replaces much of the reactive blanket relief food aid in this initial phase. Line graphs from data for the non-DRS regions on one graph and for Somali and Afar on another help to show the actual trends and status with respect to such replacement.

Additionally, the onset of HEP allowed for initial strides in Community Management of Acute Malnutrition to replace some of the need for relief food. Reactive opening and closing of SAM management programmes based on such factors as seasonal peaks and valley in SAM rates resulted in delayed short-term funding that was late in addressing needs and insufficient to help build health system capacity. After such problems during the 2002/03 drought, a new CMAM system was developed in which SAM management would be development-oriented but in a manner that could quickly respond to droughts. Children identified in the newly developed proactive EOS screening for acute childhood malnutrition were linked appropriately to therapeutic or supplementary feeding1. Health centres took responsibility for providing outpatient therapeutic programme (OTP) feeding from humanitarian partners who then focused on training and support.

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1 The development and use of EOS is described in the next section.
**Transition 2 = Introduce CBN and ICCM OTP at HP**

After documented success of health centre based OTP services before and during the nutrition emergency from the food price hike in 2008, the MoH decided to rapidly scale up CMAM by further decentralizing OTP to HPs and by training HEWs in the case management of SAM (UNICEF 2012). This coincided with implementation of the Integrated Community Case Management of Common Childhood Illnesses (ICCM) approach to reducing under five mortality rates. As a continuing part of the evolution of the role of families, the HDA and HEWs, ICCM’s objectives are to:

1. Build the skills of HEWs at health posts and health professionals at health centres to correctly assess, classify and manage common childhood illnesses.

2. Build the skills of HEW supervisors and WHT members to mentor, supervise and coach HEWs on management of sick children.

3. Support regular and continuous follow-up, progress reviews, refresher training and supportive supervision to ensure quality service for sick children per the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines.

4. Ensure uninterrupted supply of essential drugs and supplies for community case management at health posts.

5. Engage volunteers in active surveillance of cases and referral for treatment in community case management and.

6. Establish a mechanism or regular and continuous ICCM monitoring and evaluation.

Moving responsibility for management of SAM to the health posts achieved significant success in improving access to severely malnourished children by allowing it...
Figure 14: Feeding Services in Amhara, Oromia, SNNPR and Tigray Regions

- Number of children beneficiaries from relief food (children under the age of 5/15% of the population)
- Number of children beneficiaries from PSNP (Food and Cash) (children under the age of 5/15% of the population)
- Monthly SAM treatment capacity (number of children under five that can be treated if each site can treat up to 20 children per month)
- Number of TSF beneficiaries (children under five)
- Number of children under the age of two participating in monthly growth and promotion sessions
Figure 15: Feeding Services in Afar and Somalia Regions

- **Number of children beneficiaries from relief food (children under the age of 5/15% of the population)**
- **Number of children beneficiaries from PSNP (Food and Cash) (children under the age of 5/15% of the population)**
- **Monthly SAM treatment capacity (number of children under five that can be treated if each site can treat up to 20 children per month)**
- **Number of TSF beneficiaries (children under five)**
- **Number of children under the age of two participating in monthly growth and promotion sessions**
to cover a wider area and to be more responsive to local needs. Additionally, it allows CMAM to be adaptably scaled up in times of drought. This has been argued as a significant factor in avoiding a nutrition crisis during the 2011 Horn of Africa food crisis (UNICEF, 2014). How much childhood SAM treatment was needed as part of routine HEW and volunteer activities in many areas depended on the extent of the severity of poor harvest and overall area food insecurity rather than capacity for treatment or delays in waiting for relief food. CMAM also allowed quicker and more representative national nutrition surveillance information since, rather than waiting for nutrition surveys based in a few areas to be conducted, data on the severity of the nutrition situation was able to be monitored for over 12,000 health posts in over 600 districts through surveillance of monthly CMAM admission rates. Data such as a cure rate of 85.7% in 2012, a mortality rate of only 0.6% for admissions from 2008-2013 and a default rate of only 3.9% indicate that health posts managing CMAM have:

1. Identified and referred sick children who showed signs of requiring higher-level care
2. Detected cases in early stages when managing severe malnourishment was relatively easy, thereby reducing complicated case referrals and risk of death
3. Reduced opportunity costs for caregivers
4. Instilled community confidence in the programme

As shown on the map, in figure 17 with only Afar, Somali and Gambella yet to have all health posts covered by ICCM, almost 90% of the health posts in the country have such coverage. For those that remain, doing so requires HEWs that have achieved a level of comfort and competence in their other roles for such expansion and ability to rely on the HDA for the surveillance and referral role and for filling much of the HEW’s previous preventive sensitization role so that the HEW can focus on expanding into such curative roles. Those who do begin ICCM can more directly influence SAM through responsibility for OTP locally.

The introduction of Community Based Nutrition is also possible with an expanded role of HDA volunteers. The NNP recognizes that, beyond feeding programme efforts to enable survival, families and communities should be engaged in addressing the 80% of malnutrition that is chronic and may be causing irreversible consequences on children’s health must be addressed. CBN does so by utilizing volunteers to counsel pregnant and lactating women and families with young children in the essential nutrition actions; weigh and monitor or promote growth of children under two years of age; and provide vitamin A supplementation and mid-upper arm circumference screening for children 6–59 months and deworming for children 24–59 months of age. It seems very cost-effective since the cost is very low at US$0.83 per beneficiary but underweight prevalence has shown a consistent decline that may be attributable to CBN since inception in 2008 in the 365 woredas in which CBN is active2. Although they play an important role in maintaining community health during emergency periods, programs distributing food have much higher costs per beneficiary because the costs of the product and its transport to and through the country are high (Rajkumar et al, 2012). Solutions such as CBN with a strong community volunteer focus should help to avoid such expensive alternatives.

With increased local CMAM capacity, with some PSNP participants expected to graduate into regular food security and with initial inroads into reduction of the number of childhood malnutrition cases through CBN, the level of relief food aid recipients should drop further during this phase.

**Transition 3 = Full Capacity CMAM & CBN (‘aid by exception’)**

The optimal full capacity state involves most people having graduated from PSNP as food secure, CBN having reduced malnutrition significantly and health post based CMAM enabling early detection and cure of severe malnutrition cases. In this scenario, people would be healthier and more resilient because of all of these achievements, CBN could adapt to provide new assistance based on determined community needs, CMAM could enable adapting through quick information and its ability to scale up in emergencies and PSNPs contingency fund and risk financing mechanism would help to ensure that transitory

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2 98 more woredas began CBN activities in 2013.
food insecurity would be quickly addressed through mechanisms that encourage a return to food security. In such a scenario, some PSNP assistance would still be needed for the included vulnerable households that remain. Relief, however, should only be needed as an exception by the most vulnerable. Transition to this state requires development of full capacity of the HEW and HDA system to run and adapt CBN and CMAM according to what conditions demand.

Vitamin A Supplementation (VAS), Deworming and Nutritional Screening for Children and Pregnant and Lactating Women

Transition 1 = Ad Hoc Emergency Campaigns to EOS
The Enhanced Outreach Strategy (EOS) began in 2004 as a way to reduce the need for annual emergency nutrition services in chronically food insecure woredas. It promotes preventive community and household
health care to reduce morbidity and mortality among children less than five years of age and among pregnant and lactating women. In mass mobilizations conducted twice per year in all target woredas, it provides: VAS to children between six months and five years of age; deworming for children between two and five years of age; screening and referral of malnourished children and pregnant and lactating women to the TSFP or to a therapeutic feeding center; catch-up measles vaccination of children 9–23 months of age; distribution of insecticide-treated bed nets in selected malaria-exposed kebeles; iodine capsules to children and pregnant and lactating women with iodine deficiencies in some woredas; sensitization on proper infant and young children feeding, hand washing, HIV/AIDS prevention and constructing, using and maintaining latrines. Although EOS is a transitional program to move from crisis mode to development mode, results show that vitamin A and deworming is effectively reaching more than 90% of its target population and that vitamin A and measles campaigns are among the cheapest ways to save large numbers of lives with benefits estimated to be worth about four times their costs (Rajkumar at al, 2012).

Because of such success, the HSDP IV and 2008 NNP planned shifting from EOS to routine HEP services as a way to reach mothers and children through strengthened health posts, HEWs and community volunteer HDAs and other community organizations (FDRE MoH, 2013; UNICEF, 2012). Such a shift from the EOS campaign mode that is managed by the WHTs to routine unsupervised delivery is a big step. In order to enable it, HEWs must demonstrate that they can handle their other workload in addition to coordinating such activities, that they can perform such activities well and that their relationship with community members and an established, trained and active volunteer HDA group will enable it to be run successfully.

Transition 2 = WHT-run EOS campaigns to Locally Run CHDs
An intermediate step called Community Health Days (CHD) involves HEWs who have demonstrated sufficient competence locally organizing and managing campaigns at the health post four times per year under the supervision of the Woreda Health Team (WHT). As any active HDAs are responsible for mobilizing people to participate in these campaigns, it also enables them time to develop the skills that will enable effective routine services. Currently, EOS has shifted from EOS to CHDs in all woredas of Amhara, Oromia, Tigray and SNNPR (FDRE MoH, 2013).

Transition 3 = CHDs to routine HEP services
Once HEWs and the HDA have demonstrated capacity in these CHDs to manage these activities without supervision, they are deemed ready for performing them as part of their routine daily work at the health post and through home visits. CHDs have shifted to routine HEP work in 31 woredas of Amhara, Oromia, Tigray and SNNPR and in all woredas of the urban regions of Addis Ababa, Harari and Dire Dawa. The map in Figure 17 shows the distribution of these transitions. All woredas in Tigray and 70 woredas in Amhara, Oromia and SNNPR are planned to shift in 2013/2014. Among the recommendations of the new NNP is overcoming lack of regional commitment to this transition process and lack of community mobilization through the HDA. As this shift progresses, HEWs and the community undertake more responsibility for understanding and adapting to the causes and effects of their problems.

HEALTH, MATERNAL, NEWBORN AND CHILD HEALTH SERVICES

Transition 1 = From HC Curative To HEW Preventative and Promotive
In the initial phase with no health post capacity, volunteer community health workers (CHWs) were only responsible for encouraging people to travel to the health centre for curative services. The suggestion by the HSDP II Mid-Term Review that promotive and preventive services would be helpful for such problems as malaria and diarrhea contributed to development of the HEP 16 packages for HEW promotive and preventive activities. HEWs initially focused on doing sensitization using The Family Health Guide (FHG) that was developed as a communication tool for such activities. Although they were also given limited curative skills for such needs as first aid, malaria and diarrhea, their focus was on sensitization to prevent these problems.
Transition 2 = From HEW Preventative & HC Curative to HEW Curative & HDA Preventative
With more experience and skill, the HEWs transition to the next level of responsibility. Training as Level III HEWs includes six days of training on the ICCM skills described above. With continuing 1:5 health center to health post accountability, supervision and guidance for good practices, HEWs graduate to a full kit for implementing the 16 packages. This includes HIV testing and referral, infection referral, immunizations screening and reminders, follow-up on TB treatment, referral of newborn serious illnesses and promoting good breastfeeding and young child feeding. In addition to 1:1 diagnosis and treatment for malaria and diarrhea, they are responsible for giving oral antibiotics for pneumonia. And with their new responsibility of training HDAs, the HDAs take on much of the role of preventive and promotive sensitization while the HEWs focus on coordination and on their limited curative activities.

Transition 3 = from 1:1 supervised preventative and curative to self-supervised ‘demand-driven capacity needs’
With fully developed HEW and HDA capacity, a system can be developed for optimal surveillance, diagnosis, treatment and referral. Sensitization and trust leads to sufficient community demand for more curative
services. In response, in addition to the two Level III preventive HEWs, the health post is assigned a Level IV HEW to supervise and manage the health post with accountability directly on-site. This Level IV can do more curative services, deliveries, community-based newborn care and sepsis antibiotic injections for infections of babies less than 2 months old. With such management and coordination capacity, the three HEWs and their HDAs are now in a position to monitor changes in conditions and needs so that they can proactively adapt by building the capacities for new and anticipated needs.

Deliveries

**Transition 1 = Initial sensitization about clean deliveries**

Prior to the HEP, roughly all births were done at home by such people as traditional birth attendants and grandmothers. In the promotive and preventive HEW phase, sensitization discourages traditional birth attendant births and emphasizes the need to go to the health centre to give birth or to get home delivery done by someone with clean home delivery training. To encourage people to go to the health centre, functioning ambulances and locally made stretchers are made available based on the level of demand. Some HEWs have clean home delivery training but very few have such training and those who do face difficulties with such problems as insufficient running water. Overall, as shown in the representative bar graph, a very small percentage are convinced to deliver at the health center and a negligible amount do ‘clean home delivery’ with the help of the HEW at the health post or at the home.

**Transition 2 = low clean delivery capacity to higher clean delivery capacity**

Demand increases somewhat for health centre deliveries because of the sensitization and the availability of ambulances which continue to become more available as their use increases. The capacity for clean deliveries by the HEWs at the health post or the person’s home increases but demand does not increase much. The sensitization message is that traditional home births are unsafe and that health centres should be used for delivery if possible. Clean delivery by trained personnel at the health post or home is only recommended if the health centre is not an option.

**Transition 3 = traditional home births eliminated**

In the ideal scenario, through repeated sensitization toward behaviour change, reliability of ambulances and lower mortality rates, traditional home births are no longer practiced. Despite availability of a Level IV HEW at the health post who is trained as a skilled midwife, people continue to be encouraged to go to the health centre for delivery if possible since it is safer and they can be referred to the hospital if there are complications. Since many people live in remote areas or otherwise have reasons why they can’t get to the health centre, health post and clean home deliveries increase to accommodate these needs.

These four categories are not exhaustive but provide insights into how the HEP system promotes adaptive service delivery and is adaptive itself by design. Overall, this evolution process is a long-term investment in providing locally based nutrition and health services that can adapt to provide services in drought conditions and can also adapt capacity over time based on identified local needs. Although measuring preparedness and efficiency of the new local nutrition and health services in this approach is difficult, synergies from providing these services locally should be evident in areas in which capacity can be developed to meet local needs effectively (De Goyet et al, 2012). In areas with issues related to extreme dryness, remoteness, and lack of capacity and infrastructure, different arrangements and innovations are needed to both provide services and encourage this evolution.

CASE STUDY: ADAPTABILITY THROUGH iMHNTs IN THE EVOLUTION TOWARD pHEWs IN SOMALI REGION

Indicators reveal the limited extent of health service coverage in Somali Region: 2008 immunization coverage for Pentavalent3 at 28.2%, for measles at 31.1% and for polio at 28.5%. GAM is near 20%. Malaria, TB, diarrheal diseases and malnutrition are the leading causes of morbidity and mortality. Causes for such poor statistics

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3 Interviews on location in the remote areas of Somali Region where MHNTs operate were not possible because of inability to get security clearance to visit them and time constraints. This limited case study is based on input from documentation, from discussions with UNIEF staff in Jijiga, and from a key informant who was in Jijiga and has served as a focal point for MHNTs for the past ten years.
include recurrent drought, flood, disease epidemic and conflict-related emergencies. Extreme weakness of basic services is due to problems of availability due to weak infrastructure and systems and to problems of access due to long distances, security and quality of care.

The HEP in Somali Region is also of limited capacity. The pastoralist HEW (pHEW) program has not yet developed solutions for the remote areas, difficult conditions and lack of capacity of potential pHEWs. Small scale mobile health and nutrition clinics first started operating in Somali Region in 2004 in response to negative impacts on the health and nutritional status of children and women in an emergency. As a complement to the HEP, they were relaunched in 2007 in response to worsening health and nutrition conditions with standardized staff member training focusing on:

- High impact child survival interventions
- Treatment of the main causes of child morbidity and mortality
- Treatment of SAM
- Iron/folic acid supplementation and provision of clean delivery kits for maternal health as much as possible
- Promotion of hygiene practices and related wash items

At the end of 2013, 34 Mobile Health and Nutrition Teams (MHNT) were operating in various parts of the region. 24 are operated through staffing by the Somali Regional Health Bureau and funding through UNICEF support. The ten others are run by NGOs including MERLIN, Mercy Corps, Save the Children-UK and OWDA. These ten NGO supported teams primarily provide nutrition and OTP services, specifically supplying RUTF to children suffering from SAM.

Each MHNT team generally consists of two nurses, one midwife, two HEWs, one driver, and one focal point for communication. Supplies are stored in the team base, usually in the woreda capital. A team coordinator provides overall management and supervision and collects data using a number of monitoring tools, including a monthly reporting form. This monitoring system records the numbers of patients and treatments/medicines provided by every team on a monthly basis. Data are used to assess the quantity and quality of health, nutrition and WASH services provided and the number of people benefiting. They are used for improved planning and implementation. Data are shared during a quarterly review meeting held in Jijiga. In 2008, 31% of all consultations in Somali were provided by mobile teams, all in the most rural and remote communities. Based on the consultations provided per team from January to March 2009, the 28 mobile teams that operated then were expected to have provided over 800,000 consultations per year. The MHNTs visit target identified areas of need once per week and inform the community of the visit through social mobilisers.

Specific objectives of the RHB mobile teams supported by UNICEF:

- Health care made accessible to 1.57 million people in 25 of the 53 woredas of Somali Region
- Diagnosis and treatment focusing on main causes of child morbidity and mortality at 168 mobile team sites in these 25 woredas
- Screening for malnutrition provided for all under five children and Out-patient Therapeutic Management provided for severe cases. Vitamin A supplementation and de-worming provided every 6 months
- Capacities of newly deployed health extension workers built through mentoring by the mobile team staff by
  » Providing on-the-job training, experience and skills to pHEWs to improve their performance of services at new health posts to which they are eventually deployed by joining mobile teams to assist with provision of WASH, health and nutrition services
  » Assisting with the distribution of supplies to health posts, including equipping and replenishment of consumables
  » Providing supervisory support on behalf of the RHB and woreda offices to pHEWs, and identify bottlenecks and provide solutions to strengthening pHEP
Supporting the woredas and RHB in improving monitoring systems of pHEP to help with improving overall performance of health and nutrition service provision at new health posts.

Many of these remote areas which they serve will have no pHEWs who can be trained to continue the services if they stop operating. But the government has said that it has continued as an emergency initiative for too long. Those in favor of maintaining the MHNTs believe that MHNTs are more cost-effective for the quality and area of service provided than fixed facilities would be in trying to provide such services in all of the areas that they cover. But they also realize that handover to the government must be done before donor fatigue stops the program entirely and that doing so will require innovation to either make it less costly or to be run as a development program. This desire for innovation led to piloting integrated MHNTs (iMHNTs) in 2011.

While the regular ‘emergency MHNTs’ must go to six places per week that have no health center, have a high population, and lack basic services, iMHNTs go instead to a fixed health facility and become integrated into its work. They increase staff capacity, bring needed drugs and supplies and do supervision and monitoring of the facility. During six days at each site that they visit, they spend three spend three days on these activities at the facility and three doing mobile health and nutrition activities like MNHTs in remote areas. Additional help provided includes deliveries and referrals to hospitals, help with logistics for campaigns such as EOS and health education to community members when they are working in remote locations. In areas in which the capacity of HEWs is so low, one of their most important contributions is helping to train HEWs to perform well.

In addition to such ‘normal time’ activities, both types of MHNT provide valuable services for early warning and extreme events. In many of these areas where getting information is very difficult, the MHNTs can verify information about any type of problems quickly. Each MHNT has a corresponding village health focal point who serves as an early warning focal point by letting the MHNT know if any changes in the past week might indicate a problem. Once a problem is verified, the MHNT tells the woreda or region what support is needed. The health surveillance that they do also can serve as early warning of any outbreaks. If such an outbreak is identified, the MHNT can help with preparedness by providing medication to manage the problem or can report to the woreda or region to get quick assistance.

When a drought event is declared, MHNTs can move to the area as surge capacity to help address it. They are stationed in hotspot areas for hazards and generally get to where they are needed within 72 hours. If the problem is beyond their capacity, they can call on another MHNT nearby as additional surge capacity. In this way, iMHNTs and MHNTs can be in many places at once because RHBs can move different ones to different places based on anticipated or realized need.

Adaptability impacts include the iMHNT’s ability to replenish supplies, vaccines, fuel and spare parts to the facilities into which they’re integrated. As these facilities had difficulty getting such necessities before, this helps to minimize service disruptions.

Undisrupted service is also enhanced by the ability for mobile teams to move to affected areas as surge capacity during extreme events. The nature of being mobile and able to access the remote areas to provide training, supervision and supplies makes them context appropriate. Additionally, there is also a coordination board that ensures that the MHNT that is deployed for an extreme event can respond in manner that is context-appropriate to the needs and capacities of the affected facility’s area. Training and advice includes helping facilities to be prepared for water purification and with AWD medication for early action needs.

This enhancement of knowledge/ability to adapt strengthens the resilience of facilities who are so trained. The innovation of integrating the MHNTs within the health facilities for half of their work is a balance between sustainability by providing more development benefits and equitability by continuing to provide needed services and flexibility to people in remote areas.
KEY MESSAGES:

- Integrating with a health facility to provide training and needed support helps to build the capacity of the facilities and pHEWs while continuing to provide needed information, early warning, and assistance for remote areas equitably.

- The mobility of the iMHNTs helps them to provide needed services as surge capacity in affected areas during extreme events and makes them suited to the remote areas in which they operate.

- MHNTs are expensive, but until the pHEW program evolves to be able to fill the gaps that would be left in the MHNTs’ absence, innovations like the iMHNT to both provide services and develop such evolution capacity should be explored.

LESSONS LEARNED & RECOMMENDATIONS

Lessons Learned

- The National Nutrition Strategy and Policy and the Health Policy are well-aligned with the HEP.

- The HEP is a long-term plan of sustained investment over the evolution of the development of local capacity for health care and nutrition services. Such a system is inherently adaptive both in the nature of the system adapting to conditions and capacities and in how it enables service provision to adapt better through decision-making and action that is closer to the problems.

- Integrating CMAM into a national health system can enable reaching many children with quality treatment, can be paired with other interventions to combat SAM and underweight issues through synergies in running it in parallel with preventative nutrition actions and can be scaled up to address emergency needs rapidly.

- CMAM helps avoid delays from identifying study areas and undertaking surveys and costs of starting and stopping SAM programmes in chronically affected local areas.

- Multiyear funding can enable CMAM to be a key input into a food and nutrition resilience strategy.

- Replicating CMAM success elsewhere would require the same type of government political will and existing strong community-based health system to tap into and build from.

- To go from a reactive emergency and curative health centre based system to a proactive preventive and curative community health post based system, the first transition requires initial HEW preventive sensitization capacity and the second transition requires a strong volunteer group who can absorb these responsibilities so that the HEWs can undertake more coordination and curative activities.

- On the road toward ‘demand-driven capacity needs’ of the HEP, HEWs must first be supervised in normal tasks, then take responsibility for those tasks and then learn to anticipate what problems might require additional capacities.

- An overarching decision-making mechanism that makes the HDA members feel that their work and decisions are contributing to a greater good can contribute to the resilience of the system and to the quality of their decisions regarding how to adapt.

- Innovation such as iMHNT capacity-building and support is required to determine ways to address what’s lacking in the HEP for remote areas while the pHEW programme is developing and many areas remain isolated and without sufficient capacity.
Recommendations for enabling adaptive health and nutrition services

- Take a long view of the investment and steps needed for capacity building that will enable evolution into an adaptive system. Invest in people to evolve with the system through training along various steps while acknowledging that not all areas will evolve at the same pace or in the same ways.

- HEWs should be accountable to the Health Centre which is in turn responsible for their training and supervision and is accountable for their performance.

- CMAM, CBN, ICCM and other initiatives should be coordinated at the health post level by HEWs when capacity allows because of the benefits to adaptiveness of having problems identified, diagnosed and quickly treated or referred by a local facility.

- Despite the desire for more local capacity in general, encourage deliveries to take place at the level at which safe delivery is more likely and at which referral for complications can happen more easily.

- Tie health-care decision-making of community health and nutrition representatives (such as HDA leaders) to an intersectoral community development decision-making body for more empowering results.

- Innovative solutions should be attempted to find sustainable ways to equitably ensure undisrupted health and nutrition service in remote areas.
THE WASH SECTOR

INTRODUCTION

Lack of access to WASH services has been one of the main causes of water borne diseases, ill health and low school enrollment, particularly among children and specifically girls in rural areas. This has been caused by many factors, including inadequate capacity, absence of strong coordination mechanisms, inadequate cost recovery and remoteness (Chaka et. al., 2011). There is also a great disparity in access to WASH services between rural and urban areas. DHS (2011) data shows that roughly 95% of urban households have access to improved drinking water while only 49% of rural households have such access. The population in rural areas also must travel long distances to access water. According to the NWI (2013), the proportion of the rural population that can access water within a distance of 1.5km is only about 45%. Furthermore, lack of maintenance of existing water supply schemes results in a functionality rate of only 20% (NWI, 2013).

WASH services for Pastoral and Agro-pastoral areas

The pastoral and agro-pastoral areas represent a significant proportion of the population in Somali and Afar regions, Borana zone of Oromia and South Omo zone of SNNPR. In these areas, communities’ livelihoods depend on occasional migration with their livestock. While the development problems of these regions remain significant, lack of reliable water supply for the use of households, livestock, and service facilities is the greatest issue.

Limited government and community capacity, inappropriate technological choices, poor design of water supply structures and inadequate infrastructure are often described as the major constraints to water supply delivery (Gotinga, 2011). In addition to rivers, ponds, and birkats, there are over 450 drilled water wells that serve as the principal sources of water supply in most of these areas. Many of these water wells have been abandoned either because they are dry or because the water is saline (JAP, 2012). The cost of drilling for water in the region ranges from USD 20,000 to 150,000 depending on the depth (JAP, 2012). And, with some communities living as far as 120km from the nearest water point in Somali region, distance also limits communities’ access to reliable water supply.

The lack of government and community capacity has resulted in inadequate maintenance of existing water wells. In times of extreme drought, the chosen solution has often been water trucking. With costs as high as USD350 per truck and other problems that have arisen due to its prevalence, such water trucking has been assessed to be an unsustainable strategy (JAP, 2012). Accordingly, the Joint Action Plan for water supply (JAP) was implemented to harmonize and coordinate the efforts of government and non-government agencies to reduce water trucking in Somali and Afar regions. As described in the policy and approach sections below, this JAP will be aligned with the WASH Implementation Framework (WIF) in an integrated approach to water supply, sanitation and hygiene during its implementation.

WASH Policy

Policies, strategies, plans and institutional arrangements have been implemented in an attempt to achieve Millennium Development Goals (MDGs) of increased access to improved drinking water and adequate coverage of sanitation facilities. Ethiopia’s 1999 Water Management Policy has provided the basis for adaptable WASH service delivery by outlining a framework for the implementation of integrated community based water supply, sanitation and hygiene systems. It also establishes a user contribution cost recovery system
for the operation and maintenance of water supplies to ensure sustainability. Furthermore, the policy provides foundations for water quality management that could help reduce water borne related diseases.

The policy has a separate section for water supply and sanitation with the overall objective of enhancing well-being and productivity through the provision of adequate, reliable and clean water supply and sanitation services that meet livestock, household, service facilities and other water users’ demands. The policy promotes equitability and sustainability by encouraging participatory community ownership, management and maintenance of the water supply systems in established and strengthened local-level water users associations (WUAs). Institutional capacity building is encouraged through the development of human resources and the strengthening of water resources institutions through structural reforms and provision of equipment, vehicles, and materials that are meant to improve the quality of decision making, technical ability, efficiency, and managerial performance of all stakeholders at federal, regional, and local levels. A framework encourages technical capacity building in areas such as water source investigation; water facility design, engineering, construction, operation and maintenance; and water quality control. Specific to water-related disaster events, it recognizes the need for disaster prevention and public safety through the management of such disasters, the promotion of coordinated action to combat desertification and the establishment of preparedness and contingency plans for disasters and emergencies.

The Water Management policy was made operational through the Water Sector Strategy (WSS) (2000) and the Water Sector Development Program (WSDP) (2002-2016). The WSS focuses on the same elements as the policy but specifically addresses them in a strategic manner. A peculiar feature of the WSS is that it makes provisions for preventing disasters and ensuring public safety by stating the need for coordinated efforts to combat desertification and to prevent flood-related disasters through such methods as forecasting, flood plain zoning and flood protection assessment and implementation.

The National Hygiene and Sanitation Strategy was developed to complement the existing Health Policy and the National Water Strategy by placing greater emphasis on on-site hygiene and sanitation. Linked with the Plan for Accelerated Sustainable Development to Eradicate Poverty (2006-2010), the Water and Sanitation Universal Access Plan (UAP) was formulated in 2005 with targets to achieve full access to water supply and sanitation by 2012. The plan includes the ambitious targets of: i) universal access to improved water supply and sanitation in urban areas, ii) universal access for the rural population to sanitation and iii) access to improved water supply for 98% of the rural population. Accordingly, the WSDP sets targets for WSSP components and the required capacity building needs.

Through such policies, strategies and plans, steady progress has been made toward achieving the MDG target of halving the proportion of people without safe drinking water and basic sanitation by 2015. Both the DHS data and the Ethiopian National WASH Inventory Statistics (NWI) show that more than 50% of the country’s population has access to improved water supply. According to DHS (2011) the proportion of the population using improved sources of drinking water has increased from 35% to 54% between 2005 and 2011. On the other hand, the national average for private latrine use in Ethiopia is about 9%, with only 14% of the urban population and 7% of the rural population having access to such services (DHS, 2011). Schools and health institutions appear to have lower levels of access to WASH services with only 31% of schools and 32% of health institutions having access to water supply (NWI, 2012). While 81% of the schools and 85% of the health institutions reported to have basic latrine facilities, schools with improved latrines were only 33% (NWI, 2013).

Although the aforementioned strategies and plans have been in place for some time, lack of effective coordination and integration of the UAP and the National Sanitation and Hygiene Strategy highlighted the need for a new framework and institutional arrangement. Accordingly, in 2011, the WASH Implementation Framework (WIF) was prepared to achieve the Growth and Transformation Plan (GTP) targets of achieving 98.5% water supply and 84% improved sanitation access by the end of 2015. In order to achieve these targets, the framework recognizes the need for strong linkages, integration and
coordination among governmental agencies, donors, civil society organizations and the private sector to provide safe water, improved sanitation and hygiene. Per this Framework, the major feature of the National WASH Program (WASH GTP/UAP) is that it has the leadership of four government Ministries that are pledged, through a Memorandum of Understanding, to support an integrated WASH program that addresses the needs of individuals, communities, schools and health institutions more holistically. The framework also allows for context specific WASH service provision through different institutional arrangements for urban, rural and pastoral areas. Finally, the Framework recognizes the need for decentralized decision-making and empowerment of local communities as effective ways of achieving the targets.

**WASH Investment**

To accomplish the above-stated plans, substantial financial and investment was made by the government and development partners. While official figures are difficult to obtain, a detailed estimate of investment and financial flows in the Ethiopian water sector was carried out by the World Bank’s Water and Sanitation Program (WSP) for the financial year 2001-02. It estimated total sector investment was US$39 million or less than half a dollar per capita. The government estimated that the actual investment needs are about US$297 million per year for the period 2006-2015.

**WASH Implementation Approach**

WASH services delivery follows the country’s federal structure. The national Ministry of Water and Energy (MoWE) is responsible for the formulation and follow-up of national water policy, strategy, action plans, and various regulatory functions such as the establishment of national standards pertaining to water quality, water infrastructure and technical support to regional Water Bureaus. Each regional Bureau of Water Resource Development (BOWRD) is responsible for adapting federal policies, strategies and action plans to the specific conditions of the region, corresponding implementation, regulatory duties delegated by MoWR and the study and design of big water supply schemes. Zonal Water Resources Development Offices (WRDO) coordinate activities, consolidate plans and reports and provide technical support to Weredass Water Supply Offices. They also provide such technical support to town Water Supply Offices that have established municipalities. The Weredass Water Supply Offices provide such support to town Water Supply Offices with no such established municipalities. They are supported by Weredass Water Resources Development Desks for the investigation, design and implementation of small-scale water supply schemes and integrated Woredas WASH Teams (WWT) consisting of representatives of sector offices of health, education, women, and agriculture, Figure 18.

The need for structures such as WWTs to better integrate water supply, sanitation and health activities at different levels and between different sectoral offices was recognized in a 2005 Memorandum of Understanding (MoU). This MoU between the ministries for water resources, health and education outlines an integrated implementation modality. A Federal Steering Committee consisting of state or vice minister representatives from the three line ministries serves as its governing body. A National Technical Committee comprising heads of respective departments from the three ministries is responsible for strategic direction, soliciting of funds, resource allocation, quality assurance, standards and monitoring and evaluation. The National WASH Coordination Office, with full time experts from the three ministries and MOFED, functions as a secretariat and is housed within MoWE. At the regional level, WASH structures with similar constituencies and functions have been established. At the woreda level, the Woredas Cabinet represents the Woredas Steering Committee and Town Steering Committee, and provides support to the Weredass Water Team and Town Water Boards.

The need for the harmonization of the Universal Water Access Plan (UAP) and the National Hygiene and Sanitation Strategic Action Plan led to the development of the WIF in 2011. The WIF sets institutional arrangements for WASH delivery at various levels according to the decentralized federal system. The national level WASH structures consist of the National WASH Steering Committee (NWSC), the National WASH Technical Team (NWTT), the National WASH Program Management Units (WMUs) and the National WASH Coordination Office (NWCO).
The Framework provides the regions with the authority and the responsibility to establish their own institutional arrangements at regional, zonal and Woredas levels that correspond to national level structures and best meet their particular needs and conditions.

The WIF requires every Woredas to establish a WWT that is accountable to the Weredass Council through the Woredas Cabinet for preparing and managing a Woredas WASH Program that integrates and coordinates the inputs of other sectors and partners toward achievement of integrated WASH targets. At the kebele level, corresponding Kebele WASH Teams (KWT) are under the direction of the Kebele Manager. At the village level, household clusters, health posts, schools, religious facilities and other public institutions using the same water point establish WASH committees (WASHcos) to achieve these targets. The following two case studies provide examples of how these WASHcos and related institutions designed to achieve the local-level integrated WASH services proposed in these policies, frameworks and approaches can be made adaptable for drought-related conditions. The first highlights efforts in studied areas in SNNPR toward enabling WASHcos individually and in groups to be trained and coordinated effectively. The second emphasizes the need for additional mechanisms such as alternative water supply sources and capacity building and coordination strategies in areas with problems associated with severe droughts, remoteness and lack of local management capacity such as studied areas in Somali Region.

**CASE STUDY: TRAINING AND COORDINATION FOR WASHCOS IN WASH FEDERATIONS IN SNNPR**

The WASHcos in SNNPR were established for the operation, maintenance and management of water supply schemes that could ensure continuous water supply to communities in the region. After legal recognition of WASHcos was implemented in Oromia, legalization though higher level structures has been prioritized in SNNPR to improve WASHcos’ mandate, authority, accountability and overall effectiveness and efficiency in water distribution. In this spirit, some groups of WASHcos operating in the same locality were recently organized to form WASH Federations. Administratively, federations of WASHcos in the same Weredass are accountable to the Weredass water desk. The Woredas WASH Team (WWT) provides technical support and capacity building to the federations and underlying committees.

**HOLISTIC LINKAGES**

**Normal Times**

During normal times, the WASHcos manage water distribution, collect water tariffs, encourage hygienic use of the borehole and undertake minor maintenance and repairs to the water supply schemes. Accordingly, the WTTs train WASHcos on scheme management, financial management and borehole hygiene and sanitation. Better scheme management helps them to make better decisions regarding how to allocate water to households, facilities and animals so that it can be distributed to all who need it without breakdowns. Better financial management enables them to collect, save, and use tariffs collected from water users for sustainable cost recovery of such expenses as the water operator’s salary, fuel and spare parts costs, maintenance and borehole management. And borehole hygiene and sanitation training enables WASHcos to provide guidance to the community about how to ensure that contamination doesn’t cause both health and supply disruption problems. WTT training specifically to the WASHco’s operator on maintenance and simple repairs helps to minimize major problems involving disruptions to water supply and repairs by the Regional Water Team. And WTT joint planning training to the WASH Federations enables them to coordinate decisions regarding how to share resources across WASHcos and across sectors so that synergies can be reached in enabling more services to be accessible by more people.

**Early Warning and Early Action**

The WASHcos and operator conduct regular monitoring of water levels. By improving maintenance and simple repair skills, the operator should be better able to identify when there are abnormal problems that might be attributable to a developing drought. Similarly, improved scheme management of the WASHco should enable it to more quickly identify
Figure 18: Recommended and mandatory WASH organizational Structures Per MOU

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<th>LEVEL</th>
<th>GOVERNANCE &amp; GUIDANCE</th>
<th>OVERSIGHT &amp; MANAGEMENT</th>
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<td>Regional</td>
<td>Regional WASH Steering Committee</td>
<td>Regional WASH Technical Team</td>
<td>Regional WASH Management Units (WMUS)/ Focal Point</td>
<td>Regional WASH Coordination Office</td>
</tr>
<tr>
<td>Special zones (Or other Zones Applicable)</td>
<td>Zonal WASH Management Committee</td>
<td>Regional WASH Management Units (WMUS)/ focal point (Water, health, education)</td>
<td>Zonal WASH Coordination Office</td>
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</tr>
<tr>
<td>Woreda</td>
<td>Woreda WASH Steering Committee (Woreda Cabinet)</td>
<td>Woreda WASH Team</td>
<td></td>
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<tr>
<td>Town/City</td>
<td>Town/City WASH Steering Committee (Town Cabinet)</td>
<td>Town/city WASH technical TEAM</td>
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<tr>
<td>Kebele &amp; Community</td>
<td>Kebele Administration (Manager) Kebele Development Committee</td>
<td>Kebele WASH TEAM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MoFED
H W E
BoFED
H W E
WoFED
Other Desks
and communicate issues to the Federation and then to higher administration levels such that about potential shortages so that the WASH cluster can help to more quickly verify with DPPB whether there is cause for drought early action.

For such early action, individual WASHCOs can help to ensure that there is sufficient quality water available at times when the regular source may be depleted by:

- assessing and fixing any problems with existing water schemes that might be preventing access to all available water
- participatory decision-making regarding which users should be prioritized and how to allocate rationing equitably
- distributing water treatment chemicals so that those who begin to use water from potentially unsafe sources can avoid illnesses
- sensitizing community members specifically about borehole sanitation and hygiene in times when depleted supplies may result in more people using the borehole and causing contamination problems

Additionally, the aforementioned joint planning of WASH Federations can include arrangements to ensure that those who have no water access can share available water in areas that continue to have access.

**Extreme Event**

Under conditions of low water supply and prolonged drought, the WASHCOs and WASH Federations can continue to undertake all of these early action functions in different ways. For example, in addition to previous rationing, the WASHcos can provide information on functioning water points that can be used and can give pack animals to people who are considered to live too far away from functioning water points. Through effective early action and by continuing to help to ensure that people are able to cope with accessible water sources, the options of migration away from such sources and other available services should be reduced. Similarly, water trucking that is expensive and entails risks such as water contamination in transport and storage can be minimized and used only as a last resort in the most extreme cases.

**IMPACTS**

The WASHCOs and WASH Federations were formed to directly improve the capacity for communities to manage their own water supply systems and to improve coordination of any repairs that are beyond their capacity. Specifically for enabling adaptive water supply, the following impacts to adaptability, resilience-strengthening, equitability, sustainability, and cost-effectiveness were observed.

**ADAPTABILITY IMPACTS**

**Undisrupted service**

Collection and management of fees and improved scheme management, monitoring, maintenance and repair abilities enable WASHcos to anticipate potential disruption problems and avert or minimize them. Quicker identification and coordination of major repairs minimizes the amount of time with no water while waiting for the RWST to arrive and fix them. Decision-making ability regarding how to ration water and to use alternative water sources locally and in neighboring WASH Federation villages enables WASHcos to minimize disruptions during times of...
Figure 20: Water Supply Linkage Diagram
breakdown or drought. Proper hygiene sensitization helps to ensure that contamination of water sources doesn’t cause inability to use water sources.

**Anticipating future needs**

By regularly maintaining water supply schemes, expensive repairs and breakdowns are avoided such that more funds are available in the future for sustainable water provision. Effective cost recovery and financial management can enable contingency funds to ensure that loans aren’t needed in future times of breakdown or drought. By continuing to use existing water sources locally and in neighboring communities as much as possible in times of breakdown or drought, dependency on water trucking and other external solutions can be minimized. And, through better decision-making about how to make such water sources able to meet their needs in times of drought, future problems resulting from migration away from homes and other available services can be avoided.

**Context relevant**

Members of WASHcos are selected by each community based on evidence that they will stay within that community in the future and that they are passionate about WASH issues and the wellbeing of the people who they represent. In times of drought, such selection results in them being able to make rationing and related decisions based on specific local needs that they understand. It also ensures that committee members are unlikely to leave the committee. They will be able to learn about how needs and conditions are changing and adapt measures that are most appropriate to that context. Because they are members of the community who also need this and other services, they are also likely to determine solutions with synergies across other needs within their own community and others with whom they cooperate in their WASH Federation.

**Do no harm**

Empowering local-level representatives in WASHcos and WASH Federations to determine ways to avoid water trucking and to avoid other temporary solutions that might lead to over-spending, dependency, and contamination helps to minimize the harm caused by such approaches. By encouraging them to determine ways to best utilize existing local and neighboring water sources, it should help to strengthen rather than undermine buffering, coping, and adapting mechanisms. Selection and incentives for WASHcos and WASH Federation members should be determined in a manner that encourages participatory representation to ensure that they do not create or exacerbate local power imbalances.

**RESILIENCE STRENGTHENING IMPACTS**

**Knowledge and Ability to Adapt**

Group discussions held with WASHcos, government officers and other partners confirmed that the training received by WASHcos and their operators has helped committee members to access and understand early warning signals faster. This information and training to better understand preparedness measures can help them and their members to better mitigate drought effects. Through such training and sustained involvement and decision-making regarding how to best ensure continuous water supply to meet the needs and conditions of their respective areas, WASHcos and WASH Federations can learn how to adapt to minimize breakdowns, how to adapt to minimize lack of access in times of drought, and how to adapt over time as conditions change. As representatives of their communities, information shared about this learning should also help users to also adapt and convey new learning to others in their groups beneficially.

**Access to basic services**

Better management of water can improve access to other basic services, especially for children. During times of breakdown or insufficient water levels at the current water point, people would need to resort to fetching water from distant sources. This time requirement and sicknesses due to water-borne diseases in this water are principal causes of low school enrollment, drop out and absenteeism in Ethiopia. At one WASHco visited in Halaba Weredad of SNNPR, women and children, particularly girls, would need to travel about two hours every day to fetch water and would be prone to diarrhea incidence and low school attendance. By ensuring continuous proximate and safe water supply, the WASHcos and WASH Federations also ensure more steady health and education.
**Adaptability**
- Better distribution management, repair & decision making helps WASHcos prevent disruptions across locations.
- Federation sharing helps prevent disruptions across locations.
- More funds are available if expensive breakdowns are avoided.
- Better use of local sources prevents future problems associated with water trucking & migration.
- Committed local WASHco members understand local needs & learn to determine appropriate local solutions.
- Helps reduce harm caused by other temporary solutions & provides alternative adaptive mechanisms.
- Selection/incentives = no power imbalances.

**Resilience - Strengthening**
- Better understanding early warning leads to learning how to adapt.
- Better water access reduces illness and reduction in time spent getting water.
- Improves education & health.
- WASHco members represent community.
- Accountability to WASH Federation encourages community decision making.
- Better management leads to better water access & livelihoods to meet current & future needs.

**Equitability**
- Participatory input leads to vulnerable consideration.
- Migrants, vulnerable & remote considered in droughts.

**Cost Effectiveness**
- If cost recovery, cost effective: study needed to determine if can cover training and contingency.

**Sustainability**
- Cost recovery and contingency fund through user fees.
- Better mgmt/maintenance leads to sustained use.

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**Intended**
- Increased WASHcos' fed capacity.
- Increased repair Coordination.

**Impact Diagram**

Figure 21: Impact Diagrams

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**Notes:**

- More funds are available if expensive breakdowns are avoided.
- Better use of local sources prevents future problems associated with water trucking & migration.
- Committed local WASHco members understand local needs & learn to determine appropriate local solutions.
- Helps reduce harm caused by other temporary solutions & provides alternative adaptive mechanisms.
- Selection/incentives = no power imbalances.

- Better understanding early warning leads to learning how to adapt.
- Better water access reduces illness and reduction in time spent getting water.
- Improves education & health.
- WASHco members represent community.
- Accountability to WASH Federation encourages community decision making.
- Better management leads to better water access & livelihoods to meet current & future needs.

- Cost recovery and contingency fund through user fees.
- Better mgmt/maintenance leads to sustained use.
Participatory decision making

Because WASHco members are members of the community of water users that they represent, the system should inherently be participatory and empowering. When visited WASHcos in SNNPR were previously accountable to the Weredass water desk rather than to the community that elected them, lack of transparency and mismanagement of funds were considered significant problems. The recent formation and legalization of WASH Federations is designed to encourage a role of WWTs as partners in developing the accountability of the Federations to the WASHcos and the WASHcos to the water users. Although this system is still new, such a system can be expected to contribute to seeking input from community members and sharing in decision-making responsibly. The aforementioned determination that needs are met appropriately for all users normally and for prioritization or needs in early action and extreme times depends on such a system of user input. If run effectively, it should also have spillover effects that improve participation in decision-making beyond WASH decisions.

Ability to meet needs

More responsible financial management and cost recovery should result in WASHcos being better able to have funds on hand for recurrent expenses and for contingencies related to breakdowns and droughts. Furthermore, better access to continuous quality water should improve livelihoods through better health of those who work and regular water for livestock, crops, and services in the short term. The aforementioned improvements to education access and health should lead to further improvements in income and decision-making for how to ensure that needs are met in the future.

Equitability

If the system is based on participatory input, WASHCOs and WASH Federations are empowered to consider the local context of how to manage the water supply scheme to ensure that those most vulnerable to not accessing water can have access in both normal and extreme times. For example, WASH Federations in the reviewed areas were planning to extend water pipes to distant villages to increase water access for remote areas. Although visited WASHcos had user fees to ensure cost recovery, they also waived such fees for households that they determined to be poor and vulnerable. In this manner, effectively trained and coordinated WASHcos can make similar decisions regarding how to ensure more equitable access among their users and to neighbors in their Federation in normal times and to ration water for early action and extreme droughts to effectively meet the needs of migrants into their area, of elderly people and other vulnerable households who can’t travel far distances to get water and for service facilities that are prioritized.

Sustainability and Cost-effectiveness

The system of charging user fees for cost recovery is designed to ensure that WASHcos can be self-sustaining in maintaining their schemes. More training in financial management is needed to ensure that fees charged enable recurrent expenses for normal times to be covered with a buffer amount remaining that can be saved for contingency funds to cover major repair expenses from breakdowns and costs of pack animals or other such extra costs during extreme droughts. Better scheme management, maintenance, and hygiene sensitization skills should ensure that schemes are more sustainably maintained. Although the expenses of the training to develop these skills is not being covered by WASHcos and Federations, the system of maintaining long-term committee members and operators should help to reduce such training needs until user fees can be used for periodic in-service training that is agreed upon by WASHcos as beneficial to their needs.

The benefits of access to continuous clean water include decreased incidence of water borne illness, reduced time collecting water and increased attendance at school. Accordingly, a recent cost-benefit analysis in Ethiopia found water management investment as prescribed by the WSDP to yield at least US$5.5 in benefits for every $1 spent (Cabot-Venton et.al, 2012). If cost recovery can be established in a manner that covers maintenance, repairs, fuel, operator incentives, contingency funds and any training needs, the system will have no costs external to the system and will be entirely cost-effective. A recent study in Halaba special Weredass in SNNPR
showed that the WasSHCOs there were effectively covering their recurrent costs with an average of Birr 23,000 remaining (Kocanda et al., 2013). Although a more extensive study is required to determine how effectively they can cover all contingency and training costs, this manner of training and coordination seems likely to be able to be replicated cost-effectively in areas without extreme dryness, remoteness, and lack of capacity and infrastructure issues as long as initial training can be effectively conducted to ensure proper cost recovery and scheme management result.

**CASE STUDY: CAPACITY BUILDING AND COORDINATION THROUGH STRATEGIC BOREHOLES & THE EVOLUTION OF WASHCO SUPPORT FROM MOBILE MAINTENANCE TEAMS AND PRIVATE SUPPLIERS**

For places with such extreme dryness, remoteness and lack of capacity and infrastructure issues, different arrangements are needed. The Somali Region is one of the pastoral and agro pastoral, drought prone areas of Ethiopia. Shortage of drinking water for humans, animals and facilities is one of the critical problems faced by its population. The livelihood of the majority of the population is based on livestock production and the communities move seasonally in search of pasture and water. Located in remote areas, most of the water supply schemes that provide services during the dry season are limited in number and require regular maintenance to provide continuous service. Besides facing extreme problems of insufficient rainfall, the dryland areas of the Somali region also face other constraints that can prevent their WASHcos from working as effectively as described in the previous case study. These can include lacking easy access to the water source, to supervision, to parts and to major repair assistance due to remoteness and low literacy and other qualifications that can enable better WASHCO management and operation capacity. Additionally, some members of pastoralist families will migrate to areas where there is better access to water for their livestock. In addition to boreholes, they may rely on water ponds and berkats in periods of insufficient water. Berkats are linked to a series of environmental problems such as the encouragement of settlements that result in large-scale deforestation through firewood and coal production and concentration of livestock and mobility restriction through private ownership of the grazing resources around them (Somali Regional State of Ethiopia, 2012). For these reasons, approaches to reducing the problem of berkhat use and of reactive water trucking in favour of proactive adaptable borehole solutions in the Somali Region include capacity building and coordination through strategic boreholes and contextually appropriate adaptation of the types of WASHCO support provided by Mobile Maintenance Teams (MMTs) and private suppliers of parts and repairs.

MMTs are teams of water supply technicians that regularly travel to locations that are remote with poor infrastructure and low capacity to supervise and provide hands-on training to WASHcos, to do repairs for which the WASHco lacks capacity and to bring needed supplies for maintenance and repairs that the WASHco can do. Strategic boreholes serve as one of the solutions in the JAP to reduce water trucking needs by ensuring reliable, accessible, safe water sources as either primary sources or nearby alternative sources problems affect the primary source. Their locations are determined by identifying demand by mapping hotspot areas which have repeated water shortage and trucking needs. Then a matching supply is identified by determining sources for boreholes that can be dug deeply and widely enough and maintained well enough to optimize access for the maximum number of people in these hotspot areas.

**HOLISTIC LINKAGES**

**Normal Times**

WASHcos are designed to make decisions regarding water distribution and cost-recovery fees and do maintenance and minor repairs generally as they do in the rest of the country. Due to the aforementioned remoteness, poor infrastructure and low capacity problems, however, they require alternative arrangements in order to help them to maintain service.

For maintenance and minor repairs, supplies and parts may not be locally accessible. As seeking these items would be difficult and time-consuming for the WASHco itself, the MMT can help by delivering what is needed regularly to the WASHco. Once sufficient demand is
realized, this role can be minimized through more sustainable arrangements of WASHcos using collected fees to buy from private suppliers who are encouraged to sell such items in these areas.

Many types of repairs can be beyond the limited abilities of the WASHco. Because of the distances involved, waiting for the WWT to come to fix such problems could cause significant disruptions in water supply. A system has been piloted of WASHcos sending by cellphone data and photos of arising issues in order to address them as soon as possible. Accordingly, the MMTs can be called upon to do such repairs but do so in a supervisory and training role. By overseeing what WASHcos are doing during visits and providing hands-on training for regular operations and these repairs, WASHco capacity is improved for the future so that this role can also sustainably evolve toward elimination over time. Similarly, although broken pumps or generators can be taken by the MMTs for repair and then returned to the WASHcos, a more sustainable and adaptable solution can be for WASHcos to pay a fee to private suppliers to trade their broken pumps or generators for those that are working and can immediately be put to use.

The strategic boreholes are developed and maintained during normal times. The aforementioned hotspot mapping and determination of sources that can be developed into these high-capacity boreholes is done by the RMT regularly to help to minimize future water trucking needs in these areas. MMTs provide regular maintenance service to about 38 strategic boreholes that serve many people. They also work to ensure future continuous supply of water by traveling at the end of the rainy season to these boreholes that will be major sources of water supply during the dry season to provide preventive maintenance.

**Early Warning Early Action**

As in other WASHco arrangements, WASHco monitoring of scheme water levels can serve as one of the indicators collected at the kebele/community level and passed to the higher administrative levels in the WASH cluster for decision making purposes and potential DPPB issuance of drought early warning information regarding where and when to expect water shortages. Upon receiving such early warning information, the WASHco makes decision regarding early action to ensure continuous safe water access, including such measures as rehabilitation of the existing water supply schemes, distribution of water treatment chemicals, water rationing and sensitization on sanitation to control communicable diseases that might arise from overuse of pumps when water levels are low at alternative sources.

Normal time MMT preventive maintenance of the water supply systems and training to enhance and facilitate the WASHcos’ management ability to manage water shortages helps to ensure that early action will be effective by addressing potential problems before they arise. And the regular and preventive maintenance of the strategic boreholes enable more easily acceptable rationing decisions. Users who are determined to be a lower priority for use of diminishing supplies from the primary local source can depend on availability from a nearby strategic borehole. Additionally, knowledge of strategic boreholes along potential migratory routes enables pastoralists to make informed decisions regarding where to migrate to prevent lack of water for themselves and their animals. MMTs are provided with information about seasonal mobility from the zonal and Weredass administrations that helps them to continue to provide needed support when they migrate.

**Extreme Events**

The aforementioned early action measures should help to delay or prevent realization of the extreme drought condition of available water from the primary source becoming too low for users’ needs to be met. If this is realized, availability of water from the nearby strategic borehole allows options such as more stringent rationing of remaining stored water and provision of pack animals to help vulnerable groups and facilities to get water from the strategic borehole. If the drought is so extreme that such water is unavailable, previous coping mechanisms such as utilizing traditional water sources and migration to areas with available water can still be employed. Although temporary water trucking with a well-defined exit strategy can also be used as a measure of last resort in extreme cases, more water availability and better management of it helps to minimize this need.
**IMPACTS**
The repair coordination described in the previous case study is enabled by MMTs in remote areas. They also help with the desired improvement in WASHco capacity to manage fee management, distribution and repairs in a manner that reduces the need for assistance. Development of strategic boreholes and maintenance of them by MMTs helps to ensure that increased borehole capacity enables accessible water supply for regular and adaptable solutions.

**ADAPTABILITY IMPACTS**

**Undisrupted service**
The existence of maintained strategic boreholes ensures better regular access in normal times and also adaptability options for individuals and WASHcos to use so that such nearby water can be used in times of drought and other water shortages at their primary source. The work of the MMTs for repairs helps to minimize disruptions in the short-term and to develop WASHco capacity to minimize such disruptions in the long-term. Similarly, making parts and supplies more easily available helps to facilitate maintenance and repairs that can keep WASHco schemes running well in the short-term and can help WASHcos and private vendors to determine which parts and supplies can be purchased as a long-term solution.

**Anticipating Future Needs**
Monitoring the hotspots, determining which areas can provide strategic boreholes, and MMT preventive maintenance and repair of them helps to prevent water trucking, migration, adverse coping and other costly future problems of insufficient water. WASHco training in monitoring the water levels helps them to anticipate potential shortages and to make prioritization and rationing decisions that help to avoid insufficient water for essential needs. Learning to maintain schemes and to do regular repairs properly and to pre-order supplies and parts for such work and for learned anticipated future problems helps to avoid expensive breakdowns that unsustainably use collected fees that could be better utilized for improving and maintaining water distribution.

**Context relevant**
Strategic boreholes are built based on understanding of local water shortage and trucking problems and of local sources that can be used to alleviate these problems. MMT knowledge of migratory patterns and of the types of problems faced by WASHcos in the areas that they serve can help them to tailor their approaches to what is needed while the system evolves to allow WASHcos and private suppliers to address such issues. As in other areas of the country, the key to WASHcos being context-relevant is their learning over time to understand common local problems and their warning signs and to represent the water supply users when deciding how to overcome them. MMTs can help to do this by training operators and WASHcos about potential problems in their areas.

**Do No harm**
If they are maintained well, strategic boreholes provide an alternative water source that helps to reduce reliance on negative coping mechanisms such as using contaminated water sources and relying on expensive and possibly contaminated trucked water. They do so without crowding out rationing, migration, reliance on alternative water sources and other previous coping mechanisms. Similarly, WASHco capacity building and repair coordination through MMTs should reduce rather than exacerbate problems associated with being unable to provide continuous safe water access.

**RESILIENCE STRENGTHENING IMPACTS**

**Knowledge and Ability to Adapt**
Strategic boreholes provide WASHcos and their users with an additional option that can be used in decision-making for how to adapt the normal water distribution protocol when water levels are expected to be low. MMT training on monitoring water levels and on understanding early warning information further improves ability to predict and prepare for potential problems and to find adaptive solutions to them. While teaching routine repairs, MMTs should also encourage WASHcos to develop the skills to identify problems and to determine their own solutions to them so that they will be able to adapt to unforeseen problems as well.

**Access to basic services**
The regular benefits to nutrition, health, and education from improved clean water sources, more water for
livelhoods and better resulting sanitation and hygiene are augmented with improved ability to store water. Both the strategic boreholes and the MMT training enable the option of storing water so that education and health facilities can have sufficient access to water in times of normal and low water levels. By reducing the need for migration and providing water points where people do migrate, they also help ensure consistent access to either static service sites or to mobile facilities that can predictably operate near these water points.

Participatory decision making
Like in other areas of the country, training that better enables WASHcos to involve the users who they represent in decision-making should be transferrable to better participatory decision-making in general. Part of the process of developing this relationship with users is trust which can be better developed if the WASHco is able to demonstrate competence in ensuring reliable water access in both normal and extreme times. MMT training on better operating and maintaining the system and on early action based on early warning as well as the existence of strategic boreholes as a linked alternative water source should help to develop this competence and trust.

Ability to handle needs
As in other areas of the country, improved clean water sources should improve hygiene, sanitation, nutrition and health and have a resulting positive impact on ability to work and to self-supply needs. When
combined with increases in quantities of water for livelihoods, the result should be improved income that can be used for purchasing needs and for saving in funds that can be used adaptably to ensure that needs are met in times of difficulty.

**Equitability**
The roles of MMTs and strategic boreholes are specifically for remote, relative inaccessible areas with low levels of infrastructure and WASHco capacity. They also meet the needs of pastoralists by being able to provide strategic boreholes in places where they may move and by being able to bring their mobile services to them when they move.

**Sustainability**
Identifying and digging strategic boreholes is a one-time investment. Maintenance of them, however, requires recurrent expenses of MMTs. Much of the current costs of operating MMTs are funded by donors through NGOs and from regional government bodies. These costs are considered too expensive for the local government and the WASHcos to bear themselves. As mentioned previously, however, the role and related costs of MMTs providing supplies and parts and of doing supervision, training and repairs is designed to be reduced optimally over time. Through encouragement of private vendor supply of parts and supplies and of training of operators and WASHco members who will continue to build upon developed skills, MMT roles can evolve to be more sustainable. If development enables better road conditions and other improvements to make remote areas less remote, such roles can change and costs can be reduced even further. In this manner, the current expenses of MMTs are an investment in capacity development that should be reduced over time to a point at which user fees can pay for any remaining needed services of the MMTs in most areas and the government can sustainably fund the roles that remain for the remaining remote areas and the strategic boreholes.

**Cost effectiveness**
Although the current expensive nature of MMTs is not considered to be cost-effective in isolation, the alternative of emergency water trucking to remote areas is also not considered cost-effective. A cost-effectiveness study that evaluates the combined costs of constructing and maintaining strategic boreholes and of the initial investment and declining costs in the evolution of MMTs through better management and private supply in achieving reducing the expenses and other related problems of breakdowns, lack of water access, water trucking, migration and other such solutions should be conducted. Such a study should aim to also determine the level of payments needed to be collected for water supply that would be required to make such a system sustainable.

**LESSONS LEARNED AND RECOMMENDATIONS**

**Key Lessons Learned**
- The implementation of water supply, sanitation and hygiene services in an integrated and harmonized manner would help efficient utilization of resources and help the community to get the service at one point
- If implemented properly, the WIF could be an important instrument of achieving the needed behavioral changes in hygiene and would enable improved resilience by improving health and nutrition
- In Somali region/pastoral areas, the identification of hot spots and the continuous monitoring and assessment of water supply situation were found to be important in facilitating early action and response
- Context specific water supply institutional arrangements such as the MMTs improve the resilience of the community, ensure continuous supply of water in pastoral and agro pastoral areas and reduce water trucking
- The establishment of trained local WASH structures such as WASHcos in both regions was key to the delivery of sustainable WASH services
• Continuous capacity building activities for WASHcos would enable better continuous WASH service
• Stronger WASHco transparency and accountability contribute to better WASH service delivery

**Recommendations**

- How the WIF is linked to the DRR policy and EWS is unclear; make it better linked to EWS during the strategy's implementation
- Continuous capacity building training activities in health, nutrition, water and education in the WASHCOs is needed for the effective implementation of the "One WASH" national programme
- Reorganization of the WASHCOs and its collectivization into federations would help mobilize more resources and improve coordination, management and ownership of the water supply schemes so that the services are supplied without disruption and on an equitable basis
- Evolving MMT training, private suppliers and cost sharing contributions should be established as ways to reduce reliance on external funds and make WASHcos sustainable
- Efforts should be made to formally legalize WASHcos in all states in order to strengthen and expand their mandate, authority and accountability mechanisms
- Ongoing capacity building should be provided for WASHCOs to address the issues of staff turnover and insufficient capacity
- Women should be enabled to actively participate in decision-making processes in WASHCOs
- Stronger linkages should be created between WASHCOs and HEWs in order to broaden the focus of WASHCOs from solely concentrating on water supply to the full spectrum of WASH services
- Encourage private vendors to supply needed parts and supplies to WASHcos. Encourage retention and apprentice relationships for operators and WASHco members so that MMT training needs are reduced over time. Reduce MMT roles over time to a point at which user fees can pay for any remaining needed services of the MMTs in most areas and the government can sustainably fund the roles that remain for the remaining remote areas and the strategic boreholes
- Donor support to the WASH sector should be harmonized
- WASHco training should include monitoring water levels as early warning, understanding early warning information, early action options when early warning signs are received and identifying unforeseen problems and determining workable solutions to them
- Strategic boreholes should be linked to WASHcos so that they can reliably consider them as an option for early action and extreme times
- Establish contingency funds through collected fees to prevent having insufficient funds for major repairs or drought-related provision needs
- Use apprenticeships or other means of training new members within the existing system to help make training sustainable
- Selection and incentives for WASHco and WASH Federation members should be determined in a manner that encourages participatory representation to ensure that they do not create or exacerbate local power imbalances
- Waived user fees for households determined to be poor and vulnerable.
INTRODUCTION

Identified problems in the education system include limited and inequitable access, lack of quality and relevance, and a continuous decline in quality and standard (MoE, 1994). Investments in the education sector have enabled substantial progress in achieving the MDG target of universal access to primary education by 2015. The national gross enrollment ratio for primary schools has increased from 55% to 95% between 2000 and 2012 (MoE, 2012). The data also shows that the enrollment of girls has rapidly increased during these years. While most regions in the country have almost achieved the MDG target, access to primary education has been lagging behind the national average in the Developing Regional States. For example, the 2011 net enrollment ratio was 53% for boys and 48% for girls in Somali Region and 32% each for boys and girls in Afar Region (MoE, 2013).

EDUCATION POLICY OF ETHIOPIA

The Education policy of Ethiopia recognizes the need to achieve universal access to basic education through the expansion of formal and non-formal education with full participation of the community (FDRE, 1994). The policy clearly states the need for universal access to primary education, the achievement of equitable education for boys and girls and the consideration for special needs education. In order to make the policy operational, the government adopted a programmatic approach to the sector's development since 1997 that led to successive five year nationwide Education Sector Development Programs (ESDP I, ESDP II, ESDP III and ESDP IV).

The GTP's emphasis on voluntary settlement as key to future development of pastoral and agro-pastoral areas implies less future demand for mobile, flexible services. Accordingly, although ESDP-IV recognizes the significant role of expanding ABEs in improving access to education and increasing enrolments in these areas, it focuses on improving quality of education in an increased number of formal schools. Similarly, the Somali Regional State ESDP-IV and the Somali Regional State Education Strategic Plan for 2010/11-2014/15 propose the phasing out of ABE centres and the use of other strategies such as mobile schools and para-boarding schools as ways of increasing both access and quality and standard of education.
The government has made substantial financial, infrastructural and human investments in the education sector over the past few years. Infrastructure investments have included constructing educational institutions at various levels and equipping them with the necessary facilities. To improve the quality of education, training to improve the quality of education has been offered to staff working in the educational institutions at various levels. Though detailed disaggregated financial data is not available, figures from the MoE (2011) show that over the years 2007 to 2011, government investment in the educational sector increased from Birr 7,632.5 million to 21,328.1 million with an average annual growth rate of 29%.

**IMPLEMENTATION APPROACH OF THE EDUCATION SECTOR**

The roles of the MoE include formulating the national education policy, setting educational quality standards and formulating the general curricula of education and training. All the regions have their respective regional bureaus of education and each zone and Weredass has its own office of education. The roles of the regional bureaus of education include planning and providing access to formal education, organizing teachers’ training programs and developing curricula for primary education. While the management of universities and Technical and Vocational Education and Training institutions (TVETs) is under the Federal Ministry of Education, the administration of primary and secondary schools and junior colleges falls under the responsibility of the regions. Kebele Education and Training Boards (KETB) are responsible for educational planning and management. Although Parent-Teacher Associations (PTAs) help with the decision-making regarding planning and operations at formal schools where the calendar and timing are fixed, the Parent Management Committees (PMCs) at ABE centres additionally determine the time during the day and the days during the year that are most suitable for those who might attend.
The Peace and Development Program (PDP)

Funded by DFID and to be implemented by a consortium of NGOs including Save the Children UK, Mercy Corps and Islamic Relief, PDP aims to strengthen Somali Region basic service provision. Only operational since August 2013 and still in the planning phase at the time of this Review, PDP is to begin as a 15 Weredass intervention in education, health and WASH for institutional capacity development for delivery of services. This will include staff capacity development at the Weredass/regional level in such areas as annual planning and technical skills and community capacity building to enable continuing services. Although its primary focus is on access rather than drought contingency, but it does encourage risk-based planning for implementation of new services. 30 ABEs to be supported by PDP will receive support in the form of building structures and latrines, strengthening capacity of the CMCs and providing library books, mobile kits and registration cards. In addition to this education support, health assistance will include building 3 health centres, rehabilitating health posts and HEW and other training. The biggest part of the budget will be for WASH assistance including training WASHcos and WWTs and installing and rehabilitating water sources.

CASE STUDY: FLEXIBLE ARRANGEMENTS THROUGH ABEs AND FORMAL SCHOOLS IN PASTORAL AND AGRO-PASTORAL AREAS OF SOMALI REGION

The Somali region is characterized by under development, limited service delivery, frequent livelihood crises and insecurity. The local government system faces several challenges which it is unable to address adequately due to lack of funds and qualified personnel. 85.7% of the Somali region population lives in rural areas and is predominantly pastoralist, with a smaller proportion of people being agro-pastoralists. These communities migrate on a seasonal basis, moving at least once a year to neighboring communities where water and pastures are available.

Challenges to improving access to quality education in the region include: the low value attached to children's education, low community participation in education, low parental education and literacy, limited number of schools, limited school technical and financial capacities, shortage of qualified teaching staff and appropriate materials and limited human and financial resources in government education offices (BRIDGES, 2012). Pastoral and agro pastoral children must also contribute to their families' livelihoods by looking after livestock, fetching water and undertaking other farming and pastoral activities. These factors clearly affect their ability to attend classes so dropout, non-completion and repetition rates are high. Education approaches also need to address the root causes of conflict by developing curricula which are based on the messages of tolerance and respect. The prevalence of conflict in the region exacerbates the inability of children to safely access education (Napier, 2012).
Due to the factors described above, a flexible mode of education delivery, Alternative Basic Education (ABE), was designed and implemented for pastoral and agro-pastoral communities in the Somali region by Save the Children Fund in 2002. Since that time, most of the more than 2,000 ABE centers in the region’s 67 districts have been transferred to the Somali Regional Education Bureau (BRIDGES, 2012). The ABEs provide a complementary alternative to formal schools by enabling ABE facilitators and PMCs to flexibly tailor access based on the reasons why children and particularly girls are unable to attend regular schools.

Several benefits of ABEs have been identified. Providing alternative education mechanisms has clearly improved overall enrollment. Over 800,000 children access education through ABEs nationally (DFID, 2011). If not for flexible ABE centres, most Somali people would not have any education at all. Additionally, the existence of these ABE centers and related sensitization strategies have improved general awareness of the importance of education. The availability of such schools has helped reduce gender inequality in educational access as significant numbers of girls were enrolled through the program. Identified problems include a low quality of education provided, an often insufficient level of training received by facilitators and the difficulties associated with differing migration patterns which do not always allow for facilitators to move with the whole community. The impact of mobility and the generally low population density of pastoral and agro-pastoral communities also complicate constructing buildings and facilities.

Despite the government’s encouragement of voluntary settlement, many people will continue to migrate as long as incentives remain to do so. Similarly, despite the government’s encouragement of more flexibility of hours and ages in static formal schools, imbalance between the structure of formality and attempts at flexibility is likely to result in many children and adults at least temporarily preferring the added flexibility of ABEs. As such, efforts should be made to overcome these identified problems and to otherwise enable optimizing the flexibility and adaptability of ABEs for those people who continue to require their services.

**HOLISTIC LINKAGES**

**Normal Times**

Formal schools currently operate with a fixed calendar, fixed timing of classes, a formal regulated curriculum, fixed age categories for grades and strict certification of teachers. School boards, PTAs and teachers receive training for school and curriculum management and schools receive materials and equipment to help them meet determined needs. Though not exclusively, they tend to attract students whose families are involved in agriculture or other non-livestock based livelihoods.

ABE centers tend to attract students whose families migrate temporarily each year with their livestock or whose schedules prohibit attending formal schools. These can include children who have work duties and specifically girls who have married and have obligations in their homes. Since there are no formal age requirements, they also can accept students who wish to return to schooling after missing some years, including adults who wish to receive basic education. Because of such migration, work and home demands, the Centre Management Committee (CMC) for each ABE centre individually determines its calendar of when it will be open each year and its timetable of when classes will be offered according to when it can attract the most students. English, Somali, math and social science are taught based on a curriculum that can be altered to suit the contexts of pastoral and agro-pastoral communities.

Although availability of people who meet the criteria of minimum completion of grade five in formal education and other such problems can require outside facilitators, facilitators are recruited from the community in which they serve. They receive training on how to teach, on the subjects that they are to teach and on what to do during times of ‘education in emergences’. CMCs receive training on how to determine the school calendar, how to mobilize students to return after migration and how to manage school grants to improve and repair facilities. Although one of the problems of ABE centres is their lack of quality buildings and facilities, the ability to improve and repair them can help to reduce dropouts from those who won’t attend if they feel that they are inadequate. Since the ABEs were initiated in areas with minimal human and financial capacity, Save the
Figure 26: Education Linkages Diagram
Children, Oxfam, UNICEF and other partners conducted such training of ABE facilitators and PMCs and also did capacity building by determining and providing essential materials for operation of the centers. Additional attempted initiatives to improve access have included camel libraries that make non-textbook reading materials available to children regardless of whether or not they are schooling and second cycle ABEs that enable students to continue beyond grade four. These second cycle ABEs allow more children to attend and also encourage parents to enroll children in grade one with assurance that they could continue beyond grade four.

**Early Warning and Early Action**

For both ‘normal dry season adaptation’ & ‘severe drought adaptation’, many people usually migrate in search of pasture and water. For severe droughts, there is a formal system in place for the districts to receive information from the federal Early Warning System of the DPPB, but field-level discussions revealed that kebeles may not receive such information and that communities relied on their traditional knowledge to assess the drought situation rather than any external early warning information.

Flexible school timing allows ABE centres to close if there is drought-induced migration and to reopen when people return. School closures are first decided by the Parent Management Committees (PMCs) and elders. These decisions are recorded and shared with Weredass level education offices for final approval. During migration, various adaptation measures are used to ensure that students’ education will be undisrupted. One sign of success of ABEs in attracting students is that some families now choose to prioritize migrating to a place that has both a water point and an operating ABE Centre. A recent innovation allows students to join other ABE centers by making use of school networking cards. These networking cards record information regarding their attendance at previous ABE centers and allow them to maintain the regularity of schooling by being able to join other ABE schools during the period of their migration. Additionally, although some ABE centers are static and close when people migrate, the facilitators at nomadic ABE centers migrate with the community to continue offering education services. Although this can be difficult since different people will move at different times and sometimes to different places, the two ABE facilitators and any assistants can be split to best accommodate as many migrating or remaining students as possible.

**Extreme Events**

In periods of extreme drought, the federal and regional governments declare a state of emergency. In such circumstances, schools and ABEs are closed and communities usually move to areas where they can receive assistance by the government or humanitarian agencies and NGOs. One benefit during such times is that there is historically no conflict during droughts and even enemies will host each other in understood reciprocity agreements. When the pattern of movement is within the country or region, emergency education is usually provided collaboratively by the government and donors. If it is cross-border, refugee education is provided. If through flexible education arrangements such as those described as early action and other such processes for livelihoods and other services enable them to avert a disaster situation, the disruptions and associated difficulties of such an emergency situation can be minimized.

**IMPACTS**

The intended impacts of establishing ABEs as alternatives to formal schools include the overall increase in access to education, specific increased enrollment of girls and reduced dropout rates.

**ADAPTABILITY IMPACTS**

**Undisrupted service**

During times of expected drought, networking cards and nomadic facilitators can help to ensure that students continue education in the places to which they migrate. At all times, flexibility in age of attendance, timetable and calendars helps to minimize dropouts and absenteeism. Although the flexible calendar allows CMCs to close and open the ABE centres according to when students are likely to attend, this can lead to problems such as having insufficient days for the full curriculum. There can also be problems related to how to schedule according to seasons since the north and the south of the region have different seasons and since closing in the dry season may cause a loss of
Intended
- Overall increase in educational access
- Increased enrollment of girls

Adaptability
- Flexible calendar, timing ages increases attendance
- Networking cards, nomadic facilitators help when migrate
- Plan for reopening & mobilizing student return
- Local facilitator equals more interesting curriculum
- PMC set calendar & timing to students/family needs
- Networking & moving facilitators fit with migration
- Not consistent for those who migrate across borders
- Designed consistent with lifestyle/livelihoods
- Positively affects coping without influx related conflict

Resilience - Strengthening
- Education helps people decide how to adapt
- PMC & Facilitators training helps with closure decisions for early action & for teaching in emergencies
- Capacities of committees improve
- Can access information for better nutrition & health
- ABEs near water points prevent need to choose
- Parents, CMCs, PMCs representative decision-making
- Community input strengthened & should be sought
- Better access = better income = service access & buffer

Equitability
- Flexibility increases access to those who could not attend regularly
- Networking helps ensure that migrant students are treated the same as host students

Sustainability
- Donor funding needed for capacity building and for piloting innovations that improve access & adaptability

Cost Effectiveness
- ABEs successfully get more students some levels of education
- Should study optimal mix of formal & ABEs to maximize enrollment & attendance

Figure 27: Education Impact Diagram
funds that are contingent upon children taking exams during that season. Training for facilitators and CMCs should include a focus on how to optimally set flexible calendars.

**Anticipate Future Needs**

By learning to plan for how to appropriately reopen the centres and mobilize students to return, major disruptions from an inability to restart can be avoided.

**Context relevant**

When ABE facilitators are selected from the communities, they are familiar with the context in which their students live and can maintain interest and attendance by adapting the curriculum to their needs. The PMCs’ role in determining, together with the facilitators, the calendar and timetable ensures that it is appropriate to students’ needs. Networking cards and nomadic facilitators are solutions that are tailored to solve specific problems of people who occasionally migrate. Since migration across borders can result in differing curriculum, however, efforts should be made to enable collaboration on a common curriculum that suits the contexts of potentially migrating students on both sides of the border.

**Do no harm**

During normal times, this system is tailored by the CMCs and PMCs to ensure that it does not conflict with its users’ livelihoods and lifestyles. During times of migration, it provides additional coping mechanisms for helping to ensure continued education access in a manner consistent with their migration coping mechanism. Interviewed committee members and facilitators stated that no problems of conflict arise because of influxes of new students to the centres with such migration.

**RESILIENCE STRENGTHENING IMPACTS**

**Knowledge and ability to adapt**

By significantly increasing the number of people who can access basic education, knowledge and skills of individuals are enhanced that enable them to access and use information from various sources to decide how to respond to changes. Beyond the long-term potential of children, consistent adult education in literacy and numeracy should have more immediate impacts. Training to facilitators on how to manage education in the context of emergencies and to CMCs to manage the calendar and make decisions regarding closing the centres to encourage early action migration also help to ensure beneficial adaptation.

**Access to Basic Services**

This increase in access to basic education also means that people can better access information to improve their nutrition and health and that capacity in the Health Development Army, WASHcos and other committees that help enable better service access will be improved. By putting ABEs near water points where people migrate, it also helps to ensure that people don’t need to choose between these services.

**Participatory Decision Making**

The roles of parents on PMCs together with community elders and CMCs in planning the calendar, timetable, curriculum and new skills to be taught help to strengthen abilities to make representative community-beneficial joint decisions (Schelling et al. 2008). Joint decisions by CMCs and facilitators regarding closure of schools and facilitator migration should also be done collaboratively based on community input to empower them for these and other decisions. Improved education access also improves people’s ability to provide constructive input toward and to logically contribute to decision-making.

**Ability to meet needs**

In the Somali Region 31% of the population is aged between 0-9 years and another 28% is aged between 10-19 years (IFPRI 2012). Better education access for this large part of the population would increase their technical capacity and better enable them to engage in diversified opportunities for higher income that can be used to enhance access to services and to buffer droughts and other shocks. It should also fill capacity gaps at regional and woreda levels so that better decisions can be made to help communities overcome future problems. Investing in the education of girls should reduce fertility rates and slow the population growth rate (IFPRI 2012). Resulting reduced gender inequality should have long-term effects on the wellbeing of the children and on poverty reduction:
Equitability

Limited access and lack of flexibility in education service supply are often the major causes of inequality between different social groups and members of a community. Absence of age restrictions, flexibility in timing and accessibility of ABEs has increased the enrollment of girls and offered older pupils the possibility of receiving an education. In doing so, ABEs have contributed to the provision of equitable education services in the region by bridging gender disparities and the gap between pastoralist communities and other communities in the Somali region.

Sustainability

ESDP IV views ABEs as a temporary measure until their roles can be filled by formal schools. As long as students need flexible solutions that can’t be achieved in formal schools, investment in capacity building training and materials will be required to enable running the centers in areas of low capacity. Donor funding is required for much of this capacity building and for piloting innovative approaches to improving access and adaptability of it such as the registration cards and second cycle primary education. It also requires facilitators and committee members who are trained and committed to success of the overall system of schools and ABEs. Otherwise, costs of maintaining and operating them are minimal and sustainable.

Cost effectiveness

If cost-effectiveness is considered in terms of quality of education delivered, ABEs with their lower standard and required capacity investment are unlikely to compare well with formal schools. But if it is considered in terms of ability to encourage dropouts and other non-school attendees to return to get basic education that is beneficial to decision-making, it may fare well. Infrastructure costs and facilitator salaries at ABE schools are lower than those of formal schools. The proportion of facilitators to students is also lower in ABEs compared with formal schools. A study should be done to determine the most cost-effective mix of having both formal schools and ABEs to optimize the number of students who can equitably receive education.

LESSONS LEARNED AND RECOMMENDATIONS

Lessons Learned

- ABEs are not conflicting with formal schools but are complementary. Flexible education remains instrumental in increasing school enrollment and achieving equitable education in pastoral and agro-pastoral areas.

- Problems of ABEs being run like formal primary schools are often attributed to them being run by facilitators who shirk the requirement of being from the community.

- The use of innovations such as networking cards and the movement of facilitators with students during times of migration have enabled students to receive continuous and undisrupted education services.

- Mobilization of local human and material resources would enable improved access to education in remote and hard to reach areas.

- Continuous capacity building to facilitators and PMCs is key to increasing education quality and enrollment.

Recommendations

- The calendar, timetable and age flexibility of ABEs should be maintained as a complementary alternative to formal schools that helps to increase overall access. The capacity building trainings to the facilitators and the PMCs should include sensitization regarding how to do flexible calendars in a way that still has a sufficient number of days to teach the full curriculum.

- Training should include methods for mobilization of students who have returned from migrating to the ABE centres. Part of encouraging attendance should be ensuring that facilities and materials are conducive to attendance. Curriculum should be tailored to pastoralist and agro-pastoralist interests but should be harmonized across the region. For those who live near and migrate across borders, efforts should be made to ensure that they
can easily assimilate into education centres with similar curriculum.

- Decisions by CMCs and facilitators regarding closure of schools and facilitator migration should be done collaboratively based on community input to empower them for these and other decisions.

- The rule that facilitators should be from the communities they teach in in order to have a grounded understanding of their community's needs should be strictly enforced. In order to ensure services and commitment, they should be paid even if they don't meet strict government qualification specifications and should be trained to develop needed capacity.

- Networking cards should be instituted for all ABEs so that assimilation into ABE centres during migration periods can be facilitated.

- Given the different migration patterns that may be observed within the same community, a balance of static and nomadic ABE schools should exist to ensure the provision of education services to all sections of the population.

- ABE structures should be established near water points where people migrate to encourage people to not have to choose between access to safe water and education.

- Encourage more students to continue beyond grade four with second cycle ABEs or with a hybrid formal and ABE system that caters to their flexibility needs.
Ethiopia has made significant progress towards reducing poverty over the last several years. However, it remains one of the poorest countries in the world, with rural areas suffering from pervasive levels of deprivation and seasonal hunger. Children are particularly vulnerable. Five underlying factors are key to understanding the causes of child malnutrition in Ethiopia: insufficient food availability; inadequate provision of a healthy environment (e.g., poor water, sanitation and hygiene); maternal well-being and quality of caring practices; women’s decision making power and control of resources; and political economy factors. Community-based, informal social assistance has a long tradition in Ethiopia. And over the past decade, there has been a growing policy momentum around social protection programmes, spearheaded by a concern to move away from a dependency on emergency food aid and, more recently, by government efforts to protect the most vulnerable from the impacts of the global food, fuel and financial crises of 2008 through a range of social protection programmes. Social protection programmes have proved to be very beneficial to households, but they need to be designed in a more nutrition-sensitive way, with a strong focus on infants, pregnant women and lactating mothers.’ (Save the Children, 2013)

Pervasive poverty and the vulnerability of a substantial proportion of the population to various sources of risk such as weather, flood and diseases require context-specific and adaptable social protection measures. According to DHS (2011) about 29.6% of the Ethiopian population lives in poverty unable to meet their basic need requirements with support through food assistance required by 10 million people in 1999/2000 and 14 million people in 2002/03. The prevalence of poverty is higher in the rural areas of the country with 30.4% of the population living under the poverty line while the corresponding figure for urban areas is 25.7%. The prevalence of poverty is also higher in the DRS regions and Tigray than the other regions. In 2010/11, the poverty head count index was the highest in Afar (36.1%) followed by Somali (32.8%) and Tigray (31.8%) (DHS, 2011). Drought risk is the major source of vulnerability for the majority of the population living in Somali, Afar and Tigray regions who have resulting high levels of food insecurity. The vulnerability of the population to shocks in DRS regions and other lowland areas is further aggravated by low infrastructural coverage, remoteness and low government capacity.

Social protection measures
Ethiopia has a long history of community level social protection mechanisms, the nature of which varies depending on the culture, religion, clan, ethnicity and other socioeconomic characteristics of the population. Vulnerable segments of the population usually get assistances in the form of grains, cash, credit, labor and other forms of support, either in kind or in cash, from extended families, clan members and neighbors. In other instances, such support mechanisms as Busa Gonofa, Edirar/Afosha are more formally structured and institutionalized. Such support mechanism cover for the social protection needs of nearly all the rural population and most of the urban population in Ethiopia. Recently, legally recognized and formal community level social protection institutions such as Community Care Coalitions (CCCs) are emerging in several parts of the country.

The Ethiopian government has established several measures to address the social protection needs of the vulnerable segments of the population. These vary from region to region and are determined by the government;
for example, woreda governments can decide the extent to which the woreda budget can be used to waive health sector user fees based on the population’s needs (UNICEF 2012). One social protection measure established by the government is the Productive Safety Net Program (PSNP) which supports food insecure households through cash or food payments for public works for able-bodied household and provides direct support transfers to households that are unable to achieve food security. Institution of the PSNP reflected the shift from a “project” approach of an individual donor to a “programmatic” aid modality in which donors finance a common programme. In this approach, government systems have taken ownership of planning and implementation processes, and aid fragmentation & inefficiency have been reduced.

The GTP aims to continue to reduce the proportion of people that are poor through economic and job creation so as to reduce the number of people that require social protection services. The agricultural development policy will do the same by increasing agricultural production and consequently increasing per capita incomes of small-scale farmers. Similarly, the disaster risk management policy will work toward the same goal by anticipating and responding to disasters more effectively (UNICEF 2012). Some basic social services, such as health and education, are provided freely by the government. The health sector development program provides sixteen free services to households including outpatient therapeutic feeding of severely malnourished children and free family planning. Also, the education policy allows for the provision of free primary education to citizens which will make people more employable and will allow them to gain higher incomes, thus reducing social protection requirements. However, such developmental social welfare policy measures have been criticized because of their limited geographical coverage, inadequate inter-sectoral linkages and coordination, weak institutional capacity and lack of clarity regarding accountability in delivering the required support (MoLSA, 2012).

THE DRAFT SOCIAL PROTECTION POLICY

Article 41 of the Ethiopian Constitution ensures the social and economic rights of every citizen of the country. A draft social protection policy has recently been developed (MoLSA, 2012). In the National Policy, social protection is considered as “formal and informal interventions that aim to reduce social and economic risks, vulnerabilities and deprivations for all people and facilitates equitable growth”.

The Policy introduces a shift from the social welfare approach to a complete framework leading to coordinated actions to protect citizens from economic and social deprivation. While the preventive actions designed to protect citizens against adverse shocks include health and unemployment insurance, the promotive actions aim to enhance assets, human capital formation and income earning capacity. The transformative actions of the policy, on the other hand, include legal and judicial reforms and budget and policy evaluations to help the nation better manage social protection (MoLSA, 2012). The Policy also provides the framework for the coordination and provision of social protection services defining the roles and responsibilities of the Government at federal, regional and local levels.

CASE STUDY: THE PRODUCTIVE SAFETY NET PROGRAM AND HOUSEHOLD ASSET BUILDING PROGRAM (PSNP/HABP)

Between 1994 and 2003, an average of five million Ethiopians each year were found to be in need of emergency assistance. Most of these people were also found to be exposed to recurrent shocks, usually those triggered by drought. These shocks exacerbated their vulnerability further by forcing them to dispose of their assets to survive. Recognizing this dilemma, the Government of Ethiopia initiated the PSNP in 2004 with the objectives of reducing household vulnerability to seasonal drought-related food insecurity, improving household and community resilience to shocks and breaking the cycle of dependence on food aid (FDRE, 2004). The approach represents an innovative attempt on the part of the Government to move away from
responding to chronic hunger through emergency appeals towards a more predictable response with predictable resources for a predictable problem. It is well aligned with the Government’s Food Security Program and the Growth and Transformation Plan (GTP) and is now the largest safety net program in Ethiopia.

PSNP provides support to vulnerable segments of the population in two ways. About 90% of expenditures are cash or food transfers given to households with able bodied members who are engaged in seasonal employment on public works (PWs). The PWs generally focus on activities such as natural resource management, rural road construction and maintenance, the development of irrigation and consumption water resources and the development and maintenance of school, clinic, and other social service infrastructure (World Bank presentation, October 2013). The food and cash transfers are used to smooth consumption and to defray food expenditures by households so that they can use such funds to maintain and improve their assets for future food security. In areas where cash is used, such funds also help to stimulate markets. The remaining 10% of expenditures are on unconditional food and cash transfers to households without able bodied members. Although the primary focus was to be persistent recipients of emergency food aid, communities were allowed to identify the most insecure households using local knowledge of household characteristics. Within PSNP, the Household Asset Building Program (HABP) provides households with access to credit and other technical assistance so that the households’ assets are protected from depletion. This aspect of the programme helps to prevent households from returning to poverty because of the effects of shocks. HABP has recently been included as an additional component of PSNP to enhance households’ food security and to allow them to graduate out of the program.

Graduation from the PSNP occurs once households are able to cover 12 months of food needs and to withstand modest shocks. Even if they fall back into a situation of food insecurity and vulnerability they can be readmitted into the program.

The diagram in Figure 28 explains how PSNP/HABP is currently designed to enable different types of progress for people at different levels of food insecurity. For ultra-poor and chronically food insecure participants, the focus is on asset stabilization through such initiatives as village savings and credit associations, intensive support and tailored products, access to food security programme (FSP) credit, extension services and the PSNP transfers for PWs on community assets. As they progress toward food security, the focus is more on asset accumulation. Once they are no longer chronically food insecure, they graduate from PSNP but continue to have access to FSP credit, extension services and more mainstream credit and other services.

In line with the decentralization of decision-making, structures responsible for food security have been established from federal down to kebele levels. The Federal MoARD with the Food Security Division under DRMFSS is responsible for the design of food security policies, strategies and plans. Each region has an office delegated to be responsible for the overall coordination, management and implementation of food security related programs and projects including PSNP. The zonal office of agriculture with the disaster prevention, preparedness and food security department is responsible for the supervision and management of PSNP related activities in the Woreda. It also compiles Woreda-level PSNP-related plans and budgets and passes them on to the regional Bureau of Agriculture. Each Woreda Office of Agriculture and Rural Development (WOARD) and Woreda Food Security Desk (WFSD) are responsible for the coordination and management of PSNP activities in their kebeles. The Woreda Food Security Task Force (WFSTF) reviews kebele annual PSNP plans and budgets, and provides assistance to kebeles in their implementation. The Kebele Food Security Task Force (KFSTF) is responsible for the planning and management of PSNP activities at kebele level through prioritizing community level needs, planning, targeting of beneficiaries and participants for public works and directing support of activities with input from the community.

Donors and development partners have been supporting PSNP/HABP with additional funds since its inception in 2005. The World Bank has led with investments of about USD 70 million for the first phase of the programme (2005-2006), USD 175 million for the second phase (2007-2009) and USD480 million for the current third phase. The four components of this third
phase are safety net in grants, drought risk financing, institutional support, and support to HABP. Planning for the next phase is currently underway. The fourth phase is expected to run for at least five years and is expected to support DRM SPIF, Social Protection, Climate Resilient Green Economy and Nutrition. Four additional donors (OCHA, UNDP, UNICEF and the German government) to the existing ten which are already collaborating will be joining the next phase of planning and implementation.

A modification since the second phase of the programme has allowed it to become a scalable social protection mechanism. When a drought results in temporary exacerbation of food insecurity conditions that are beyond what the regular PSNP arrangements can address, temporary support can come from the roughly 20% of the budget allocated as contingency funds and additional support from a Risk Financing Mechanism (RFM) designed to enable PSNP to scale up so that households can quickly receive assistance before the crisis hits the community. As shown in Figure 29, typical response time of eight months can be reduced through RFM to as little as two months.

Table 5 : Comparing the RFM and 2011 Humanitarian responses:

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<td>2011 Humanitarian Appeal – non-PSNP districts</td>
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<td>Semi-Annual Seasonal Assessment</td>
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<td>Appeal Financing sought – ongoing (as at December 2011, funding had been secured for only 94% of needs).</td>
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<td>Emergency transfers made, when resources available</td>
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<td>Risk Financing Mechanism response 2011 – PSNP districts</td>
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<td>Establishing minimum criteria for RFM to be in place; Existing PSNP caseload and transitional caseload's needs met through PSNP and contingency budgets</td>
<td>Rapid verification of needs</td>
<td>Request for release of RFM resources</td>
<td>RFM monies released for 100% of needs</td>
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In February 2011, early indications of a drought and possible crisis began to emerge in the highlands of Ethiopia. In most years, the PSNP provides transfers to chronically insecure households between February and August. In 2011, during these months, the needs of the transitory food-insecure households were met through the PSNP Contingency Budget in the usual way. However, it became increasingly clear that highland areas of the country would need support in the months preceding the November 2011 harvest, after the PSNP transfers ceased in August. Accordingly, in August 2011 after completion of a rapid verification of needs, the federal government triggered the RFM to address the transitory food needs of approximately 9.6 million people living in PSNP districts. Of these 9.6 million people, 6.5 million were existing PSNP clients. An additional 3.1 million people living in PSNP areas, who in a normal year do not need additional assistance, received up to three months’ additional assistance to ensure that they could meet their food needs until the harvest in November. All of these steps meant that Ethiopia was better prepared to manage the 2011 drought than ever before. Source: EC, 2013

Currently, the program supports around 8.3 million chronically food insecure households in 319 woredas through cash and food transfers during lean months (PSNP General Management Working Group, 2013). Benefits include: assurance of food consumption and prevention of asset depletion; stimulation of markets and enhancement of access to services and natural resources for PSNP households; and rehabilitation and enhancement of the natural environment (World Bank presentation, October 2013). Food gaps have been reduced by about 40% and consumption of non-food expenditures on services have increased in PSNP households (World Bank, 2013). Through the PWs, land productivity and quantity and quality of water have been improved. Linking with other sectors, education performance for both boys and girls and diet quality has improved in PSNP households (World Bank, 2013). More income provides vulnerable populations with a means to address relevant bottlenecks that they identify as preventing them from satisfying needs, including those which involve disruptions in access to basic services. As such, it is a mechanism which improves demand for accessing education, nutrition, health, and WASH service provision rather than supply of such services.

Such outcomes of PSNP/HABP vary across regions. While it has successfully prevented the use of damaging coping mechanisms during times of crisis and it has performed well in terms of targeting the poor, household graduation rates have been low. In the pastoralist regions in which PSNP/HABP is yet not fully operational, the safety net component of the program is successfully providing some social protection to the targeted communities but the productive component is not working well.

There are two major implementation challenges in these regions (PSNP General Management Working Group, 2013). The first concerns exclusion error and geographical coverage in targeting. In many areas of the country, this can be solved with better resource commitments and institutional incentives such that safety net coverage can be scaled up to reduce undercoverage of chronically food insecure households as the economy grows while maintaining adequate levels of beneficiary transfers and control of inclusion. Geographically, the problem is ensuring that the most chronically food insecure households are included, whether through continued targeting of hotspot woredas or by making the programme accessible in all woredas. A more significant problem of targeting related to adaptable social services among drought-prone populations is that the program only gives entitlements to those classified as poor or chronically food insecure, so pastoralist households that fall into poverty because of a drought cannot easily access PSNP entitlements.

A second problem is related to the PWs. Asset-building activities need to be identified that are relevant for pastoralists considering that they are a mobile population (Berhane et al, 2011). Since the PSNP is not fully operational in pastoralist areas such as the Somali and Afar regions, the case study focuses on how it operates in the Tigray region.

**HOLISTIC LINKAGES**

**Normal Times**

PSNP is designed to achieve long term food security among chronically food insecure households that have been identified and selected by the kebele administration. Under normal circumstances,
Figure 29: Linkage Diagram for PSNP
households in need are identified to ensure that their needs can be addressed during early action and emergency situations and cash and grain is transferred to the non-able bodied households freely. Able bodied households are expected to receive the transfers based on their labour contribution to PWs in order to build and improve the community's assets. Under the HABP, households also receive additional support in the form of credit and technical assistance so as to further diversify their income and strengthen their livelihoods.

**Early Warning and Early Action**

Early warning information related to food insecurity and drought is generated by KFSTFs and passed on to higher administrative bodies up to the federal government level. During drought years, households that are marginally food insecure and thus not included in PSNP could fall into food insecurity. In these cases PSNP can be scaled up to address the community's needs through one of two mechanisms, depending on the seriousness of the drought. During early warning phases transitory needs are identified early and PSNP is temporarily scaled up to address their food consumption and asset needs. Contingency funds are usually allocated to respond to such situations as they allow for up to 20% increase in the caseload. In abnormal drought years, contingency funds may not suffice to allow for a significant enough expansion of PSNP; the RFM may thus be used. In either case, early action response may be triggered by the regional/federal government depending on the magnitude of the problem. In addition to ensuring the food security of the households, both the contingency funds and the RFM allow households to access basic social services such as education and health.

**Extreme Events**

Under conditions of prolonged and extreme drought which may go beyond what the contingency funds and RFM are able to cover, emergency is declared by the relevant government body. In such cases food aid and other essential social services are then provided to households through external humanitarian assistance. By helping to make people more food secure and more resilient, PSNP helps to reduce the amount of such assistance that is needed.

**IMPACTS**

The immediate impacts of the program are improved food security and nutritional/health status of the community. In addition, the program ensures the conservation of the natural resources of the country and increases the beneficiaries’ access to basic social services such as education, health and clean and safe water supply.

**Adaptability**

Through the public works programmes, community members are involved in the construction and rehabilitation of various social service facilities such as schools, health posts, water points and roads. The rehabilitation of such services and the increased choice on how to address bottlenecks resulting from increased income availability enables undisrupted service access by the community. As a result, children are able to attend schools regularly and health posts are able to offer services on a continuous basis. Lack of access during times of transitory food insecurity from droughts are addressed by the contingency fund and through the faster delivery of assistance provided by the RFM. Anticipating future needs is done in two ways. By enabling increased food security of households and improving access to social services, PSNP prevents and reduces the future health expenditures that may be incurred by community members. Additionally, through the PWs programmes, PSNP reduces the future replacement costs of social service institutions. Context relevance of the PWs implemented is ensured by the fact that KFSTF members are community members. Generally, PWs are chosen by the KFSTF based on the priority level of that specific problem to be addressed for the needs of the communities.

Finally, Do No Harm is ensured by PW activities that take into consideration the promotion and expansion of local best practices. By doing so, the community mobilization activities complement rather than erode traditional coping mechanisms. Moreover, PSNP does not crowd out other informal social transfers that may be in place; rather, it makes the social transfers system work better by increasing linkages (World Bank presentation, October 2013). One perceived harm pertains to uneven timeliness of PSNP payments across regions. Late payments can result in negative coping
Intended
- Improved food security
- Improved access to social services
- Improved natural resources conservation

Adaptability
- Rehabilitation & construction of social services
- Avoids disruption
- PW are conducted based on the priority problems of the community, KFSTF are members of the community
- Reduced replacement costs of social service institutions
- Reduced health expenditure
- Complement existing indigenous practices

Resilience - Strengthening
- Improved knowledge on farming practices
- Improved knowledge on WASH, Disease Prevention
- Improved nutritional status
- Improved sanitation and hygiene
- Decision PWs made by the community
- Selection of beneficiaries made by the community
- Increased income and wealth enhances ability to growing needs

Equitability
- Targets the poorest of the poor and most vulnerable
- Female headed households are targeted

Sustainability
- Reliant on donor funding
- Problems related to graduation

Figure 30: Impact diagram for PSNP
mechanisms that undermine all potential PSNP gains (Save the Children, 2013; Slater et al, 2006; Gilligan et al, 2009 in Garde and Yablonski, 2012). Investment in capacity development and improved planning and systems are needed to ensure better timeliness. One recent improvement to such timeliness is the ability of the RFM to quickly address transitory needs from droughts.

**Resilience-strengthening**

PW projects have improved communities’ knowledge of various practices related to soil conservation, moisture conservation and tree planting as well as their awareness and knowledge about the importance of sanitation and hygiene practices. Similarly, the HABP has enhanced the participants’ knowledge and skills of improved farm management practices such as fattening, small ruminants and poultry production practices. By improving the communities’ knowledge about how current conditions affect their daily lives, PSNP/HABP improves their understanding of how changes to those conditions will impact them. In doing so, it increases their ability to adapt to future changes and shocks.

PSNP also enabled increased community access to basic services. The most important public works at village level were for soil and water conservation, health and education infrastructure, improved roads and hand dug wells to improve village water supply. PWs on schools helped to reduce overcrowding and improve the physical conditions. Construction of new health posts and health centers improved access to health care services and helped to reduce morbidity, reduce child and infant mortality and decrease HIV/AIDS incidence. The cash and grain obtained improved food security and nutritional status of households which were able to eat more food more frequently, of different types and of better quality. Construction of roads increased the supply of educational and health services as teachers and HEWs could easily commute from nearby towns to the villages (World Bank and GoE, 2009). The inclusive process of allowing communities to use local criteria to determine themselves which households should be PSNP recipients helps to empower them for further participatory decision-making that can help them to adapt in other ways. This is further enhanced by the manner in which the KFSFC represents and works with the community to prioritize the public works and when and how they should be done.

The primary benefit is the ability for recipients to improve their ability to meet current and future needs through payments for PSNP public works and the HABP that improve livelihoods and income. Households can defray food costs to invest more on assets that can help them to satisfy future livelihood and service needs. It also enables them to independently decide how to address the bottlenecks affecting their provision of basic social services, including through savings that can be used to help them to continue to afford these services during droughts and other crises. And the PSNP contingency fund and Risk Financing Mechanism further help to ensure that they can continue to afford such services during these times.

**Equitability**

The program is a form of social protection that targets the most vulnerable segments of the community including female headed households, OVCs, the elderly and disabled people. The support provided primarily addresses the food security and nutritional needs of the households and indirectly enhances the households' access to basic services, such as education and health. Through the provision of credit through HABP, PSNP further increases equitability levels within the community by increasing all households' capacity to borrow as needed to improve livelihoods and also access basic social services.

**Sustainability and cost effectiveness**

Sustainability has been questioned because of issues such as heavy reliance on donor funding and slow graduation of households from the program. PSNP has been deemed more cost-effective than other emergency operations such as food aid. While total investment on PSNP amounts to approximately 1.2% of the national GDP, it reaches close to 10% of the population (World Bank presentation, October 2013). In the 2011 Horn of Africa drought, while NGOs and UN agencies spent
about USD 169 per person (UN, 2011), the cost of the response using PSNP was only about USD 53 per person.

Cost-benefit analysis of PSNP is complicated by the diverse and sometimes long-lasting effects of the intervention. The program has improved the food security status of participant households, by reducing hunger-related loss of life and preventing asset-depletion. It has also improved beneficiary households’ access to services such as health and education. Given the size of the program, PSNP has performed well by international standards, especially in terms of targeting, high wage intensity, and low administrative costs due to the use of existing government systems and economies of scale. Cost-effectiveness of the wage transfer of PWs is 0.55 with USD1 in net wage benefits to a few insecure person for every USD1.88 spent. Cost effectiveness of providing infrastructure is 0.47 with USD1 of benefits to poor communities for every USD2.13 spent (World Bank 2011). Under the previous emergency paradigm, total spending between 1997 and 2002 on transfers to the poor in Ethiopia averaged USD265 million per year which is USD4 per capita or USD40 per beneficiary (World Bank, 2004).

KEY MESSAGES

• Social protection programs such as PSNP increase beneficiaries' capacity and income to access to social services

• If necessary complementary services such as inputs and extension are put in place, social protection programs such as HABP enable households to come out of poverty and vulnerability

• Programs such as PSNP that use PWs can also help construct and rehabilitate social service structures so that they can be accessed continuously by the community

• Transitioning from targeting hotspot woredas to maximizing inclusion of chronically food insecure households from all woredas may be appropriate as the economy grows

• The contingency fund and risk-transfer mechanism buffer people from being unable to access services because of droughts

• Investment in capacity development and improved planning and systems are needed to ensure better timeliness in all regions so that negative coping caused by dependence on payments that are late are avoided
**CASE STUDY:**

**COMMUNITY CARE COALITIONS (CCCS)**

Community Care Coalitions (CCCs) are the kebele-level community-based committees of interested volunteer individuals, groups and associations who represent different subgroups of the population and receive small transfers of cash and other resources to bridge the gaps in social protection for vulnerable people. They were first created in Tigray region in 2010 and have been taken to scale there since then. Headed by the Kebele Manager, CCCs bring together 20 to 30 teachers, Health Extension Workers, merchants, development agents, police officers and representatives of women, children and youth to discuss and address who is vulnerable in the community and how to support them through a combination of community and public resources. Identified vulnerable people include children without parental care, child and female headed households, people living with HIV/AIDS and elderly without family support.

CCCs perform social protection functions by regularly gathering information and data on beneficiaries and potential target groups, identifying and selecting beneficiaries, raising funds through community level awareness promotion and activities related to national agriculture, education and health sector strategies. Kebele level structures such as youth and women associations, cooperatives and the development army are members of the CCCs and are involved in the identification and targeting of beneficiaries. In addition, local institutions such as edir, churches and mosques are closely linked with CCCs and are involved in fund raising and awareness creation activities. The CCCs also work with HEWs and Development Extension workers in awareness creation and sensitization activities and with NGOs and other development partners such as UNICEF and WFP for the mobilization of funds and the provision of support to vulnerable segments of the community.

CCCs have two types of support mechanisms. About 40% of funds raised each year are designated for direct support for consumption and the remaining 60% is designated for productive income generation activities through no-interest loans.

**Holistic Linkages**

During normal times CCC members coordinate redistribution of cash and in-kind support from mostly voluntary contributions from better-off members of the community to those who they identify as the most vulnerable members of the community. Representatives of a community’s CCC also meet with those from neighboring communities to discuss common issues and create sharing arrangements to overcome them.

**Early Warning Early Action**

The committee members of the CCCs are usually members of the food security/early warning task force at the community level, so any information related to potential emergencies and problems in the community is reported to them for early action. Based on the information generated and the available resources, the CCCs in individual communities and across neighboring communities respond to arising problems.

**Extreme Events**

Under abnormal circumstances when the case load is beyond their capacity, the coalitions have the mandate to request additional support from NGOs, local institutions and other partners operating in their area. In one of the visited kebeles, churches and edir had taken responsibility for costs of school materials and clothing of vulnerable children. Similar assistance was provided for the costs of medication and care of elderly people and female headed households.

**IMPACTS**

**Adaptability Impacts**

By providing the needed support to vulnerable segments of the community, CCCs ensure the **undisrupted provision of social services** to community members and they **anticipate future needs** by ensuring that community members are well equipped in the future. The structure of CCCs and the fact that they represent different parts of the community ensures that the social protection services provided meet community needs in a manner that is context relevant. Kebele level structures such as youth and women associations are members of the CCCs and are involved in the identification and targeting of beneficiaries. By linking across different communities and with higher administration levels, CCCs are able to make **context-relevant** decisions.
regarding people's needs, what the relevant bottlenecks to be addressed are and consequently to take action. No harm is done toward undermining existing coping mechanisms and structures since CCCs are well linked to the already existing social protection mechanisms such as Edir in complementary ways and perform different but related functions. These local associations are members of the CCCs and provide material and financial support.

**Resilience Strengthening Impacts**
CCCs conduct a wide range of capacity building activities for their members. In partnership with other organizations and institutions, they raise awareness on various issues such as HIV/AIDS, sanitation and hygiene and child care. By building such knowledge and skills regarding how to maintain child health, nutrition and hygiene and sanitation in normal times, they are also enabling members to understand how to deal with deviations from normal conditions such that they can adapt to future changes and shocks. **Access to basic services** is improved through loans and direct transfers that support identified vulnerable people. Several OVCs and other children have had school material costs covered with these funds. Coverage of medical, sanitation and hygiene costs for many vulnerable households have also helped to improve nutritional status and health. CCCs are owned by the community with a high degree of empowering participatory decision making. Decisions on the selection of beneficiaries and the utilization of funds are all made by the community. The community also has the authority and power to elect the CCCs committee members and to decide on their mode of operation. Primarily, the CCCs serve the function of enabling community members to better meet their needs. In addition to the transfers that enable vulnerable members to address bottlenecks in meeting their basic needs, all working community members can access the interest-free loans to smooth consumption and invest toward productively improving income to meet needs for the future.

**Equitability**
Most beneficiaries are among the poorest people in their communities, such as old people living alone, single mothers with children and disabled people with insufficient support from their families. By targeting these most vulnerable members of the community to meet their needs, CCCs promote equitable access to education, health and other essential services.

**Sustainability and cost effectiveness**
CCCs are grass roots legally recognized organizations which are owned and operated by the community. They are mostly dependent on funds and resources generated by the community itself, thus minimizing their reliance on external funding. However, their reliance on voluntary community contributions implies that coalitions in extremely poor communities will inevitably be less beneficial. CCCs are also considered to be cost-effective given that they are generally run by volunteer community members with corresponding administration costs that are lower than formal organizations.

**KEY MESSAGES**
- CCCs are sustainable, cost-effective structures for identifying and delivering transfers and no-interest loans to vulnerable segments of the community
- By linking individual communities to their neighboring communities through representatives of the CCCs, common service delivery disruption problems can be identified such that sharing and other such arrangements can help to ensure continued access to services beyond an individual community's abilities.
CASE STUDY: SELF HELP GROUPS (SHGS)

Organized and facilitated by Tearfund, Self Help Groups (SHGs) are community-level saving groups formed to mobilize their own funds to invest in Income Generating Activities (IGAs) of their own choice. The groups usually consist of 15-20 community members that share socio-economic and other conditions and live in close proximity to each other. Group formation begins with developing trust in members who begin to pool whatever amounts they can as savings. As their weekly savings grow, group members start borrowing money on a revolving credit basis. The implementing partner provides various capacity building activities to help them with administration and financial management. Eventually the groups develop their own by laws and internal regulations that guide their operations. Apart from the IGAs, the groups improve access to social services to members by enabling flexible access to available funds for needs such as medication and education. SHGs also engage in awareness creation activities on matters related to HIV/AIDS, the prevention of harmful traditional practices and the protection of vulnerable children. The various SHGs have recently formed a Federation to broaden their scope of activities.

In executing their activities SHGs in towns work with various governmental organizations and NGOs. In Adama, institutions such as Adama University of Technology, Melkassa Agricultural Research Centre and Adama Vocational Technical School provide technical capacity building activities by training the group leaders in various IGA activities and business management practices. The Federation is also working with banks and microcredit agencies to increase access to credit of its members. Group members are mobilized to actively work with various offices and agencies on problems related to health, sanitation, hygiene and environmental conservation.

Apart from the normal savings made by each group member on a weekly basis, SHGs save additional funds for contingencies. These contingency funds are usually used to help group members that face difficulties which they are not able to overcome alone. For example, some of the SHGs used such funds to cover educational material costs of children and medical expenses of sick family members. Such self-help insurance mechanisms helped the most vulnerable segments of society from falling back into poverty and improved their continuous access to social services.

IMPACTS

The SHGs have empowered the members both economically and socially. The immediate impacts of the project are increased income of the households, high self esteem, gender empowerment and improved access to social services.

Adaptability Impacts

The regular and contingency funds help to ensure that group members and their families have undisrupted provision of education and health. Since SHG members independently assess their needs and make decisions and the SHGs link with each other and with higher levels of administration, activities undertaken are context relevant. Building and strengthening existing beneficiary coping mechanisms by making finances more accessible and by providing technical assistance is consistent with ‘Do No Harm’ principles.

Resilience Strengthening Impacts

Various awareness creation activities, trainings and mobilization of the members improved their knowledge about harmful traditional practices, HIV/AIDS, sanitation and hygiene, environmental protection and natural resources conservation. Learning how to better manage families and environment in normal times enables them to also think through how to adapt when conditions deviate from such normal conditions. Access to basic services is improved for both education and health. As a result of the saving groups, many families were able to send their children to school and parents that had previously dropped out of school were able to complete their education. Those who did not have access to education received some form of adult literacy education. The project also helped overcome harmful traditional practices such as denying disabled children access to education and the practice of genital mutilation. Available credit and better income from their IGAs also enabled families to better manage health care costs and to afford better medication, nutrition and sanitation. In a participatory
manner, SHG members make decisions regarding how to strengthen their own livelihoods and participate in the election of group leaders, the approval of individual business plans and credit provision and the use of the contingency funds and voluntary contributions. Most prominently, SHG members and their households were empowered to meet their current and future needs through the income generated from the IGAs. Most of the women group members interviewed indicated that the increased access to capital from loans enabled them to expand their existing income generating activities. The investments in education and health also contribute towards households’ future ability to meet changing needs.

Equitability
By empowering vulnerable community members financially, SHGs have increased equitable access to basic social services such as education and health. With the loans from the SHGs, members were able to access improved medical services and increase school enrollment, particularly those of disabled children and girls.

Sustainability and Cost Effectiveness
Although no predefined timeline is set for how long such SHGs are to benefit members, the approach seems highly sustainable. Aside from external facilitation for group formation, the system is managed voluntarily by community members in SHGs, Cluster Level Associations (10-12 SHGs form 1 CLA) and their representatives to the federation. The highly participatory nature of group formation among people with similar conditions enhances cohesion between members and helps to ensure sustainability of the group. The federation of SHGs improves their bargaining power and protects them from undesired influences of institutions and people with more power.

Although cost-effectiveness has not been studied directly, a cost-benefit analysis conducted on SHGs in Ethiopia determined that the programme has cost an average of approximately £50 per SHG member (Tsegay et al, 2013). This includes the full cost of taking the approach to scale with approximately £20 required over the first two to three years for support in SHG formation and £30 required for longer term institutional support to establish SHG association infrastructure. Additional costs may be required to support future increased level of depth, speed and consistency of development.

KEY MESSAGES

• Underlying problems that keep people poor and vulnerable can be overcome through properly designed capacity building and empowerment activities and by using their own financial means through appropriate technical support

• SHGs, CLAs and their federation can be effective means of strengthening individual and community resilience and of enabling flexible and adaptive social services on a continuous basis by enabling people to have access to funds for strengthening their income to regularly pay for services and also by enabling access to funds to help them cover costs when they are facing difficulties

Recommendations

• Safety net programs should allow for flexibility in the use of contingency funds to enhance vulnerable households’ access to basic services

• Risk Financing Mechanisms should be an integral part of social safety net programmes that enables transitory food insecurity to be addressed. Additionally, an RFM should be considered in areas not directly covered by social safety net programmes (Hobson, 2012). The quicker response allowed by prepositioned financing, capacity, institutions, plans and a strong early warning system in such an RFM would minimize service access disruptions

• The Promotion of more public works on social services such as development of water points and the rehabilitation of water schemes would enhance the continuous supply and utilization of such services

• Since beneficiaries’ ability to build resilience to drought through asset building programmes
depends on the availability of complementary services and inputs, promotion of such services is instrumental in building the long term capacity of households to overcome shocks.

- Capacity building training such as on diversifying activities and promotion of social protection activities and experience sharing between groups such as CCCs and SHGs should enhance their operation, improve buffering of social service access and build resilience to shocks. Embedding them into the EWS to utilize their enhanced strength and knowledge of how conditions are deviating from normal conditions should contribute to better early action and response.
REFERENCES


Bridges (2012), A Report on Mobility Patterns in Afder Zone of Somali Region. Islamic Relief.


CSA (2011). Demographic and Health Survey

CSA (2011). Household Income and Consumption Survey


DFID (2011) Improving the Quality of General Education in Ethiopia Business Case


EU (2012). Ethiopia: Multi-Annual Review of PBS Program

FDRE (1994). Education and Training Policy of Ethiopia


Humanitarian exchange magazine issues 53, 2012

Human Development Africa (2013) ‘Q&A: Ethiopia's Promoting Basic Services (PBS) III Program


MoA (2013). Country Program Paper to End Drought Emergencies in the Horn of Africa

MoA(2010). National Policy and Strategy on Disaster Management
MoE (2002). The Education and Training Policy and its Implementation

MoE (2011). Education Expenditure

MOE (2013). Education Statistics Annual Abstract


MoH (1993). Health Policy of Ethiopia

MoH (2004). The Health Extension Package


SNNPR (2012). Rural Potable Water and Sanitation Associations Establishment Regulation (Regulation No 102/2012)

UN (2011). Humanitarian Requirements for the Horn of Africa Drought


World Bank (2013). Aid Effectiveness: Net ODA flow to Ethiopia


World Bank, Data: School Enrollment, Primary (20 gross), viewed 24 February 2014 at http://data.worldbank.org/indicators/SE.PRM.ENRR
## ANNEX: LIST OF PERSONS CONTACTED

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<td>Temesgen Woltena</td>
<td>SHF Facilitator</td>
</tr>
<tr>
<td>Keith Etherington</td>
<td>Tearfund, Country Representative</td>
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<tr>
<td><strong>SNNPR</strong></td>
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<tr>
<td>Wassie</td>
<td>UNICEF, SNNPR WASH</td>
</tr>
<tr>
<td>Brehanu Adamu</td>
<td>IRC, Hawassa</td>
</tr>
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<td>Lealem Teshome</td>
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<td>Bikila Hika</td>
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<tr>
<td>Melese Mathewos</td>
<td>WASHCO Woredas Water Desk Head</td>
</tr>
<tr>
<td>Yihannes</td>
<td>WASHCO Woredas Education Desk Head</td>
</tr>
<tr>
<td>Bekele Hundolo</td>
<td>WASHCO and Federation chairman</td>
</tr>
<tr>
<td>Name</td>
<td>Role/Position</td>
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</tr>
<tr>
<td>Kifte Hololo</td>
<td>WASHCO member</td>
</tr>
<tr>
<td>Adanech</td>
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</tr>
<tr>
<td>Lidia Petros</td>
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</tr>
<tr>
<td>Naja Kedir</td>
<td>Beneficiary</td>
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<td>Zebura Beshir</td>
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<tr>
<td>Absisa Teressa</td>
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**Tigray Region**

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Sister Yalem Tesfaye</td>
<td>Head, Regional Bureau of Labour and Social Affairs</td>
</tr>
<tr>
<td>Muez</td>
<td>UNICEF, Tigray</td>
</tr>
<tr>
<td>Brehane</td>
<td>Tigray Regional State Bureau of Agriculture and Food Security</td>
</tr>
<tr>
<td>Dehab</td>
<td>Social Worker</td>
</tr>
<tr>
<td>Girmay Kalay</td>
<td>Meberi Tabia Manager</td>
</tr>
<tr>
<td>Member Merssa</td>
<td>Beneficiary</td>
</tr>
<tr>
<td>Mahider Tadesse</td>
<td>Beneficiary</td>
</tr>
<tr>
<td>Giday Kihil</td>
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<tr>
<td>Mehari Itay</td>
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**Somali Region**

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<thead>
<tr>
<th>Name</th>
<th>Role/Position</th>
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<tbody>
<tr>
<td>Simon Odong</td>
<td>UNICEF, Somali Region WASH Officer</td>
</tr>
<tr>
<td>Bashir Mohammed</td>
<td>UNICEF, Somali Region Nutrition officer</td>
</tr>
<tr>
<td>Johara</td>
<td>UNICEF, Somali Region WASH</td>
</tr>
<tr>
<td>Hussein Hassan</td>
<td>UNICEF, Somali Region Nutrition</td>
</tr>
<tr>
<td>Abdurahim</td>
<td>UNICEF, Somali Region Education</td>
</tr>
<tr>
<td>Bukhari Shikh Aden</td>
<td>UNICEF, Somali Region Health</td>
</tr>
<tr>
<td>Name</td>
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<tr>
<td>Adawe Warsame</td>
<td>UNICEF, Health &amp; Nutrition Officer, Gode/Afder Zones</td>
</tr>
<tr>
<td>Abdulfeta Mohammed</td>
<td>Somali Region DPPB</td>
</tr>
<tr>
<td>Ibrahim</td>
<td>Somali Region Save the Children, Education Lead</td>
</tr>
<tr>
<td>Abdi Mohammed Abdella</td>
<td>Babile Education Supervisor</td>
</tr>
<tr>
<td>Abdi Hassen</td>
<td>Likele ABE principal</td>
</tr>
<tr>
<td>Bare Abdulahi</td>
<td>PMC</td>
</tr>
<tr>
<td>Halimo Fura</td>
<td>PMC</td>
</tr>
<tr>
<td>Abdulrahman Mohammed Adan</td>
<td>Consultant to BOFED for the Somali Region Gap Report</td>
</tr>
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**Oromia Region**

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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Tesfaye Ayilew</td>
<td>UNICEF, Oromia Region Health Specialist</td>
</tr>
<tr>
<td>Banchiliyew Getahun</td>
<td>UNICEF, Oromia Region Nutrition Officer</td>
</tr>
<tr>
<td>Rebeca Demelash</td>
<td>UNICEF, Oromiya Region Health Officer</td>
</tr>
<tr>
<td>Mr. Diriba</td>
<td>Woreda Nutritional Focal Person, Arsi Negele</td>
</tr>
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4 HEWs, 7 HDA members and 2 former volunteer CHWs in 2 kebeles
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<thead>
<tr>
<th>ACRONYM</th>
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<tbody>
<tr>
<td>ACE</td>
<td>Adult Continuing Education centres</td>
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<tr>
<td>ALRMP</td>
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<td>ASAL</td>
<td>Arid and Semi-Arid Lands</td>
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<tr>
<td>ASDS</td>
<td>Agriculture Sector Development Strategy</td>
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<tr>
<td>AWD</td>
<td>Acute Watery Diarrhea</td>
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<td>BDMS</td>
<td>Borehole Distant Monitoring System</td>
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<tr>
<td>CAAC</td>
<td>Catchment Area Advisory Committees</td>
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<td>CHEW</td>
<td>Community Health Extension Worker</td>
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<td>CHW</td>
<td>Community Health Worker</td>
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<td>CNO</td>
<td>County Nutrition Officer</td>
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<tr>
<td>CSG</td>
<td>County Steering Groups</td>
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<td>CT-OVC</td>
<td>Cash Transfer program for Orphaned and Vulnerable Children</td>
</tr>
<tr>
<td>DHMT</td>
<td>District Health Management Team</td>
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<tr>
<td>DRR</td>
<td>Disaster Risk Reduction</td>
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<tr>
<td>EDE</td>
<td>Ending Drought as Emergencies</td>
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<td>FNSP</td>
<td>Food and Nutrition Security Policy</td>
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<td>FSNS</td>
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<td>HC</td>
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<td>HiNi</td>
<td>High Impact Nutrition Interventions</td>
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<td>HSNP</td>
<td>Hunger Safety Net Programme</td>
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<td>IDP</td>
<td>Internally Displaced Persons</td>
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<td>Integrated Management of Acute Malnutrition</td>
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<td>IWRM</td>
<td>Integrated Water Resources Management</td>
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<td>IYCN</td>
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<td>Kenya Food Security Steering Group</td>
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<td>MAM</td>
<td>Moderate Acute Malnutrition</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MEWR</td>
<td>Ministry of Environment, Water and Natural Resources</td>
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<td>MOH</td>
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<td>MTP</td>
<td>Medium Term Plan</td>
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<td>NACONEK</td>
<td>National Council on Nomadic Education in Kenya</td>
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<td>NDCC</td>
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<td>NDDCF</td>
<td>National Disaster and Drought Contingency Fund</td>
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<td>NDMA</td>
<td>National Drought Management Authority</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<td>NDOC</td>
<td>National Disaster Operations Center</td>
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<td>NFSNP</td>
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<td>NGO</td>
<td>Non-Government Organization</td>
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<td>NHIF</td>
<td>National Hospital Insurance Fund</td>
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<td>NNAP</td>
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<td>NWP</td>
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<td>PPIP-WSS</td>
<td>Pro-Poor Implementation Plan for Water Supply &amp; Sanitation</td>
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<td>PRRO</td>
<td>Protracted Relief/Recovery and Resilience Operations</td>
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<td>SAM</td>
<td>Severe Acute Malnutrition</td>
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<td>Scaling Up Nutrition</td>
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<td>SWG</td>
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<td>TIVET</td>
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<td>WAB</td>
<td>Water Appeal Board</td>
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<td>WASH</td>
<td>Water, Sanitation and Hygiene</td>
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<td>WASREB</td>
<td>Water Services Regulatory Board</td>
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<td>WESCOORD</td>
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EXECUTIVE SUMMARY

The ASALs of Kenya constitute approximately 80% of the country’s total land mass and are home to about 40% of the country’s population and 70% of the country’s national livestock herd. Communities in the arid lands are mostly mobile pastoralists while the livelihoods of those in the semi-arid lands depend on a combination of agro-pastoralism, agriculture, business and tourism. The ASALs are particularly vulnerable to droughts, which are a significant cause of displacement and loss of lives and livelihoods in these areas. The drought vulnerability of these populations is mostly due to: the dependency on rainfall, which is low and erratic, for food security and livelihoods; the insecurity and conflict over resources; and finally the low levels of infrastructure and low access to basic services and information on rain patterns, early warning systems and climate change. Historically the ASALs have not received the same attention by the government in terms of investments in infrastructure development and the provision of basic social services. As a result, access to water, health, roads, ICT and other services is lower in the ASALs compared to the national average. The area is prone to conflicts due to a lack of diversification in income and high competition for resources. Recognizing all these factors, the Government of Kenya has recently made conscious efforts to further develop these regions in order to bridge the gap with the rest of the country.

Nutrition Sector: Reviewed policy documents emphasize the importance of involving vulnerable groups such as women of reproductive age, children and people with disabilities in hard to reach areas such as the ASALs and recognize that malnutrition remains a major threat to the survival, growth and development of children. Integrated Management of Acute Malnutrition (IMAM) has been adopted by the government to implement High Impact Nutrition Interventions (HiNi). However, government investments in nutrition remain too low (2% of the overall health budget) to meet the needs of the country. The Surge Capacity Model for IMAM which is currently being implemented by Concern Worldwide in Kenya’s ASALs is reviewed as a case study. This model allows health facilities to monitor and record thresholds for SAM, MAM, pneumonia and diarrhea and to consequently develop a response package which includes measures to make sure the facility keeps operating even when conditions change from the normal situation. The surge capacity model increases the adaptability of the systems in place and has resilience strengthening impacts by increasing the capacity of the health facility and county health management teams to adapt and provide services even during a crisis. When implemented well and with good coverage, it was found that the surge capacity model is also able to contribute to drought early warning.

WASH Sector: In the water sector, government policies recognize that accessibility to improved water and sanitation in the ASALs is below that of rural areas and the national average and that distances between the facilities is greater than the national average. Furthermore, the study reports that there is inadequate knowledge on safe hygiene and disease prevention practices in the ASALs and that the link between hygiene and water related diseases such as cholera and AWD is poorly recognized. This results in high incidence of water related illnesses that further increase during times of drought. As such, existing government policies, strategies and goals aim to increase overall access to improved water and sanitation facilities with a vision of attaining 100% access by 2030. The borehole distant monitoring system is reviewed as a case study. This system allows communities to monitor and control the water services provided by the communities’ water user associations (WUAs) or service providers. Having a borehole monitoring system allows the community to manage the water system in a way that maintains the provision of water and water-related services to facilities that provide basic services even in times of crisis or increased demand. The WUAs regularly collect data on the water level available for use and are thus able to make informed decisions in a participatory manner. This involves identifying early warning signs and taking measures, such as water rationing, during times of drought. This monitoring system has been successful in increasing vulnerable communities’ resilience to shocks and their adaptability in times of crisis. Although the system has been found to be sustainable as it is managed by the community that is using it, its cost-effectiveness has yet to be confirmed by further research.
Education sector: Despite the various reforms undertaken in this sector, access to education in the ASALs remains a challenge. Learning facilities in the ASALs are inadequate with no university and few training colleges and technical institutes. School dropout rates are high and a much smaller proportion of students manage to complete their primary education compared with the national average. These problems are compounded by the mobile nature of the ASAL populations which complicates uninterrupted education provision. Recognizing these issues, the government has developed a Policy Framework for Nomadic Education which focuses on promoting education and increased access for nomadic populations in the ASALs. Several measures can be adopted to cater to these special needs including the use of mobile schools, boarding schools and distance learning. A case study of the education system provided by the Diocese of Turkana shows how the government and other organizations can deliver education to nomadic populations that are mobile and migrate from one place to another. By studying the migratory route of the community, the organization creates a water point in an area suitable for a school which makes the area attractive for settling down. A school is then built and a teacher posted, who engages in community awareness raising activities on the benefits of education. Adult education on drought preparedness, animal health and climate change is also provided thus increasing the resilience, adaptability and knowledge of the pastoralist communities. This education model has been found to be highly sustainable and cost-effective. However the report finds that more research should be carried out to explore the effects of splitting families for the continuous provision of education services.

Social protection sector: Like in the basic social service sectors, the ASALs lag behind the rest of the country in social protection. Social protection programs in Kenya include non-contributory programs that focus on health and nutrition, agriculture, education, relief and recovery and cash transfers. WFP’s Protracted Relief/Recovery and Resilience Operations (PRRO) is examined as a case study. This social protection program is a food/cash for work program: by working on specific assets such as water pans, irrigation schemes and boreholes, community members are paid in either food or cash depending on the state of the market. The report found that this program increased the resilience of the communities involved by expanding their knowledge and skills regarding how to build and maintain community assets and by increasing households’ income and allowing them to make informed decisions on the purchase of other basic social services such as education and health care. A recommendation is made for increased research on programs suitable for pastoralists and for more creative ways of including vulnerable community members that cannot perform physical work be sought.
GEOGRAPHY

Kenya is a sub-Saharan country with a population of 38.6 million people. Kenya’s climate is composed of two rainy seasons, long and short, and two dry seasons, hot and cool. The country’s landscape covers 583,000 sq. km and is divided into five broad categories of the Rift Valley, the Lake Victoria Basin, the Coastal Margin, the Savannah Lands and the Highlands.

Soil distribution in Kenya is based on the landscape and can be divided into four broad categories of humid, semi-humid, semi-arid and arid. The Savannah lands landscape covers most of the Arid and Semi-arid lands and will be the focus of this report.

KENYA DISASTER AND VULNERABILITY PROFILE

Kenya is susceptible to disasters triggered by both natural and anthropogenic hazards. The confluence of insecurity between areas prone to both conflict and natural hazards exacerbates overall vulnerability to lacking service access since people often can’t find work or services there.

Disasters triggered by natural hazards are varied and based on hazard exposure factors such as the geographical location and landscapes of an area and vulnerability factors that result in greater disaster impacts.

Landslides occur frequently in Kenya during the rainy seasons in the hilly and mountainous highlands and central areas of Kenya. Human exploitation and degradation of the environment contributes to landslide vulnerability. Cutting trees for lumber, firewood, charcoal and other uses and such pressures from increasing populations as cultivation, settlement and road and pipe construction destabilize soil and rocks such that they are susceptible to landslides. Socio-economic impacts of landslides include displacement, loss of life and destruction of land, crops and infrastructure.

Floods are experienced during the rainy seasons in the river basins and coastal plains of the western Lake Victoria area and coastal Indian Ocean area. Floods are also experienced in the slum areas of urban centers such as Mombasa and Nairobi during the rainy seasons due to poor drainage. Flash floods occur in the ASALs due to seasonal rivers and loose soil composition. Factors contributing to flood vulnerability include settlement and cultivation in flood plains, construction of non-flood resistant houses and lack of flood-prevention structures such as levees. Socio-economic impacts of floods include loss of life due to drowning or from water related diseases; displacement; destruction of property, crops and infrastructure such as roads and communication lines; and water-related diseases such as malaria, cholera and diarrhea from stagnation of water and contamination of water sources such as wells.

Droughts in Kenya are mostly experienced in the ASALs and are a significant cause of displacement and loss of lives and livelihoods in these areas. They are caused by a severe reduction of underground water and soil moisture leading to insufficient drinking water for people and livestock and failure of pastures and crops. The severe reduction is caused by multiple failed rainy seasons in which below average or no rainfall is received. Drought vulnerability factors include (i) settlement in the ASALs where rainfall is low and erratic; (ii) dependency on rainfall for food security and livelihoods; (iii) insecurity and conflict over resources
that may cause certain populations to live in insecure areas where they can't get services or in secure areas that may not have grazing land or water; (iv) marginalization processes that result in low levels of infrastructure; (v) displacement and (vi) low access to food, water, other basic services and information on rain patterns, early warning systems and climate change. Socio-economic impacts of drought include (i) food insecurity, malnutrition and poor health from (a) lack of food, water and livelihoods, (b) food price hikes and (c) animal diseases and (ii) conflict over diminished resources.

KENYA’S ARID AND SEMI-ARID LANDS (ASAL)

Kenya’s arid and semi-arid lands are areas that receive rainfall of 0 – 300mm and 300 – 600 mm a year respectively (IFAD). Kenya’s ASALs constitute approximately 80% of the country’s total land mass and are home to approximately 40% of the country’s population and 70% of the country’s national livestock herd (Government of Kenya 2012a).

The economy of the arid lands is dominated by mobile pastoralism while that in the semi-arid lands is a mixture of agro-pastoralism, agriculture, business and tourism.

Most of the ASALs are located in the northern part of Kenya. This area has been neglected since Kenya was a colony. Called the Northern Frontier District, northern Kenya was used as an area that separated Kenya from hostile neighbors and did not get the same attention for development of infrastructure and access to basic services as other districts in Kenya. Access to water, health, good roads, ICT and other services is lower in the ASALs than the national average. A lack of diversification in income, competition for resources and certain traditional customs have made the area prone to conflicts. Resulting insecurity has reduced its access to a work force that could contribute to infrastructure
and development and have made the communities in northern Kenya more difficult to access. But the government has recently made conscious efforts to correct the past and to develop northern Kenya to a level of development similar to the rest of Kenya.

The focus of this report will be on policies, approaches and good practices that enable provision of basic services to communities in the ASALs in a flexible and adaptable manner considering the prevalence of droughts and the mobility and vulnerabilities of the populations living in these areas.

POLICIES AND SERVICE DELIVERY
Trends and Reforms

In 1993, the government of Kenya created the Relief and Rehabilitation unit and the Emergency Drought Recovery Project to address the consequences of frequent droughts in the country. In 1996 the project was replaced by the Arid Lands Resource Management Project (ALRMP). In 1998, the government formed the National Disaster Operations Centre to monitor disaster incidents on a 24-hour basis and to mobilize responses to areas affected by disasters. In 2002 the government developed the National Action Plan for Combating Drought and Desertification, which committed the government to developing policies and projects that end desertification. In 2003 the ALRMP was expanded from covering 10 arid districts to covering 22 arid and semi-arid districts. In 2004 the Draft National Disaster Management Policy was developed and in 2005 the Draft National Policy for the Sustainable Development of Arid and Semi-Arid Lands (ASAL) of Kenya was developed. In 2011, the Vision 2030 development strategy for Northern Kenya and other dry lands was finalized. In the same year, 2011, the National Drought Management Authority (NDMA) was established as a statutory body established to succeed the Drought Management Directorate of the ALRMP.
POLICY DOCUMENTS AND SERVICE DELIVERY (APPROACH) MECHANISM
National Policy Documents

Policy documents at a national level write about the government’s role in disaster risk reduction and management with promotion of equality and good monitoring systems as cross cutting issues.

Constitution of Kenya 2010
The Constitution of Kenya 2010 promotes the inclusiveness, equality, non-discrimination and protection of marginalized communities such as those living in the ASALs. The constitution further writes that the government shall promote equitable development of the country and put in place affirmative action programs designed to ensure that minorities and marginalized groups have access to basic services such as water, roads, health facilities and electricity.

The constitution states that disaster response and management of a national disaster is the function of the national government while that of a local disaster is of the county government. Functions of preparedness, disaster risk and contingency funds are devolved to the county level.

The Constitution and nutrition
The right to food as a basic right and the right of every Kenyan to be free of hunger is based on an explicit constitutional requirement that every Kenyan should be free of hunger at all times and that the right to food is a basic human right of every Kenyan. Under articles 43 and 53, the constitution respectively states that “The Government shall ensure that every Kenyan has a right to be free from hunger, to have adequate food of acceptable quality, uninterrupted supply of clean and safe water in adequate quantities” and “Every child has a right to basic nutrition, shelter and health care”.

The right to food is derived from the International Covenant on Economic, Social and Cultural Rights (OHCHR) which as of May 2012 had 160 state parties whose governments have committed to half the number of the hungry and malnourished from 840 to 420 million by 2015. Kenya has showed commitment to this right by ratifying the covenant and making it the policy of the government that all Kenyans, throughout their life-cycle shall at all times enjoy safe food in sufficient quantity and quality to satisfy their nutritional needs for optimal health.

The Constitution and WASH
The Constitution of Kenya says that every person in Kenya has a right to reasonable standards of sanitation and to clean and safe water in adequate quantities (Government of Kenya 2010a). The constitution also states that the state shall put in place legislative, policy and other measures to achieve the progressive realisation of this right and to do so within available resources.

The Constitution and Education
The Constitution of Kenya 2010 makes it clear that every child has a right to free and compulsory basic education and access to affordable tertiary education, training and skills development. The constitution further states that the state shall provide education of high quality to all and ensure access to basic education to all including persons with disabilities who may access education through sign language, braille or other appropriate mean of communication, materials and devices that overcome constraints arising from a disability.

The Constitution and Social Protection
The Constitution of Kenya 2010 explicitly makes social security a basic right of every Kenyan alongside other rights such as food, water, shelter and education. Article 43 (1) states that “Every person has a right to social security”. It further says that the state shall provide appropriate social security to persons unable to provide for themselves. Some of the persons named include, persons with disability, youth, minorities and marginalized members groups and the older members of the society.

Vision 2030
The Vision 2030 is a national long-term development blueprint to create a globally competitive and prosperous nation with a high quality of life by 2030, with an aim to transform Kenya into a newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment. Though not directly addressing the issues of disaster management or risk
reduction, the Vision 2030 addresses development issues that have a direct impact on disasters, especially drought, such as food security, health and nutrition.

The vision is anchored on three key pillars; economic, social and political governance. Agriculture is in the economic pillar and two if its four flagship projects are setting up five livestock disease-free zones and the development of irrigation projects in the ASALs. Under the social pillar the vision is to establish a voucher system program in the five poorest districts of Kenya and to construct and equip at least one boarding primary school in each constituency in the ASALs. Under health, the vision is to fast-track the implementation of the community strategy by training Community Health Workers (CHWs) and to rehabilitate rural health facilities to offer integrated and comprehensive healthcare among other projects.

**Vision 2030 and Nutrition**

Vision 2030 discusses nutrition in the agricultural and health sectors in the economic and social pillars. It states that the government will engage in flagship projects that will improve food security under the agriculture sector in the economic pillar and nutrition under the health sector in the social pillar. Under health, some of the projects are fast-tracking the implementation of the community-health strategy by training CHW and establishing a community-based information system. The strengthening of the implementation of the community health strategy, including the training of CHWs is crucial for the successful implementation of Integrated Management of Acute Malnutrition (IMAM).

The stated goal of the February 2009 Kenya Draft National Policy for Disaster Management is the creation of a safer, more resilient and more sustainable Kenyan society. The policy details a code of conduct to guide stakeholder behaviour in the five elements of disaster management, prevention, mitigation, preparedness, response and recovery. It also proposes the establishment of the National Disaster Management Authority (NDMA) to coordinate the work and relationships of drought management stakeholders and the National Disaster Management Resource Centre to monitor, collect and collate all relevant information and data pertaining to early warning systems and information on disasters, to maintain a hazard mapping and disaster monitoring database and to collect evaluation and impact assessment reports on disaster response to be used for sharing of lessons learned and good practices.

**Vision 2030 and WASH**

Vision 2030’s objective for water and sanitation is to ensure that improved water and sanitation services are available and accessible to all (Government of Kenya 2011a). The Medium Term Goals for 2012 for Vision 2030 are to increase access to safe water and sanitation and to reverse the declining water availability per capita.

The 2012 water supply goal is to increase water access in urban areas to 72% and in rural areas to 59% (up from 60% and 40% respectively). The 2012 sanitation goal is to attain 70% and 65% access to safe sanitation and 40% and 10% sewerage access in urban and rural areas respectively. The vision also has a 2012 Water Resource Management goal of increasing regular monitoring of water resources to 70% and implement sub-catchment management strategies.

**The Vision 2030 and Education**

Kenya’s Vision 2030 states that to attain the vision of transforming Kenya into a highly industrializing middle-income country it is crucial to create and improve entrepreneurial skills and capacities. The policy has education and training under the social pillar with flagship projects such as recruitment of 28,000 teachers by 2013, establishment of a voucher system for education in Kenya’s five poorest districts, establishment of a computer supply program and centers of specialization and construction and rehabilitation of at least one boarding primary school in each constituency in the ASAL.

The second Medium Term Plan (MTP) for the vision 2030 covering the period 2013 – 2017 includes additional projects such as recruiting more teachers for the ASAL to attain the desirable ratio 1:25 and 1:40 for primary and secondary school ratios and improving 100 mobile and 600 boarding schools. Other projects include establishing 500 Adult and Continuing Education (ACE) centres in ASALs counties as well as establishing and making operational a National Council on Nomadic Education in Kenya (NACONEK). The plan also sets as a goal to achieve the MDG # 2 of 100% national enrollment rate for primary education by 2015 aligning to the MDGs.

**Vision 2030 and Social Protection**

Kenya’s vision 2030 suggests that Kenya cannot become
a middle-income, highly industrious country by 2030 unless the government focuses on reducing the poverty level of its people. Social protection is under the social pillar of the vision whose aim is to create a “just and cohesive society with social equality in a clean and secure environment” and the objective to “invest on the people of Kenya in order to improve the quality of life for all Kenyans by targeting a cross-section of human and social welfare projects and programs. The vision suggests that reduction of poverty and equity is the key to achieving middle-income status and further emphasizes that need to pay greater attention to the unique needs of the people living in the ASALs who have the highest level of poverty in Kenya. Some of the flagship projects include affirmative action and gender mainstreaming, transformation of the NSSF and the creation of various funds for people with disabilities, women and youth.

NATIONAL LEVEL SERVICE DELIVERY (APPROACH) MECHANISM

Disaster risk reduction, management and response activities are coordinated by the National Disaster Coordination Committee (NDCC) housed at the Office of the President. Under the NDCC are four bodies tasked with specific disaster-related activities. The National Disaster Operations Center (NDOC) is responsible for monitoring, coordinating, mobilizing and responding to disasters. To raise the profile of drought, drought related activities have been assigned to the National Drought Management Authority (NDMA). The department of refugee affairs is responsible for disaster events in refugee camps or associated with the movement of refugees. The Humanitarian Coordinator (HC) is the link between the government and its humanitarian partners such as the UN agencies and NGOs.

ASAL DROUGHT-RELATED POLICY DOCUMENTS

National Policy for the Sustainable Development of Northern Kenya and other Arid Lands

The National Policy for the Sustainable Development of Northern Kenya and other Arid Lands addresses the regional inequality experienced by Northern Kenya and the economic, environmental and cultural wealth that the area has. The policy emphasizes that unless the regional inequality is addressed, the potential of the area will never get realized. It addresses three distinct challenges faced by Northern Kenya and other arid lands: (i) how to close the developmental gap between Northern Kenya and the rest of the country, (ii) how to protect and promote the mobility and institutional arrangements which are essential to productive pastoralism and (iii) how to ensure food and nutrition security across the ASALs.

Vision 2030 Development Strategy for Northern Kenya and other Arid Lands

The vision statement for the Vision 2030 Development Strategy for Northern Kenya and other Arid lands is a “secure, just and prosperous Northern Kenya and other arid lands, where people achieve their full potential and enjoy a high quality of life." With the long term dream of transforming Kenya into a globally competitive and prosperous nation with a high quality of life by 2030, the country has recognised the unique needs of Northern Kenya and has developed a vision document focusing on the specific needs of the area. The policy realizes that Northern Kenya and other arid lands are remote with rudimentary transport, energy and communication systems, has a dispersed and mobile population that calls for innovation and flexibility in service provision mechanisms and that the population lives in an arid environment and is vulnerable to drought and the impact of climate change and has a distinct livelihood system; pastoralism.
The objectives of the country paper are:

i. Investing in the foundations for development in the ASALs, as articulated in the Kenya Vision 2030,

ii. Developing an effective institutional framework to sustainably manage drought and its consequences,

iii. Enhancing the adaptive capacities of communities to the effects of climate variation through the application of relevant ecosystems management approaches and

iv. Performing comprehensive monitoring and evaluation of implementation and regular assessment of the progress towards achievement of the objectives.

To achieve the objectives above, the government says that it must manage drought emergencies and mitigate their effects through comprehensive and coordinated implementation. The government must also re-focus investment in the ASALs towards measures that will support recovery in the short to medium term and strengthen drought resilience and adaptive capacity to climate change.

The programming framework details six areas upon which the government will focus as the foundations for building and strengthening resilience to end emergencies from drought. These are:

- Peace and human security
- Humanitarian Preparedness
- Climate-proofed infrastructure development
- Building human capital
- Sustainable livelihoods that are adaptive to climate change
- Multi-sector and multi-stakeholder coordination

A five-year budget of KSh 226.721B has been allocated to the EDE program with each strategic area getting its own allocation as per activities planned. Infrastructure development has the highest allocation of KSh107.062B and the lowest allocation is to humanitarian preparedness with KSh 2.192B. As per the latest EDE document dated August 2012, total budget commitment was at KSh 67.3B with humanitarian preparedness fully funded and infrastructure development funded at KSh 15.3B.

**Core functions of the NDMA**

With a mandate to establish mechanisms which ensure that drought does not result in emergencies and that the impacts of climate change are sufficiently mitigated, the NDMA has four main responsibilities:

i. Coordination of stakeholders of drought related activities,

ii. Development and implementation of drought risk reduction activities,

iii. Rapid reaction to drought early warning signs and

iv. Information and knowledge management of drought information. NDMA is the custodian of the NDDCF.
Figure 33: Draft Humanitarian Coordination in Government of Kenya
National Disaster and Drought Contingency Fund (NDDCF)

The NDDCF is a multi-donor fund with contributions from the government of Kenya and its developmental partners. The fund allows for timely disbursements of funds in response to drought early warning systems to prevent or mitigate the impacts of a drought.

DROUGHT RELATED SERVICE DELIVERY

Coordination of drought related activities is done by the NDMA through the Kenya Food Security Meeting (KFSM) and the Kenya Food Security Steering Group (KFSSG). The KFSM is chaired by the Government of Kenya's Office of the President and has representation from various ministries that are involved in food security activities.

The KFSSG is chaired by the NDMA and has representation from seven Sector Working Groups (SWG): Agriculture and Livestock, Health and Nutrition, Water and Sanitation, Education, Disaster Management, Cash Transfer and Food Aid Estimates. The KFSSG structure is mirrored at a sub-national level, with County Steering Groups (CSG) chaired by county NDMAs which have county sector working groups similar to those at a national level.

The CSGs are the link between the national and community structures that facilitate the flow of information and guidance between the two. Community groups are responsible for mobilizing resources, preparing disaster risk-reduction plans and implementing drought management projects.

The data and information sub-committee has a major role in collecting and distributing data related to a drought including any data that may show early warning signs of a drought.

NDMA Drought Monitoring System

The NDMA has a drought monitoring system aimed at providing relevant and timely information about drought and other stresses in the ASAL during both drought and non-drought times. During non-drought times, the system is in place to act as an early warning system to:

- provide information on changes in the local economy
- identify sources of local stress and advice on action in case there are changes.

During a drought, the system plays the essential role of providing information on whether the response to drought is fair and based on actual needs.

Data used in monitoring drought is collected through household surveys, community observations and community meetings. Data collection tools include the quantitative household questionnaire administered monthly to 30 randomly selected households, the qualitative community observation form administered monthly from the observation of three randomly selected sample communities and the quarterly community survey which reports information received from interviews of community meetings of sample communities.

Data is collected about the measurable or observable drought indicators in the table below that can show the onset or effects of a drought (Government of Kenya NDMA 2012b). It is collected by field monitors placed in certain predetermined sites, analysed and interpreted.
The Authority shall develop clear evidence-based criteria for both the contingency fund and other financial sources appropriated to deal with the drought, and shall support drought related policy formulation.

The Authority shall manage drought management information, and shall operate an efficient drought early warning system.

The Authority shall coordinate the preparation of the risk reduction plans, undertake risk reduction awareness and education, and coordinate the implementation of risk reduction activities.

The Authority shall coordinate the preparation of contingency action plans, and shall coordinate the implementation of drought mitigation.

The Authority shall establish, coordinate structures for drought management.

Information received from the monthly analysis of drought indicators is also communicated to the public through a colour-coded flag system that represents the drought status of the county. The flag system is comprised of four colours that are flown throughout the county: green flags representing a normal phase, yellow for an alert phase of a drought, orange for an alarm phase and red for an emergency phase of a drought.

Each drought phase is accompanied by dissemination of messages that the community should undertake to prepare for, mitigate and respond to a drought. NDMA has also introduced the ambassador's club, a primary school drought preparedness club used to promote drought preparedness to students and their immediate community.

Figure 35: Four primary functions, with evidence at their core
### POLICY DOCUMENTS: ASALS AND ACCESS TO BASIC SERVICES

Provision of basic service has been defined as services that contribute directly to poverty reduction or have a social impact such as education, health, water supply and sanitation, communication, rural roads, agricultural extension, labor, or social welfare (REGLAP 2010).

The National Policy on Sustainable Development of Northern Kenya and other Arid Lands of Kenya states that, for example, only 5% of households in Samburu have access to credit compared to a 30.7% national average, that average enrollment in primary education is 51% compared to a 91% national average, toilet coverage is 19.1% compared to a 83.3% national average and the average distance to a health facility is 52km compared to a 5km national average. The policy discusses in detail the commitment of Kenya to bridge such inequalities by concentrating on certain interventions per sector and calls for innovation and flexibility in basic service provision mechanisms for populations living in Northern Kenya due to their unique characteristics and vulnerabilities.

The Vision 2030 Strategy for Northern Kenya and other Arid lands and the Ending of Drought as Emergencies Country paper also discuss similar issues of inequality and the government's commitment to bring equality of basic services to people living in the ASALs.

As a crosscutting issue, all documents discuss the challenge of delivering social services to the people living in the ASALs. This is attributed to the fact that the communities there are mobile and dispersed. Mobility of the communities is due to pastoralism which is a lifestyle defined by the production of

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**Table 6: Measurable or observable drought indicators**

<table>
<thead>
<tr>
<th>HOUSEHOLD SURVEY</th>
<th>COMMUNITY OBSERVATION</th>
<th>QUARTERLY COMMUNITY SURVEY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Livestock Production Indicators</td>
<td>1. Access to Water Sources</td>
<td>1. Meeting with Men</td>
</tr>
<tr>
<td>• Livestock Births</td>
<td>2. Population Numbers</td>
<td>• The Season (hot dry, long rains, cool dry, short rains)</td>
</tr>
<tr>
<td>• Livestock Deaths</td>
<td></td>
<td>• Migration Routes</td>
</tr>
<tr>
<td>• Livestock Sales</td>
<td></td>
<td>• Pasture and Browse Conditions</td>
</tr>
<tr>
<td>• Livestock Prices</td>
<td></td>
<td>• Water Supplies</td>
</tr>
<tr>
<td>• Livestock Slaughter</td>
<td></td>
<td>• Conflict and Insecurity</td>
</tr>
<tr>
<td>• Livestock Milk Yields</td>
<td></td>
<td>• Livestock Disease</td>
</tr>
<tr>
<td>• Herd Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Agricultural Production Indicators</td>
<td></td>
<td>2. Meeting with Women</td>
</tr>
<tr>
<td>• Crops Cultivated</td>
<td></td>
<td>• Food Consumption</td>
</tr>
<tr>
<td>• Agricultural Sales</td>
<td></td>
<td>• Cereal Sources</td>
</tr>
<tr>
<td>• Agricultural Prices</td>
<td></td>
<td>• Income sources</td>
</tr>
<tr>
<td>3. Pastoralist Welfare Indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Terms of trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Milk Consumption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Nutritional Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Relief Distribution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Drought Field monitors Handbook, September 2012
Figure 36: NDMA Drought Coordination Mechanism
livestock in rangelands, the movement of livestock and the communal management of natural resources.

These documents discuss how the biggest challenge in delivering basic social services to the pastoralists is figuring out how to protect and promote mobility and customary institutions and also delivering services to them, which have traditionally been delivered from a sedentary point such as a health or nutrition center or school.

The delivery system of social services to the pastoralists is further tested during a drought where the need for these services is increased but the people in need may be unable to access these services due to distance, or the lack of awareness of these services.

As such, the delivery mechanisms of these social services should be adaptable and flexible so that the system is able to deliver services to a mobile, dispersed community that is vulnerable to an ever-changing environment affected by regular drought and climate change.

**INVESTMENTS Equalization Fund**

In article 204 of the 2010 Constitution of Kenya, the government is mandated to set up an equalization fund budgeted at one half per cent of all revenue collected by the national government each year. The equalization fund is to be used to provide the basic services of water, roads, health facilities and electricity to marginalized areas with an effort to provide these services at the same level as in the rest of the country.

According to information released by the Commission on Revenue Allocation, the 2012 / 2013 equalization fund had KSh 3B based on KSh 609B revenue. The money has been allocated to 14 counties with Turkana County receiving the largest share of Sh271 million and Lamu County receiving the least amount of Sh186 million. All counties receiving money from this fund are found in the ASALs.
The Horn of Africa, including Kenya, is susceptible to seasonal and recurrent droughts whose intensity is progressively increasing. Droughts affect malnutrition because they cause a deterioration of livestock body conditions. A reduction in the number of lactating female animals results in a decline in milk and meat available in markets for consumption, resulting in an increase in milk and meat prices. When food in the markets gets scarce, poor households are unable to access food from the markets and at the same time food received from livestock such as milk and meat may reduce or disappear. A reduction in food from livestock places households at risk in malnutrition and may also reduce their household income due to lack of or reduced sales from surplus milk and meat. During the most recent drought experience by Kenya in 2011, food prices went up by 58%, putting 3.2 million people at risk of malnutrition (UN-OCHA 2011).

Droughts also cause an increase in distances travelled to water points, a reduction in water points and grazing land for livestock and deterioration in hygiene due to scarcity of clean water for drinking and for hygiene purposes. An increase in water-related disease such as cholera and diarrhea may also cause an increase in malnutrition during a drought.

Basic Services
Increases in malnutrition rates due to a drought cause an increase in attendance at nutrition and health centers, community outreaches, growth monitoring and nutrition screenings. During an extreme drought, schools close due to lack of water and food for the students. Also, during

an extreme drought, people migrate in search of food and water causing a need for basic services provision to Internally Displaced Persons (IDPs) or refugees. Such basic services include provision of shelter, nutrition, WASH and education and health including services that prevent the occurrence and spread of diseases associated with crowding such as cholera, measles and diarrhea.

POLICIES
Trends and Reforms
Kenya's first food policy developed in 1981 and reviewed in 1994, set the objective of “supporting self-sufficiency in major foodstuffs while ensuring equitable distribution of food of good nutritional value to the population” The Nutritionists and Dieticians Act was subsequently passed in 2007, requiring all dieticians and nutritionists to be registered with the Kenya Nutritionists and Dieticians Institute (KNDI) in order to legally practice. The National Food and Nutrition Security Policy (NFSNP) and National Food Security and Nutrition Strategy (FSNS) were developed in 2008 and finalized in 2011. The policy was developed in line with already existing and related strategies such as Kenya Vision 2030, Kenya's Agriculture Sector Development Strategy (ASDS ) (2010-2020), Public Health Act and the Breast Milk Substitutes Control Bill (2009). A new Constitution of Kenya which recognizes that every person has the right to food of sufficient quantity and quality was later passed in 2010.

POLICY DOCUMENTS
Protection of the vulnerable and utilization of monitoring and evaluation systems are cross cutting components covered by all nutrition policy documents.
On nutrition, policy documents in Kenya emphasize the importance of involving vulnerable groups such as women of reproductive age, children, people with disabilities and people, especially women and children, in hard-to-reach areas such as the ASAL of Kenya. On children, the policies state that malnutrition remains a major threat to the survival, growth and development of children in Kenya. Poor nutrition in pregnancy, infancy and early childhood increases the risk of infant child morbidity and mortality and diminished cognitive and physical development marked by poor performance in school.

On monitoring and evaluation, policy documents stipulate that nutrition monitoring and evaluation systems should be strengthened to enhance benefits of a standardized M&E system for nutrition. Such a system is crucial for measuring program performance and evaluating the impact of nutrition interventions. In Kenya, the nutrition system is integrated into the existing health information system and is comprised of routine data collection, recording and reporting as well as periodic nutrition surveys. The policies recognize weaknesses in the systems mostly due to incomplete reporting and lack of awareness among health care workers and data reporters on how to use the system and data collected as early warning systems.

### The Food and Nutrition Security Policy (FSNP)

FNSP was finalized in 2011 and is aligned to Kenya's Constitution of 2010 and Vision 2030. The FNSP reiterates the government's commitment to keep its citizens free of hunger and the right of every Kenyan to food of adequate quantities and qualities. The FNSP's broad objectives are to achieve good nutrition for optimum health of all Kenyans, to increase the quantity and quality of food available, accessible and affordable to all Kenyans at all times, and to protect vulnerable populations using innovative and cost-effective safety nets linked to long-term development.

The Kenya Health Sector Strategic and Investment Plan's (KHSSP) goal is accelerating attainment of health impact goals. A specific objective is to ensure adequate nutrition for the whole population through avoiding and managing over, or under nutrition. Specific nutrition areas named in the plan include nutrition education and counseling, community based growth monitoring and promotion, micro nutrient supplementation (e.g. vitamin A, IFA), management of acute malnutrition, health impact assessment and health education on appropriate infant and young child feeding.

In 2012 Kenya joined and committed to the Scaling Up Nutrition (SUN) movement and a National Nutrition Action Plan (NNAP) was drafted to support this initiative. The SUN movement is an innovative movement founded on the principle that all people have a right to food and good nutrition. Within the SUN movement, national leaders prioritize efforts to address malnutrition and put the right policies in place to effectively scale up nutrition, with a core focus on empowering women.

For Kenya, joining the SUN movement means the government has committed to the implementation of the High Impact Nutrition Interventions (HiNi). The NNAP provides a framework for coordinated implementation of high impact nutrition interventions by government and nutrition stakeholders for maximum impacts at all levels. The plan has 11 strategic objectives that need to be addressed in order to realize the goal of promoting and improving nutrition status of all Kenyans. Some of the strategic objectives of the NNAP are to improve the nutritional status of women of reproductive age and children under five, to improve knowledge, attitudes and practices in optimal nutrition, to prevent the deterioration of nutritional status and save lives of vulnerable groups in emergencies and to strengthen the surveillance, monitoring and evaluation systems. Implementing HiNi and strengthening surveillance and monitoring and evaluation systems have a direct link to the Hyogo Framework for Action priority actions 2 and 4 of identifying, assessing and monitoring disaster risks and enhancing early warning and reducing underlying risk factors respectively.

The HiNi interventions that support the objectives include exclusive breastfeeding, timely complementary feeding, iron folate, vitamin A and zinc supplementation, hand washing, deworming, food fortification and management of moderate and severe acute malnutrition. Proposed activities have been aligned to the overall efforts of meeting MDGs 1, 2, 3, 4,
These activities are to be implemented through Integrated Management of Acute Malnutrition (IMAM) and other interventions such as Infant and Young Child Nutrition (IYCN) and prevention and control of micronutrient deficiencies.

IMAM is an approach that creates a link between the management of acute malnutrition in the community and in the health facility especially for the treatment of Severe Acute Malnutrition (SAM). Management of acute malnutrition involves promotion of public health interventions and nutrition counseling, nutrition screening and early identification of malnutrition to prevent severe malnutrition, and the treatment of positive cases to reduce morbidity and mortality.

Since IMAM has been adopted by Kenya as an effective way to implement the HiNi, the government has provided guidance on IMAM through the National Guidelines on IMAM targeted at health workers at facility and community settings. The guidelines provide comprehensive information on nutrition counselling and education, identification of malnutrition and treatment protocols. The guidelines also provide job aids to be used in the various settings.

For emergencies, the nutrition sector has a sector-specific Nutrition Sector Emergency Preparedness and Response Plan whose overall objective is to prevent deterioration of nutritional status and save lives of vulnerable groups in emergencies. The plan describes the nutrition situation analysis in the country and gets into more details of the nutrition situation in the ASAL counties. The situation analysis is done twice a year as per the long and short rains assessments done biannually. The situation analyses in each ASAL county are classified as critical, serious, moderate or normal. The classifications them are placed in implementation models matched by inputs per year. Critical and serious classifications are places under the high intensity implementation model, moderate is under medium intensity and normal is under the low intensity implementation model.

Donors and implementers are then required to fund and implement activities as per the implementation model and report accordingly to avoid duplication.

**Government Commitment and Investments**

According to the NNAP, 2012 – 2017, government allocation to nutrition is 2% of an overall health budget that is 3% of the government budget. Multiple sources indicated that this 2% of the health budget allocated to nutrition is not enough to meet the country's needs for nutrition and the sector has supplemented the government's allocation with funds from donors. In-depth conversations held with nutritionists in the field further found that the big reliance on donors and NGOs to fund nutrition interventions make the interventions unsustainable. Furthermore, given that many community-based nutrition and nutrition-related health services are delivered by CHWs. A greater commitment and investment from the government is needed in the implementation of the government's community health strategy to ensure that CHWs are not overworked and that they are supported and supervised as they perform their functions in the community.

**Approach and Delivery System**

The nutrition sector in Kenya is part of the overall health system and the coordination mechanisms are integrated into preexisting national health and nutrition coordination system. In 2010, Kenya passed a new constitution that introduced self-governing county governments with certain devolved functions. Health is now a devolved function administered by the county. The coordination mechanism below is as per December 2013 and will most likely change to reflect the new structure resulting from changes of devolution.
Figure 37: National Health and Nutrition Coordination System
CASE STUDY: ENABLING ADAPTABLE NUTRITION SERVICES THROUGH SURGE CAPACITY FOR THE INTEGRATED MANAGEMENT OF ACUTE MALNUTRITION (IMAM)

Previous experiences have shown that health and nutrition facilities in the ASAL are unable to cater to the needs of their clients during a drought. Enabling facilities to be adaptable and flexible, so that they are able to provide services to their clients during a crisis and provide the same quality of service to new clients due to increased demand is crucial. Good practices that enable facilities to be able to adapt and cater to increased or changed needs of its clients should be shared and scaled up with an intent to avoid a crisis during a drought or any another disaster.

An example of such a good practice is the IMAM Surge Capacity model currently implemented by Concern Worldwide in Kenya's ASALs. The overall objective of the IMAM surge capacity model is to "strengthen the capacity of government health systems to effectively manage increased caseloads e.g. of severe acute malnutrition during predictable emergencies without undermining ongoing systems strengthening efforts".

SYSTEM LINKAGES

Normal times

During normal times, the surge capacity model provides support to the nutrition policies that promote the improvement of the nutritional status of every Kenyan and especially the women of reproductive age and children under five. More directly, the model contributes to the NNAP objectives of preventing the deterioration of nutritional status, saving lives of vulnerable groups in emergencies and strengthening the surveillance, monitoring and evaluation systems. This is done through CHWs who work within communities counseling and promoting good nutrition, screening for malnutrition, counseling moderate positive cases, referring severe cases and following up on cured cases.

CHWs identify and refer positive cases of diarrhea, pneumonia, Moderate Acute Malnutrition (MAM) and SAM, which are recorded at a facility and monitored against the facility predetermined thresholds. The predetermined thresholds are unique to each facility and are determined by the staff facility during normal times based on their previous experiences of when the facility may have had a greater demand for services than they could handle. Thresholds are set for SAM, MAM and combined SAM and MAM.

The thresholds are written in a table format defining the numbers during the (i) normal, (ii) alert, (iii) serious and (iv) emergency times.

As part of this activity, the facility staff also discusses and documents appropriate actions and responses that the facility should engage in during the four different periods in a document referred to as the response package. For example if the facility experiences a caseload that changes the operating status from normal to alert, the facility could decide to train more volunteers and engage in mass nutrition screenings and campaigns.

Development of the response package is a joint activity between the facility and District Health Management Team (DHMT), and the DHMT agrees to the response actions required for each phase by an MOU.

During normal times, CHWs provide a link between the community and facility through the Community Health Extension Workers (CHEWs) at a facility level and lead mothers in mother-mother support groups at a community level. The CHWs also link other community groups such as Water User Committees and local leaders such as chiefs. They play a role in the promotion of good hygiene and disease prevention practices through special sessions by committees or chief's barazas.
Train /Supervise Identify/refer diarrhea, pneumonia, MAM, SAM
Record cases & monitor against thresholds
Respond to surge requests

Develop thresholds
Develop response package

Treat Cases

Hygiene / Sanitation Sensitization

Community CHWs CHEWs
WUCs, Leaders

Facilities

DCHMT

EW: Cases up, surge requests up
More coordination meetings
Mass awareness campaigns
Prepositioning of supplies

Surge triggered

Unable to meet Surge requests from facilities

National Govt and NGOs help to meet surge requests

Intensified nutrition counselling & sensitization on hygiene promotion & disease prevention

Figure 38: Nutrition Linkages
Table 7: SAM, MAM & combined Numbers

<table>
<thead>
<tr>
<th></th>
<th>SAM</th>
<th>MAM</th>
<th>Combined SAM &amp; MAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>10 &amp; below admissions</td>
<td>60 &amp; below admissions</td>
<td>70 &amp; below</td>
</tr>
<tr>
<td>Alert</td>
<td>11–12</td>
<td>61–75</td>
<td>71–87</td>
</tr>
<tr>
<td>Serious</td>
<td>13–15</td>
<td>76–91</td>
<td>88–106</td>
</tr>
<tr>
<td>Critical</td>
<td>16 &amp; Above</td>
<td>92 &amp; Above</td>
<td>107 &amp; Above</td>
</tr>
</tbody>
</table>

Once a facility sets its thresholds, active monitoring and recording against the thresholds commence immediately. Active monitoring and recording is done for SAM, MAM, pneumonia and diarrhea. Recording is done on a monthly basis on a graph that can be used to show trends.

For each data plotted, the facility refers to where it falls in the thresholds and determines an appropriate response from the previously discussed response package.

**Early Warning & Early Action**

Monitoring against the facility thresholds, the facility is able to tell if it’s in normal, alert, serious or emergency phase. An upward trend in cases is a trigger as an early warning sign for a drought leading to the need for early action. When a facility recognizes an early warning sign for a drought, it communicates it to the County Nutrition Officer (CNO) who passes on the information to the multi-sectorial Country Steering Group chaired by the National Drought Management Authority (NDMA). Early warning signs from regions outside the facility are also communicated downwards from the Country Steering Group to the CNO who informs the facility of the signs and recommendations for early action.

During times of early warning, if a facility reaches its threshold for normal times, it calls the Country Health Management Team who hold a meeting to discuss and respond to the request from the facility. In the surge capacity model, this activity is called triggering surge. Early warning actions are unique to a facility but may include activities such as prepositioning of supplies, mass awareness campaigns and an increased frequency of coordination meetings.

**Extreme Event**

During a drought, the nutrition sector is coordinated through the Nutrition Technical Forum with the CNO being the link from the community and facility to the County Steering Group and NDMA. An extreme drought is triggered when the County Health Management team receives multiple requests for surge capacity from different facilities and is unable to respond to these requests because the problem is in multiple facilities. In such cases, the county will request the national government and NGOs to help meet the surge requests. Nutrition counseling and hygiene promotion and disease prevention sensitization will also be intensified to help reduce malnutrition and disease incidence. While such actions can’t prevent some disruption of nutrition services for all people in such situations, surge capacity helps to fill gaps and initiate the necessary steps to prevent disruptions faster and more effectively.

**ADAPTABILITY IMPACTS**

**Undisrupted service**

The surge capacity model enables a facility to develop a response package in which it puts certain measures in place to make sure the facility keeps operating when conditions change from normal. Response activities are categorized as activities for normal, alert, serious and emergency times based on the facility’s threshold. As part of the planning for changing times, the surge capacity model enables a facility to anticipate future needs and put in place measures relevant to respond to those needs. For example, during the alert phase, facilities may preposition drugs and nutrition commodities and increase the number of volunteers trained in nutrition related activities.
Context relevant
The surge capacity model is facility based and all the components of the model are expected to be unique to an individual facility and the community it serves. The first activity of the model is the risk analysis activity and is developed by the facility staff and a few members from the community. The risk analysis is a facility-led participatory process in which the communities discuss factors that impact the prevalence of malnutrition and health-seeking behavior affecting caseloads at a facility. The factors could affect malnutrition positively like in annual health campaigns or negatively like in the case of a drought. These factors are plotted in a diagram which is used to develop a response package. Developing thresholds and response activities are done at a facility level with input from the community through CHWs and mother-to-mother support groups. Involving the facility in all components keeps the surge capacity model relevant to the community and facility it is meant to serve.

Do No Harm
At a community level, the surge capacity model does not have any components or activities that undermine the lifestyles of the community. At a facility level, activities associated with the model, such as data collection and monitoring, are activities mandated by the MOH and therefore do not add a strain to the workers at the facility.

RESILIENCE STRENGTHENING Knowledge and Ability to Adapt
Though it is facility-based, the surge capacity model strengthens the resilience of both the facility and the community it serves. At the facility level, as part of the model, the facility increases its knowledge of the community it serves and the nature of caseloads it deals with regularly. The facility is therefore able to identify abnormal caseloads and trigger appropriate response actions. To ensure accurate information on caseloads at a facility, the facility has to ensure that the CHWs and lead mothers working in a community are able to recognize and refer cases of moderate and severe malnutrition, as well as pneumonia and diarrhea. As part of their work, the community workers are also expected to increase good nutrition, hygiene and disease prevention practices within the community.

At the facility level, setting thresholds and developing and implementing a response package gives the facility the ability to adapt as conditions change from normal to alert, critical and/or emergency.

At the county health team level, the model increases the knowledge and capacity of the health members to make decisions on how to respond to the requests put forth by the facilities they serve. Working with the facilities to develop a response package increases their awareness of their vulnerabilities and the actions they need to engage in to be able to respond to a request for surge capacity.

County health management teams should complement the efforts of the facilities by developing a county-based response package ranging from response when a request is received from one facility to response when all the facilities are requesting assistance.

Access to basic services
Though the surge capacity model is facility-based, its main role is to support IMAM. As a result, there is a community-based component of improving the health and nutrition status in the community including identifying and referring positive cases of malnutrition.

In addition to their work in health and nutrition, CHWs often serve on other committees such as those for water and education. By developing their capacities for surge capacity and for generally understanding how to adapt, better decision-making in these other sectors can lead to more adaptable access in them as well. It also should improve linkages across services in communities.

Participatory decision-making
During the start-up phase of the model, a facility develops a risk analysis map, sets thresholds and develops a response package. All of these components are developed by the facility staff together with the community served or the county health management teams. In the development of the risk analysis map, the facility staff leads the process with the largest input coming from the community who know the disaster cycles in their areas well. The map then is used to make decisions for the response package. Decisions made and agreed upon in the response package are acted upon with cooperation and support from the county health management team.
Setting thresholds is a participatory process that includes all nutrition stakeholders who have experience in the facility and are able to contribute to a decision on the number of caseloads that a facility can and cannot handle on its own.

**Ability to meet needs**

All of the components of the surge capacity model enable a facility to be able to meet changing needs of its clients with a response package that enables it to adopt response measures that keep it operating when conditions deviate from normal. By doing so, it also better enables community members to consistently remain more nourished and healthy so that they can better meet household needs consistently.

**Equitability**

Good implementation of the IMAM surge capacity model includes active case finding and referral of malnutrition, pneumonia and diarrhea cases. Locating cases in the community done by CHWs and lead mothers entails door-to-door visits to various members of the community who may be hard to reach or who may not be able to visit a facility. CHWs also participate in other committee meetings such as water and education committees.

Since the surge capacity model is designed so that the facility requests assistance from the county health management team when it needs help, the county health management team then becomes the link to all the facilities in its area that are using the model. Being in touch with many facilities enables the health management team to be able to realize when there is a situation in the county that could also affect other facilities who may not be using the model but are also likely affected.

**Sustainability & Cost-Effectiveness**

The surge capacity model is developed and implemented by a facility based on the everyday activities that the facility implements and is based on the facility’s capacities and resources. As long as the government continues to provide health care services to people through the community health strategy, the surge capacity model remains relevant and sustainable and can be developed, implemented and managed by a facility with its own resources. When integrated as part of a facility’s IMAM and data strategy, the surge capacity model can be used in a facility at no additional cost. Advocacy of its benefits for early warning signs ability and for resilience strengthening impacts is key to attracting more funding that will allow coverage of more facilities and communities.

The response package that is part of the model includes actions that require additional resources such as the training of additional volunteers and stockpiling of nutrition supplies and commodities. As whether or not this is being done cost-effectively is unclear, additional research and studies are required to address the cost effectiveness of the IMAM surge capacity model.
Intended
Strengthen government health system capacity to manage predictable increases in severe malnutrition

Adaptability
- Response package with preparedness and response measures keeps facility operating during a crisis
- All components of the model are developed uniquely by each facility and by the community it serves
- Model prepares facility to plan for increased caseloads
- Community lifestyles & coping mechanisms are not undermined
- No added strain to facility workers

Resilience-Strengthening
- Community, CHW & lead mother knowledge of nutrition, hygiene & disease prevention
- Health worker capacity to decide & respond
- Facility knowledge of normal & abnormal nutrition caseloads
- Response package to adapt as SAM caseloads increase
- Community-based improvement of health and nutrition conditions encouraged
- Better water & education committee capacities
- Decisions made by facilities and communities with help from CHMT
- Surge capacity enables facility to meet changing needs
- Undisrupted nutrition enables household needs to be met consistently

Equitability
- Remote people visited by CHWs & lead mothers
- CHMT = link to all area facilities

Sustainability
- Developed, implemented & managed by facility
- Surge capacity integrated into IMAM = no extra cost

Cost Effectiveness
- Some extra resources needed for response
- Full cost-effectiveness should be studied
Figure 41: Nutritional Surge Capacity Model
KEY MESSAGES

• The case study was an in-depth study of a surge capacity model that strengthens the capacity of health and nutrition facilities to provide the same level of services during times when demand increases.

• To implement the model, facilities engage in activities in which the staff determines what the case-load of SAM, MAM, pneumonia and diarrhea that the facility can handle without asking for help. The staff also categorizes case-load numbers of the same illnesses that are considered normal, alert, serious and critical.

• The scalability model supports good programming especially for preparedness and increasing the responsiveness and adaptability of the system. Some of the activities include supporting facilities develop a response package in which they put certain measures in place to make sure the facility keeps operating when conditions are different from normal. Response activities are categorized as activities for normal, alert, serious and emergency times. As part of the planning for the possibility of changing conditions, the surge capacity model enables a facility to anticipate future needs and put in place measures relevant to respond to those needs.

• The model strengthens the capacity of county health management teams to respond to the needs of the facilities they serve by responding to requests for additional human resources, supplies and commodities to respond due to increased demand.

• Once malnutrition rates have increased, the effects of a drought may already be realized. So rainfall, food and nutrition diversity and livelihood indicators are better predictors of potential drought. But close attention to initial signs that malnutrition rates may be increasing can help to avert more serious malnutrition increases over time and across locations. In this manner, a well implemented surge capacity model with good coverage can indicate drought-related problems. These might be used as secondary signs of early warning that enable early action to both provide treatment services and avert further rate increases.

LESSONS LEARNED AND RECOMMENDATIONS

Lessons Learned

• The nutrition sector has policies, strategy documents and action plans that give guidance to members of the nutrition sector on the set-up of the sector and the implementation strategies. According to the government structure, nutrition issues are handled by the Ministry of Health and food security issues are handled by the Ministry of Agriculture. There is an imbalance of nutrition and food security issues in the policy documents depending on the ministry that led the development of the document.

• Within the nutrition sector, there is the Nutrition Technical Forum, a coordination structure that handles normal nutrition issue but also deals with preparedness and emergencies.

• The sector has an operational nutrition sector preparedness and response plan that is revised twice a year and is used by donors and implementers to avoid duplication in funding and activities.

• According to the Nutrition Action Plan, 2012 – 2017, government allocation to nutrition is 2% of the overall health budget which is 3% of the government budget; 2% is not enough to meet the country’s nutrition needs so the sector has supplemented the government’s allocation with
funds from donors. Great reliance on humanitarian funds makes long-term nutrition interventions unsustainable.

- Facilities can organize themselves to collect accurate data on cases of malnutrition and diseases that affect malnutrition and to plot and monitor this data against their thresholds and ability to handle certain levels. If they get a caseload that they are not able to handle, they should be able to call the county health management team for help.

- Having an organized way of collecting data and monitoring against thresholds can act as a good early warning sign for a crisis for a facility and for the county health management team especially when requests are made and received in a timely manner.

**Recommendations**

- To ensure sustainability, the government should review its allocation to nutrition compared to the needs in the sector and adjust the allocation to the needs.

- The nutrition sector should share its good practice of having a preparedness and response plan that is kept current and used by donors and implementers to avoid duplication.

- For successful program implementation and timely response, the country health team should anticipate multiple requests from the facilities they support and create preparedness measures for responding and actions of what to do when they are unable to respond. The process of country teams preparing to respond to multiple requests should be repeated at the national level people at the ministries who support them.

- In terms of enabling adaptable and flexible service delivery for nutrition services at a facility and community level, surge capacity model should be considered for scale up to ensure good coverage for effective impact.

- A study should be conducted on the cost effectiveness of the surge capacity model to determine and document the commitment and investment required from the government to ensure that facilities are able to implement the response package during the various phases that they plan for.
Kenya is a water scarce country with renewable freshwater resources estimated at 647 m3 per capita per year below the UN recommended benchmark of 1000 m3 per capital per year. Kenya has five high altitude-based towers namely Mt. Kenya, Aberdare Ranges, Mau Forest Complex, Mt. Elgon and Tugen Hills. The collective coverage of these towers is 903,962 hectares and they continue to be severely damaged by urbanization, population growth, human settlements, agriculture and the destruction of vegetative cover. Continued damage to these towers has contributed to the decline of fresh water supply to Kenya which is projected to decline to 235 m3 by 2020 from 647 m3 (Government of Kenya 2010b). Availability and access to improved water sources and sanitation facilities differ from urban to rural settings. A survey undertaken in 2009 in 22 underserved districts highlighted significant disparities in quality and reliability of water supplies within the districts. As a consequence, pneumonia and diarrhea are among the leading causes of the under-five child mortality largely due to limited access to water and sanitation services and inappropriate hygienic practices in Kenya. In 2010, an estimated 32,000 children of this age group died from diarrhea and pneumonia.

Access to Water and Sanitation in the ASAL and associated issues
Approximately 80% of hospital attendance in Kenya is due to preventable diseases and about 50% of these illnesses are water, sanitation and hygiene related. (UNICEF Kenya). ASAL and peri-urban areas have some of the worst indicators for water and sanitation coverage in Kenya. During a drought, when availability to water and sanitation facilities decreases, incidence of these illnesses and the number of health center cases increase. Furthermore, water related disease such as cholera and Acute Watery Diarrhea (AWD), cause malnutrition that leads to increased cases at nutrition and health centers. Adequate supply and access to water and sanitation facilities is crucial for a health and nutrition center for feeding the patients, treatment and therapeutic purposes and for ensuring a clean environment free of disease. For other services such as education, schools need water for the students, for cooking and for cleanliness. Access to adequate sanitation facilities and knowledge is necessary to ensure an environment free of disease transmitted through fecal matter such as cholera.

During an extreme drought, distances to water points and waiting times are increased. When there is insufficient water, households may migrate with their livestock to look for water to sustain them and their livestock. Reduced water intake for livestock leads to reduced milk. This may affect the amount of milk available for intake and the resulting food security of a family. Furthermore, migration and settlement around a water point may lead to conflict between the host community and the migrating population that causes insecurity and potential loss of lives.
Additionally, a study by Solidarites (CAP MYR 2012) found that there is inadequate knowledge on safe hygiene and disease prevention practices in the ASALs and that the link between hygiene and water related disease such as cholera and AWD is poorly recognized. This results in high incidence of water related illnesses in the ASALs where there is low coverage of water and sanitation facilities that further increase during a drought when the facilities are more scarce.

The definition of the right to water and sanitation is provided by the The Right to Water adopted by the United Nations Committee on Economic, Social and Cultural Rights in 2002 (UNESCO 2002) and the Guidelines for Realization of the Right to Drinking Water Supply and Sanitation adopted by the UN sub-commission on the Promotion and Protection of Human Rights (OHCHR b). Both documents say that access to safe, sufficient and affordable water for personal and domestic uses is a human right.

The two documents detail that a person is entitled to a minimum of 20 liters of water per person per day, that the water must be in a secure location within safe physical reach, that it must be free from substances that can cause water related illnesses and diseases and that it should not be susceptible to contamination from human and animal excreta. Water and sanitation services must also be affordable without compromising the ability of individuals and households to acquire essential goods and services.

The Kenya National Water Policy (Government of Kenya 2012c), as discussed later in this section, recognizes that accessibility to improved water and sanitation in the ASALs is below that of the rural areas and the national average and that distances between the facilities is greater than the national average. Assessments indicate that the distances to water sources remain high in the ASALs with an average of 15 kms in some areas, and with waiting time ranging between 30-120 minutes. Walking long distances to water sources leads to physical stress on women that leads to reduced milk production for breastfeeding and also takes time away from caring for young ones or from being productive in income generating activities.

**POLICIES**

**Trends and Reforms**

The Water sector in Kenya underwent major reforms in 2002 after the introduction of the Water Act No. 8 of 2002. The Act separated policy, regulation and service provision and also decentralized provision of water and sanitation services through the Water Service Providers linked to the Water Service Boards. Before that, water and sanitation service provision was the sole responsibility of the National Water Conservation and Pipeline Corporation. The Act also spearheaded a human-rights approach towards access to improved water and sanitation as a human right, later solidified in a constitution passed in 2010. Major milestones adopted through the Water Act as part of the water sector reforms are:

- Decentralization of roles, responsibilities and establishment of key institutions
- Stakeholder involvement in management of water resources
- Equitable allocation of water resources among all Kenyans
- Development of water sector strategies
- Cost recovery as a means of sustainable service provision
- Government subsidies in supplying the poor with water.

Coordination reforms led by the Ministry have also resulted in the formation of the Water and Environmental Sanitation Coordination mechanism (WESCOORD) to coordinate all water sector members. WESCOORD is a WASH sectorial specialist group under the Kenya Food Security Steering Group (KFSSG). It is a forum for coordinating water and sanitation sector actors The permanent secretariat of WESCOORD is the MEWNR and is co-chaired by the MOH and UNICEF. Though WESCOORD is a national body dealing with WASH issues nationwide, it has prioritized improving and increasing access to WASH services in the Arid and Semi-arid Lands (ASAL).

WESCOORD is the coordination and linkage mechanism that provides for the exchange of drought early warning signs from government key sectors and from the community. This is in line with the Hyogo Framework of Action, Priority Action 2 that says to
“Identify, assess and monitor disaster risks and enhance early warning.” As the WASH sector coordinating group of the FSSG, WESCOORD provides a mechanism for the exchange of drought warning signs to and from the National Drought Management Authority (NDMA) which is the secretariat of the FSSG.

Policy Documents
Protection of the most vulnerable, good governance and monitoring and evaluation systems strengthening are cross cutting issues covered by all policy documents.

On protection of the most vulnerable, the policy documents acknowledge that women, children and persons with disability are among the poorest in society and are the most affected where water supply and sanitation services are inadequate or interrupted. They say that the government will ensure fair representation of these groups in all its strategies and decision structures. The documents also stipulate that the water sector will observe the one-third rule constitutional provision for participation of women in water sector leadership such as representation to boards in the sector. They also say that the MEWNR will actively devise special programs for the youth and address the concerns of the youth and people with disabilities to meet their water needs.

The policy documents emphasize the importance of good governance that self-governing service providers who collect tariffs use the money for the benefit of their consumers. Such good governance also requires that the service providers are accountable to the community and, to reduce the risk of corruption, are transparent in the use of money collected. Good governance requires that members of water managing committees are representative of the community and that decisions around the water system are made with input from the community.

On monitoring and evaluation, the policy documents promote the development and implementation of good monitoring and evaluation systems that provide advice on the ongoing situation of the water sector and lessons learned that can be used to improve it. Good monitoring systems that are linked from community, county and national levels and can give timely information can also be used to give early warning signs of a drought.

The Kenya Water Act 2002 is the main legislation that regulates the water sector in Kenya. It was passed by an act of parliament in 2003 and revised in 2012. The Act names the MEWNR as the main coordinating body for the sector responsible for overall oversight over the sector, policy formulation and resource mobilization. It makes it clear that the State owns all water resources in Kenya and defines the various ways in which water and sanitation services will be provided in the country by introducing the following:

- Eight Water Services Boards (WSB) responsible for the provision of water and sanitation services
- The Water Resources Management Authority (WRMA) responsible for the protection and management of Kenya's water resources
- Water Service Providers (WSP) as the bodies responsible for the actual provision of water and sanitation services
- The Water Services Regulatory Board (WASREB) responsible to set standards and regulate the sector
- The Water Appeals Board (WAB) responsible for settling disputes.

The policy says that all the stakeholders of the water sector will be coordinated through Integrated Water Resources Management, an approach discussed in detail later in section 1.3.

The Kenya National Water Policy 2012 (NWP 2012) was developed by the MEWNR and is based on the mandate provided to the ministry by the Water Act 2002. It takes into account requirements from Vision 2030 and the Constitution of Kenya 2010 which states water as public land and the right to water by all.

The policy notices that Kenya has enjoyed enormous economic growth and livelihood development that has increased the demand for freshwater supply yet the water sector has not been able to adequately meet the demand for water services provision in line with such development. The policy also ensures that Kenya shall observe bilateral agreements, international laws for the use of shared waters and regional and continental obligations.
Under the NWP objective 3.3, To progressively achieve universal rights to water supply and sanitation for all by 2030 in the rural and urban areas, the policy highlights the importance of educating the public on their responsibility to pay for the services and infrastructure that give them safe, reliable and affordable water and sanitation services with a goal of attaining 100% service provision by 2030. The policy further says that the government should invest more on infrastructure targeting the low-income areas so to replace informal service provision such as cartels with formalized/controlled services providers such as water committees, water user associations and water service providers that are linked to the county water office. The policy makes it clear that the county water office shall ensure the management of the water systems by providing technical support to the formalized service provision bodies.

Results obtained from this review find communities that have organized themselves in formalized and controlled water provision bodies such as water committees and water user associations are better able to control their water services. This includes having increased ability to maintain a constant water supply because of better control of water distribution and an efficient collection of tariffs. These tariffs are used to buy any needed fuel for generators, pay for breakdown repairs and for allowances for personnel, such as a water operator who then dedicates his time in ensuring that the community’s water system is always functioning.

Visited communities with well organized and responsible structures had water operators hired and paid for from tariffs collected from the use of water but operators only fixed minor breakdowns and had to call on the county water office for assistance on major breakdowns. The policy states that it is the responsibility of the county water office to provide support and technical assistance to the water institutions. Having spare parts readily available reduces the period of time a water system is non-functioning due to a breakdown.

The Kenya Water Sector Strategic Plan (WSSP) 2010 - 2015, is another national document that recognizes the right to water and sanitation services for all Kenyans. The purpose of the strategy is to ensure sustainable access to safe water and basic sanitation for all Kenyans by ensuring wide coverage of water service providers and ensuring progressive extension of sewage services to every center of population in Kenya.

The strategy recognizes that Kenya’s water resources are rapidly deteriorating due to deforestation, land erosion and encroachment by farmers and settlers. To protect the declining water level, the strategy emphasizes the need for protection of water resources with controlled water access and distribution, pollution control and peaceful water conflict resolution. The Integrated Water Resource Management approach (discussed below in section 4.3), is meant to ensure that water resources are protected from abuse and pollution by all stakeholders and that sustainable water resources are achieved by focusing on certain areas that include preparedness and disaster risk reduction.

To support the county office in its role of technical assistance, training and fixing of breakdowns, the policy says that the national government shall ensure standardization of appropriate innovative technologies and the county government shall establish a central spare parts stocking system.

Government Commitment and Investment
In addition to creating a policy environment, guidelines, goals and commitments that emphasize increasing access to improved water and sanitation facilities for all Kenyans, the government has created the Water Services Trust Fund (WSTF), a State Corporation established under the Water Act, 2002 with the mandate “to assist in financing the provision of water services to areas of Kenya which are without adequate water services.”
(Water Services Trust Fund). The Trust Fund’s mission is to provide financial support for improved access to water and sanitation in areas without adequate services, and its mandate is to support capacity building activities and initiatives that aim at enabling communities to plan, implement, manage, operate and sustain water services. In addition to the formation of the trust, the government has invested in fulltime employees with responsibilities to implement the WSTF’s strategic plan. The current WSTF strategic plan 2008 – 2013 serves four key objectives of (i) resource mobilization; (ii) application of resources raised to fund the provision of water services; (iii) establishment of strong linkages with key stakeholders especially the Water Services Boards; and (iv) upgrading of staff skills and strengthening the institutional capacity of the WSTF.

To provide financial assistance, the sources of the funds is from regular government budgetary allocations, donor donations, grants and other sources that may apply.

**APPROACH**

As a cross cutting approach, the government has required all stakeholders in the water sector to take a pro-poor approach that ensures that the preparation, planning and implementation of water and sanitation activities focus on both the rural and urban poor and the vulnerable and hard-to-reach populations. The approach ensures that the stakeholders prioritize improving access to water and sanitation services groups. To support this approach, the government developed The Pro-Poor Implementation Plan for Water Supply and Sanitation (PPIP – WSS) in 2007.

The systems delivery, approach recognized by the water sector for implementation is the Integrated Water Resources Management (IWRM) approach. This is an approach that promotes a coordinated development and management of water, land and related resources, in order to maximize resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems Integrated Water Resources Management. This approach helps to manage and develop water resources in a sustainable and balanced way, taking into account social, economic and environmental interests. It acknowledges the participation of many different institutions (public, private, and civil), interest groups and other stakeholders involved in the sector. The integrated approach co-ordinates water resources management vertically across local, national and international sectors. The approach separates and acknowledges the distinct role and responsibility for each player.

The water sector in Kenya is comprised of a combination of public, private and civil institutions ranging from government ministries such as the Ministry of Environment, Water and Natural Resources (MEWNR) and the Ministry of Health (MOH), to private institutions such as Water Service Providers to smaller community based institutions such as Community Water Committees. The lead agency that coordinates all actors in the sector is the Water Resource Management Authority (WRMA) which was established under the Water Act 2002. At a regional level, coordination of the water sector is through the Catchment Area Advisory Committees (CAACs) and the Water Resource User Associations (WRUAs) coordinate at a local level.

The sector also includes: regulators such as the Water Services Regulatory Board (WASREB) who regulate water supply services: the National Environment Management Authority (NEMA) who regulate sanitation services and the treatment of sewage and the Water Appeals Board for settling disputes related to the sector and the.
CASE STUDY: ENABLING ADAPTABLE WATER SERVICES THROUGH THE BOREHOLE DISTANT MONITORING SYSTEM

Some communities in the arid and semi-arid lands are using a borehole distant monitoring system to monitor and control the water services provided by the communities’ water user associations or service providers. To setup the system, a smart mobile phone and training on the phone is required. Water user associations or service providers select operators to be trained on the monitoring system. As part of the training, the operator’s phone is loaded with a questionnaire that the operator uses to collect and record daily data on the water level of the borehole, water usage per day by households and livestock, water usage by institutions, any repairs due, and more. For functionality of the borehole, the operator records data regularly and submits it monthly. Breakdowns are reported along with repair assistance requests as soon as breakdowns are noticed.

Data is submitted monthly to the county water office’s technical assistance or monitoring unit. However, information collected daily by the operator can also be used by the water user associations or service providers to better manage their water resources depending on the water levels and water demand.

HOLISTIC LINKAGES
Normal Times

The monitoring system is regulated by a water user committee or service provider who communicates the data they collect to the communities they serve. The data is translated into information that is then relayed to communities for action.

The system informs the community on the water level available for use. Since the data is collected daily, the committee can easily tell when there is an increasing or decreasing water level. The system also informs the committee when there is an increase in water usage, which could indicate an increase in demand from the community and its institutions or possibly that a new group of people has moved into the community.

Information is then relayed to the community, and participatory decisions are made at the community level. For example, when the borehole water level is low, the committee calls for a community meeting through the chief to discuss how to maintain a supply of water for essential services and the possibility of rationing. The same process applies in cases of increased water usage in which the committee starts with determining the cause of the increased usage.

During such meetings, or other regular barazas chaired by the chief, the committee raises awareness of the community on other water related services such as proper hygiene and sanitation. During such meetings, the committee could also request the community health committee or health workers to present hygiene promotion and disease prevention messages.

The information received from the data, such as a declining water level or increased demand for water, can be used as early warning signs for an upcoming crisis. The committee uses this information to report via SMS to the County Water Office who then report to the County Group Steering Committee and the WESCOORD coordination mechanism.

Early Warning Early Action

During a period of early action, official communication gets to the committee from the county water office which gets its information from the NDMA early warning flag system and monthly bulletin. However, it is also possible for the committee to notice a declining water level and use that as a reason for early action. During such a time, the committee may ration water to save supply but may also pump extra water to institutions such as health centers for storage to be used during times of increased demand. During such times, the committee also intensifies messages on hygiene promotion and disease prevention.

Extreme Event

When the operator notices through the distant monitoring system that there is insufficient water to meet the crucial need of the community, that becomes a trigger for an extreme drought. In such a case, the committee makes the decision to implement extreme water rationing measures where water is used only for life saving purposes such as drinking and for health
Figure 43: Water Delivery Linkages
and nutrition purposes in facilities. The committee intensifies messages on hygiene promotion and disease prevention.

The committee also might assemble the community to discuss migration and, if agreed upon, migration to a water point that has enough water for people and livestock occurs.

**ADAPTABILITY IMPACTS**

The BDMS is intended to enable WASHcos and other Water Service Providers to monitor, maintain, repair, and make decisions regarding their boreholes and water delivery systems more effectively. Data that is collected can be used to make decisions regarding how to distribute water in manner that optimizes over users’ needs while minimizing breakdowns that prevent those needs from being met. Data such as indications that water levels are low can also be collected and used as signs of drought early warning. Understanding this data and these signs can better enable communities to make decisions regarding how to take early action to prevent disruptions of water supply.

**Undisrupted service**

Using information on the water level and on daily usage by institutions, households and livestock to monitor and control water provision leads to fewer breakdowns of the borehole. This helps ensure that the community has a constant, uninterrupted supply of water. The system enables the water provider to monitor water usage and distribute water in a way that eliminates stress on a distribution system that
would breakdown if not monitored and controlled. The likelihood of a major breakdown is reduced because the system is operated by a fulltime operator who has been trained on how to perform regular maintenance and to fix minor breakdowns.

A community interviewed in Milima Tatu, Turkana county, said that since they have had the monitoring system and have been able to control the use of the borehole water, they have not had a breakdown. Prior to that they would experience at least three breakdowns per year.

When a breakdown occurs that cannot be repaired, the operator immediately sends a text message requesting for a skilled technician to be sent to fix the borehole. According to water operators interviewed as part of this review, the monitoring system has reduced the amount of time that a borehole is not functioning. This is mostly attributed to the fact that the message of a broken borehole is sent and received almost immediately. This reduces the time and costs that would otherwise have been used to travel to report a breakdown in person. Prior to the system, when a borehole broke down, a person from the community would travel by road to report the breakdown, a process that would take days depending on the location of the village.

Anticipating future needs
The distant monitoring system enables communities who implement it to collect data and use it to track trends on the water level. A downward trend in the water level is a warning sign of a drought. Knowledge of this early warning sign enables the communities to make informed decisions about using the water available wisely to ensure there is water for drinking during a drought. Such decisions could include rationing where water to be provided is for critical needs only, staggering use in which livestock drinking needs are separated from the drinking needs of human beings, or only pumping water to institutions that provide life-saving services such as health centers.

The decisions to ration or stagger water use are intensified depending on the situation. If water becomes insufficient for livestock and people, households with livestock could be asked to migrate so that water use in the community is used for drinking and life-saving purposes only.

Context relevant
Though the community is operated by a water user committee, they are selected by the community members they serve. The committee members live within the community and use the same water system as the community they serve. For a committee that is accountable to its community, a decision to purchase and implement the water borehole distant monitoring system is made through a participatory process between the water user committee and the community members. This means that a community chooses to implement the borehole system with full knowledge of the system and the benefits it brings to them. If a community is unaware of the benefits of the system, it would not authorize the committee to purchase and implement it.

Do No Harm
The use of the distance borehole monitoring system does not undermine the lifestyles or coping mechanisms of the community who implement it. For example, for a pastoralist community, the system does not discourage migration to seek other water points or greener pastures.

The system also allows a host community to address the water needs of a group that may migrate into their area because the system shows an increase in water usage due to new demand. Recognizing a new population allows the water user committee to charge tariffs to the new water users, standardizing their use to that of the host. This discourages the likelihood of conflict.

RESILIENCE STRENGTHENING IMPACTS
Knowledge and ability to adapt
When implemented and used correctly, the monitoring system increases the knowledge of water user associations / service providers on the amount of water available for use and how that relates to the needs of the people they serve. Knowing the amount of
water available and tracking the water level enables a community to adapt depending on the water availability. One community visited as part of this study, monitored their water level and usage over time and discovered that they had enough water to meet all their needs and extra for the irrigation of crops.

Knowledge on preparedness measures necessary to mitigate the effects of a drought is also raised within water user associations / service providers and community members. Using the system to monitor and respond to early warning signs increases the knowledge within the associations, institutions and community on how to prepare for a drought. Preparedness measures include informing institutions such as schools and hospitals to store extra water, rationing the use by households and livestock and distributing information on hygiene promotion and disease prevention to the community.

Access to basic services and improving overall health status
While a borehole provides water to a certain community, having a borehole monitoring system allows the community’s water association to manage the water system in a way that maintains the provision of water and water-related services to facilities that provide basic services even in times of crisis or increased demand. In terms of distribution, the system allows the water provider to pump water as per different priorities and to make decisions around rationing or use of water for essential needs such as drinking and for life saving facilities such as health centers.

Monitoring the use of a borehole and making sure that water is properly used, that breakdowns are readily reported and attended to and that communities receive hygiene promotion and disease prevention messages improves the overall health status of people served by the water user association managing the water.

Participatory decision-making
Though the distant monitoring system is operated by the water user committee, decisions around the system are made through a participatory process with the community. For set-up, the community has to agree to the purchase of a phone, airtime and the recruitment of a fulltime operator. This is because the money used for the startup of the system is from the water tariffs collected from the community. Once the system is operational, decisions based on the data collected by the system such as rationing, or the use of extra water for irrigation are also made by the community through community meetings or barazas.

Ability to handle own needs
The borehole distant monitoring system enables a community to manage its needs for water independently because it enables a community to know accurately the amount of water it has access to and how to use it. This means that when the system shows a decreasing water level, the community is able to make decisions on how to use their water wisely to ensure they have adequate water during a drought with less reliance on external assistance.

For the use of the water, a community organizes itself and selects a water user association or service provider who charges the community monthly tariffs for the water. These tariffs are used by the community to pay for services required to keep the borehole functioning such as stipends for operators, fuel for generators and payments for repairs and breakdowns. This means that the community is able to purchase fuel for its generators and fix minor breakdowns. This makes the community less reliant on the government or NGOs for fuel and repairs.

Having access to an uninterrupted water supply means that the livestock of the community is healthier, which increases the financial position of the owners. Access to water also allows the community to engage in alternative income generating activities such as irrigation of crops which in turn enables the community to have better food security and/or income from the sale of crops.
Intended
Increase the capacity of WASHco and water service providers to use data collected to:
1. Properly distribute water to minimize breakdowns
2. Collect information and make decisions on early warning signs of drought

Adaptability
- Better distribution = less breakdowns
- Increased capacity for repairs and breakdowns
- Reduced waiting time for repairs: SMS
- WASHco members are selected by/from community
  - Community input in decision making, fees, rationing
  - Community informing WASHco, E/W immigrants
- Storage of water by facilities
  - Staggered use
- Community can still get water from other sources and can migrate
  - WASHco selected by community; operator required to train other members of community on systems

Resilience-Strengthening
- WASHco
  - Water demand and supply
    - Fix minor repairs and breakdowns
  - Community
    - Hygiene promotion & disease prevention; EW/AWA, rationing, migration
- Facilities stay open: health centres, schools
- Hygiene promotion, disease prevention messages
- Community input on rationing/tariffs
- Community involved in decisions for new populations
- Tariff collection: Maintenance & supplies, fix/pay for repairs

Equitability
- System informs WASHco of increased use due to populations new to the area
- WASHco provides water to distant populations
- Tariffs are adjusted for people who cannot afford
- Institutions such as schools and facilities are prioritized for water distribution

Sustainability
- Initial system training, follow-up and technical assistance by CWO
- Community WASHco manages system itself

Cost Effectiveness
- Once phone purchased, only airtime required
- Communities with well-organized WASHco should be able to initiate and run the system using tariffs collected
**Equitability**

Though the borehole distant monitoring system does not directly provide equal access to all members of the community, it does inform the committee when there is increased usage of water due to a new population in the community. As such, the committee is able to provide water to the new population in a manner that does not cause conflict with the host population.

Also, the system informs the committee on a declining water level, which may lead to rationing and result in people walking further and waiting longer to get water. When the committee becomes aware of this information, it is able to adjust provision of water to vulnerable members of the community that are not able to travel long distances or wait for prolonged periods of time. These members of the community could be people with disabilities and people of advanced age.

**Sustainability**

Training on how to develop and maintain a borehole distant monitoring system is performed by the implementing organization such as an NGO or the County Water Office. Once the water user association or community is well trained, they can monitor their boreholes themselves. If there are any cost implications, they would pay from the tariffs received monthly from the water users. For technical assistance, the community is well linked to the government who are easily reached via the mobile phone used to collect and submit data. Lack of dependency on outside sources, and the ability of the community to manage the costs associated with the system make it sustainable.

**Cost Effectiveness**

The system is comprised of a smart mobile phone and airtime that is bought regularly. Smart phones are widely used in many populations in Kenya and once a phone is identified or purchased, maintenance of the system only requires airtime. Communities with well-organized water user associations, committees and service providers should be able to initiate and run the system using tariffs collected.

Though the borehole distant monitoring systems seems cost effective at a community level, further research is needed to address its cost effectiveness at a county level where monthly data is sent by communities and where requests for breakdown repairs are sent.

**KEY MESSAGES**

- A borehole distant monitoring system enables communities to manage their water resources by monitoring daily usage by households, livestock and institutions.

- The system allows water user committees or service providers to monitor their water system daily. This enables them to effectively manage and control the distribution of water in a way that reduces stress on the system and reduces breakdowns.

- Having a system that uses a mobile phone allows the community to report borehole breakdowns through SMS. The message is received immediately, reducing the amount of time spent in reporting and waiting for action.

- The system gives information on daily water levels and demand which can be used as indicators for early warning signs of a drought.

- The system allows a community to use its water resources in a flexible way where the system can adapt to changes on demand that may arise from a crisis caused by scarcity of water.

- The system is sustainable because it is implemented and managed by the community using it.

- Since only a smart phone, airtime and full time operator is required for the system to operate, it seems cost efficient. Such costs can be paid for from tariffs collected for water services through a cost recovery system covered for in the national water policy.
LESSONS LEARNED AND RECOMMENDATIONS

Lessons Learned

- Kenya water sector has policies, strategies and goals aimed at improving the overall access to improved water and sanitation facilities with a vision of attaining 100% access by 2030.

- Kenya’s policies, strategies and goals support a technical and implementation approach and a structure that is well laid out in the policy documents.

- Having an integrated approach that encourages members of the water sector to work together but clearly defines and separates their roles with coordination from the ministry ensures that the social, economic and environmental interests of the sector members are catered for while ensuring that land, water and related ecosystems are protected from misuse and abuse.

- Formalizing water and sanitation provision at a community level, linking community-based institutions to regional institutions and empowering community-based institutions to charge cost recovery fees helps communities have ownership over their water system and feel empowered to manage and control the provision of such services.

- Communities that value their water system highly enough to select an institution such as a water committee, to ensure fair representation of all community members on the committee, to hold the committee accountable in performing their responsibilities and to pay for their water and sanitation services in a way that enables them to adapt the kind and level of services provided depending on the situation at that time. This means that they are able to better handle their water and sanitation services as times change from normal to crisis and that they are able to handle their needs with less reliance on help from outside the community.

- Systems that aid in the better management of the water and sanitation systems are only useful if the end user sees its value and is willing to invest in it. For community-based systems, the community has to see the value of the system as well as ensure that there is a responsible and accountable institution (e.g. water committee) that is already managing the water and sanitation system well. For the purposes of a borehole distant monitoring system, a community water association, committee or service provider has to already be efficient and responsible in its functions of water distribution, fee collection and hygiene promotion service for the system to add value.

Recommendations

- Innovative technology for the water sector must be implemented according to the current water sector structure making sure vertical and horizontal linkages are maintained and that all stakeholders are aware of their role in the system and have the capacity and willingness to keep the system functioning and use it to add value to their contribution to the water sector.

- In a borehole distant monitoring system, a community needs to realize the value of spending money to buy a phone and regular airtime, pay a fulltime operator and use information received from the system wisely.

- At a county level, the CWO should train communities on the system, respond to requests sent by SMS and be responsible with the data submitted monthly by using it as a knowledge base for the water systems in their region and as a platform to promote learning and share good practices.

- At a national level, the water sector stakeholders have responsibilities similar to those at the regional level with an added responsibility for continued investment on systems that enable communities better manage their water and sanitation services with the ability of making the services flexible and adaptable.
BACKGROUND

The 2008 – 2009 Kenya Demographic and Health Survey (DHS) states that education is a key determinant of a person’s lifestyle and status in society (Government of Kenya National Bureau of Statistics 2010). The survey further says that level of education has a great influence on a person’s behaviours and attitudes. Results from the survey show that for people 65 and over, 77 percent of women have never been to school, compared with 40 percent of men. The survey further shows that twice as many women and men in rural areas have no education at all compared with those in urban areas. North Eastern province has 69.6%, the highest proportion of those without education, and Nairobi has the lowest at 6.1. This disproportionate lack of education is worse in the ASALs, which make up most of North Eastern Province.

SERVICE DELIVERY

Education in Kenya is delivered through a nationally set curriculum developed by the Kenya Institute of Education. The government-endorsed education program is currently called the 8-4-4 system which means eight years of primary school education, four years of secondary school and four years of college or university. Basic education starts at the age of three at which a child attends two years of pre-school then enters primary school for eight years. The eighth year ends in Standard 8 in which the student takes the Kenya Certificate of Primary Education (KCPE) examination and then proceeds on to four years of secondary school. After the fourth year, the student takes the Kenya Certificate of Secondary Education (KCSE) examination and then proceeds to another four years of university education.

Education is delivered in schools that can either be day, boarding or mobile. In day schools students go to class daily and leave at the end of the school day to spend the night at home. In boarding schools, students spend the night at the school and are released for holiday breaks in April, August and December. Many boarding schools also allow the children to take short breaks in the middle of the term. Mobile schools are schools set up for mobile populations where a teacher is posted within the community to deliver education ensuring that the school moves with the population. Mobile schools are meant to be an entry point for children in mobile populations to conventional day or boarding schools.

As of January 2003, Kenya started the Free Primary Education (FPE) program where primary school education was made free of charge to everyone.

EDUCATION IN THE ASALS

According to the Vision 2030 for the Development of Northern Kenya and other Arid Lands learning facilities in the ASALs are inadequate. For example there is no university and only one teacher training college, one technical training institute, and very few TIVET institutions (Technical, Industrial, Vocational and Entrepreneurship Training) (Government of Kenya 2011a). The school dropout rate in North Eastern is 6.6% compared to the national average of 3.5%. Only 42.3% of students in the north completed their primary school cycle in 2007, compared with 81% nationally (Ruto, S. 2009). Also, for 60% of students in Northern Kenya there is no school within 6km and for nearly 50% there is no school within 11km (Government of Kenya 2006). As discussed earlier, the ASALs of Kenya are mostly occupied by nomadic populations that tend to move from one place to another in search of water and/or pasture for their livestock. The mobile nature of
these populations is a major constraint in providing uninterrupted education to the children of these populations. In addition to mobility, other constraints are child labor where children have work commitments at home and so cannot attend school, lack of a curriculum relevant to the nomadic lifestyle and a low level of funding, equipment and staffing in schools in the ASALs (Fitzgibbon, 2011). These challenges make delivering education to mobile communities and residents of the ASALs difficult and calls for the education system to be adaptable and flexible in its delivery of education.

As an adaptability measure, the use of mobile schools is widely accepted as an approach that delivers education to school going children especially those in mobile communities. Mobile schools are designed to be located within a community and to move along with the community in it migrates. They are modeled on the system of dugsi schools in which a Koranic teacher travels with each community and provides religious instruction at hours convenient for the children in the context of their family labor responsibilities. In Kenya, mobile schools are linked to a sedentary school nominated by the Ministry of Education and supervised by the head teacher of that school. Mobile schools are taught by a teacher posted to the school by the ministry and mandated to move with the community as it moves.

In-depth interviews with field-level experts found that the effectiveness of mobile schools is heavily affected by low supervision, unmotivated teachers, lack of a suitable curriculum and lack of schoolbooks and supplies. Mobile schools target lower primary school students who should then move to standard four at a conventional school (Kratti, S. and C. Dyer 2009).

Another way of delivering education to people residing in the ASALs is the use of boarding schools. In the ASALs, the government and other organizations run low cost, subsidized boarding schools where parents are encouraged to send their children to boarding school with the aim of keeping them in school as the family migrates. To increase the boarding schools’ appeal and flexibility to pastoralists, the Kenya Policy Framework for Nomadic Education suggests a 12-month a year boarding school giving the option to parents on whether their children go home for holidays or not. Boarding schools are sedentary and cause separation between children and parents and also take children out of pastoralism. As discussed later, Do No Harm principles as to how the schools affect the pastoralist lifestyle of the families that attend them should be addressed.

Another approach that has been suggested as a way to deliver education in an adaptive and flexible manner is through distance learning. Distance learning uses technology such as radio and mobile phones to deliver learning with no face-to-face interaction. When implemented correctly, distance learning can educate children while still allowing them to attend to their household duties as well as maintain the family’s migratory lifestyle, if appropriate.

**POLICIES**

**A National Policy Framework for Education (NPFE)**

The National Policy Framework for Education (NPFE) drafted in May 2012 is aimed at introducing reforms to the education sector targeted at aligning the sector to the Kenya Constitution 2010 and the Vision 2030. The policy addresses three main sets of issues relating to Education in the Constitution: the bill of rights, devolution of counties and decentralization, and management of education basic service delivery.

Under the bill of rights, the policy writes that the sector will take a rights approach to free and compulsory education and will be prepared to provide education and related services to a civil society empowered by a new constitution and that is aware that education is their right under a constitution passed in 2010.

Under devolution of counties the policy stipulates that certain key issues should be addressed urgently as they have many implications to the education sector. The first issue is education as a national responsibility at which the constitution states that education and resource distribution is a responsibility of the national government but the counties will have the role of supervising and providing direct day-to-day support to their education system.

Under management of education basic service delivery, the policy says that management issues to be addressed are whether each county will have its own education
unit and how it will be funded, the Teacher Services’ Commission and the reduction and combining of departments due to a constitutional reduction in ministries that could affect education departments.

Kenya Policy Framework for Nomadic Education

The policy for nomadic education recognizes that the needs for education for the nomadic communities are unique and the government should develop education delivery mechanisms that factor in these needs. The policy also writes that the government realizes that education cannot be provided to nomadic communities in isolation from their spiritual, social, security, moral and other developmental concerns. The policy also provides guidelines for the coordination and harmonization of the delivery of educational services to nomadic communities in Kenya.

One of the guidelines provided in the policy is the adoption of a 12-months open school system in low cost boarding school that ensures that students have uninterrupted learning even when their families migrate with livestock in search of water or pastures.

The policy also suggests the establishment of the National Commission for Nomadic Education in Kenya (NACONEK). As per the policy, the mandate of NACONEK is to:

- Formulate policies and guidelines for nomadic education in Kenya.
- Mobilize resources for nomadic education
- Coordinate and evaluate the activities of all agencies involved in nomadic education
- Implement guidelines across county borders
- Establish linkages and partnerships
- Prepare reliable statistics for children and teachers in the nomadic education system

Getting to the Hardest-to-Reach: A strategy to Provide Education to Nomadic Communities in Kenya through Distance Learning

Developed in 2010 by the Ministry of State for the Development of Northern Kenya and other Arid lands, the strategy proposes a distance learning method through the use of educational radio for hard to reach pastoralist communities. The strategy proposes that the most effective education model for pastoralists' children is one that delivers quality education and does not take the children out of their pastoralist lifestyle.

The strategy suggests that the formal sedentary school based system has the following consequences for pastoralists:

- The pastoralist household is split up in a way that makes school attendance easier but makes running a pastoral enterprise more difficult
- Herd management and livestock mobility patterns have to be modified in ways that have negative impact on their productivity and ultimately on the reliability of the production system
- At an early age a separation is created between educated children who are taken out of pastoralism to go to school and lack the skills and experience necessary to be effective producers in a pastoral economy and the other children with skills in animal production but little experience of the world outside pastoralism yet a combination of both would create a very vibrant pastoral economy

To educate children and still allow them to remain in pastoralism, the strategy suggests distance learning through educational radio receivers and mobile phones.

The strategy is suggested to be implemented by the NACONEK which at the time of this review was still under formation and not yet functional.
CASE STUDY: ENABLING ADAPTABLE EDUCATION BY ESTABLISHING SCHOOLS ALONG MIGRATORY ROUTES

A case study of the education system of the Diocese of Turkana reveals how the government and other organizations can deliver education to mobile nomadic populations.

Before establishing a school, the organization, which is embedded in the community, takes time to study the migratory route of the community it intends to serve. The organization then creates a water point in an area suitable for a school. Creating a water point in a migratory route acts as a guarantee that the mobile community will settle because of access to water for their livestock.

ADAPTABLE IMPACTS

Once a mobile community sends its children to a school located in its migratory route, the community is made aware of the benefits of keeping their children in school and allowing them access to undisrupted education. Information received from key informants indicated that the community will in most cases keep their children in school. The men migrate with the livestock while women are left behind to take care of the children who remain in the school. The reason for the community splitting up is that they know that the school is on a migratory route and so the people that migrate will return to the area regularly.

Left behind women and children results in such children having access to continuous education. Further research found that most communities use such schools on migratory routes for nursery and lower primary education and then send their children to boarding schools from standard four. Once a child is sent to boarding school, the likelihood of the child finishing the primary education cycle is higher than for a child who is not sent to boarding school. Anticipating that the community will migrate away and mobilizing them to leave behind women and children early are keys to ensuring that school age-children have access to continuous education.

Establishing a water point and school on the migratory route of a mobile community indicates that the water needs and mobile behavior of the community are understood and considered. Establishing a water point as an attraction to the community indicates that it is understood that the mobile community values water for their livestock and will probably settle by the water point to give their livestock have access to the water for a few days.

Setting up a school on a migratory route does not compromise the coping mechanisms or migratory needs of a community. The community remains mobile with the slight difference of leaving behind women and school-age children. However, more research should be done on whether any harm is done in splitting families when the men migrate and leave behind women and children. Furthermore, more research should also done to identify whether any harm is done when the women and children who are left behind are taken out of pastoralism to sedentary life.

RESILIENCE-STRENGTHENING

Once a school is established, a teacher is posted. This teacher, who is initially a catechist, lives within the community and does not concentrate on education for children. The catechist also conducts adult education on matters relevant to the community such as drought preparedness, animal health and climate change. With time, as the community gets more established the numbers of teachers are increased to a level appropriate to the size of the community. Eventually all members of the community get knowledge and education on drought preparedness, animal health and climate change that increases their ability to adapt.

The process of studying the migratory route of mobile communities and establishing a water point and a school increases their access to water and education. Kids enrolled in school receive lunch and snacks that improve their nutrition status. The establishment of a school also includes the building of toilets to which members of the community have access.
Furthermore, information received from the field indicated that when a community leaves behind women and children, services such as shops targeted at the community left behind develop. These shops enable the community to increase their ability to meet their own needs by having access to household goods and livelihood inputs. Once such services develop, a sedentary community is then formed that leads to further services from the government such as the recognition as a location and the appointment of an area chief. Once an area chief is appointed, other government services such as health and infrastructure development follow.

The decision to leave behind certain members of the community is made in a participatory manner in a meeting called by the community leaders. The people to be left behind have to agree to remain behind with the understanding that they are being behind in an area where those who migrate will return to regularly.

Equitability
The Diocese of Turkana’s model of setting up schools in the migratory routes has worked well to reach mobile populations who may not otherwise be reached by the regular school system. The diocese does not discriminate on the basis of religion.

Sustainability & Cost-Effectiveness
The Diocese of Turkana education model is highly sustainable because the organization sets up an office or parish in the location in which it establishes a school. A catechist is initially posted in the school and is mandated to live within the community. The catechist’s main duty is to promote Christian living in the community in which he or she lives and to be fully accessible to the people. This means that even during times of disaster or insecurity, there is always somebody in the office. As long as the government cooperates and sends teachers to the school, the school will remain open and functional.

The model of setting up schools along the migratory routes of mobile populations is cost-effective because the government does not incur any additional costs. When a government makes a decision to build a school for a particular population, the costs of setting up the school should already be budgeted. As the school is built, the only difference is the decision to build it on a community’s migratory route.

**KEY MESSAGES**

- The government and education sector have documented and acted upon the unique education needs of people living in the ASALs. To address the unique needs, the government has formed the National Commission for Nomadic Education in Kenya (NACONEK) whose focus is to promote education and increase access to the people in the ASALs

- The Diocese of Lodwar makes a conscious effort to build schools for mobile communities by selecting an area on a migratory route, building a water point, then a school. The water point acts as an attractive feature for the mobile community to settle in that area

- Having a school on a migratory route ensures that the mobile community has access to education while they are settled in the area and the community is made aware of the benefits of keeping their children in school

- Those that decide to keep their children in school leave behind school-age children to attend school and women to take care of them. This then leads to the development of commercial and government services such as shops and schools and health centers

- More research is recommended to address the effect of splitting families and the effect of the women and children who drop out of pastoralism because of school.
LESSONS LEARNED AND RECOMMENDATIONS

Lessons learned

• The education sector in Kenya has undergone various reforms in the last 10 years. In 2003 the government made primary education free and in 2010 a new constitution was adopted that made basic education a right of all Kenyans.

• The sector has made progress in disaster risk education with the development of a disaster risk education program for pupils and teachers. The program addresses most disasters faced by Kenyans and is offered as an elective in the life skills program.

• The sector has an Emergency Preparedness and Response Plan (EPRP) but in-depth discussion with the Ministry of Education found that the plan is in draft form and not operational.

• Mobile schools are an effective way to provide continuous education to children of nomadic families but their effectiveness is affected by lack of support and supervision from the ministry, lack of school supplies and unmotivated teachers.

• Sedentary schools build on nomadic migratory routes are effective ways of providing education to children of nomadic families but more research is recommended to address the No Harm principles of splitting families and encouraging a sedentary lifestyle.

Recommendations

• The ministry’s DRR program should be incorporated into the testable nationwide educational curriculum and should be testable.

• As part of the DRR program, the ministry should offer tailor-made additional DRR education as part of life skills to students based on their specific vulnerabilities. For example students in the ASALs should receive additional education on drought and students in the coastal and low plains should receive more information on flooding.

• The sector should revitalize the Emergency Preparedness and Response Plan, finalize and revise bi-annually according to the short and long rains outlook. Lessons learned from the nutrition sector has shown that having a current and vibrant EPRP has made the sector more coordinated, organized and has reduced duplication of efforts of implementers.

• The sector should conduct a review of the current status of mobile schools and teachers and put in measure to improve their effectiveness in providing good quality education to children.

• Research should be conducted on sedentary schools built on nomadic migratory routes to address and document the Do No Harm principles of splitting families and encouraging a sedentary lifestyle.
SOCIAL PROTECTION SECTOR

BACKGROUND

Vulnerability to drought is increased by low asset possession, low and variable income, living in the ASALs, high number of dependents and weak social networks (Omiti and Nyanamba 2007). Social protection programs are designed to increase household income and asset possession and in return reduce their vulnerability to drought.

Social programs in Kenya range include non-contributory programs focusing on health and nutrition, agriculture, education, relief and recovery and cash transfers, contributory programs such as the National Hospital Insurance Fund (NHIF) and National Social Security Fund (NSSF) and the Civil Service Pension Scheme.

Some notable programmes currently running in Kenya include the Cash Transfer Program for Orphans and Vulnerable Children, the Hunger Safety Net Program and the Older Persons Cash Transfer Program. The government runs these programs with its own funds and with support from its developmental partners.

POVERTY IN ASALS

The ASALs of Kenya are located in an area that has suffered from many years of neglect and whose developmental statistics are lower than that of the national average. According to the National Policy for the Sustainable Development of Northern Kenya (Government of Kenya 2012a) access to transport, water, heath and electricity and school enrollment and attendance are some of the many indicators that are lower in the ASALs compared to the national average. The policy makes it clear that the government is aware of the underdevelopment of the ASALs and is creating special programs to develop the area to a level similar to the rest of the country. For example, in addition to the national country Vision2030, the government has written and committed to a 2030 Strategy specific to Northern Kenya and other arid lands (Government of Kenya 2011a).

A combination of low development indicators, lack of income and livelihood diversification and being located in a geographical location that experiences recurring drought, the people living in the ASALs are more vulnerable to drought than people living in other areas of Kenya. The vision of the 2030 strategy specific to northern Kenya and other arid lands is that by the year 2030 their vulnerability to drought will be greatly reduced and the area will be as developed as the rest of the country.

Social Protection Programs in the ASALs

Due to a history of neglect and vulnerability to drought, the poverty levels of the people residing in the ASALs of Kenya have been recorded to be higher than the national average (Government of Kenya 2011a). The government and its development partners have put some social protection programs in place to increase the resilience of the people residing here against droughts.

One such program is the Hunger Safety Net Programme (HSNP) implemented in the counties of Mandera, Wajir, Turkana and Marsabit where most vulnerable households in these counties get cash once every two month for them to use to satisfy their most crucial needs. Currently the program is in phase II which runs from 2013 – 2017. An evaluation of the HSNP phase 1 program showed that the program have positively contributed to the overall wellbeing of the beneficiaries including increasing access to social services such as education and health and increasing the ability of asset accumulation. (Hurrell, and Sabates-Wheeler 2013).
Another program is the Kenya’s Cash Transfer program for Orphaned and Vulnerable Children (CT-OVC). The government implements this program in collaboration with UNICEF. This program is nationwide and targets households considered very poor, that have an orphan as a regular member of the family or whose primary care giver is a child. The program gives cash to the beneficiaries once every two months to spend on their basic needs.

**Policies**

**National Social Protection Policy**

The Kenya National Social Protection policy defines social security as “policies and actions including legislative matters, that enhance the capacity of and opportunities for the poor and vulnerable to improve and sustain their lives, livelihoods and, welfare, that enable income earners and their dependents to maintain a reasonable level of income through decent work, and that ensure access to affordable healthcare, social security and social assistance”.

The goal of the policy is to ensure that all Kenyans live in dignity and exploit their human capabilities for their social and economic development. The policy discusses in details what the government is doing to improve social protection measures based on three categories namely social assistance, social security and health insurance. The policy further writes that the National Social Protection Council (NSPC) will be the main policy setting and coordinating body.

Other social protection policies and laws include The Children’s Act (2001), the National Policy on Older Persons and Aging (2009), the National Policy on Youth (2006) the National Gender Development Policy (2000) and the Persons with Disabilities Act (2003).

**Case Study: Resilience-Strengthening through PRRO**

A case study of WFP’s Protracted Relief / Recovery and Resilience Operations (PRRO) in the ASALs was conducted as part of this review. PRRO supports various social protection programs through NGOs and the government.

PRRO programs are divided into the following five main categories:

- Rainwater harvesting
- Water for humans and livestock
- Diversification of food and income sources
- Environmental degradation
- Linking people to markets

Projects visited take the approach of communities developing and managing their own assets through food for work or cash for work. Before developing a project, the community assembles to decide the asset that they would like to build depending on their needs.

For work on the asset, people are paid with food, cash or a combination of both depending on the status of the market. People are paid with cash if there is sufficient food in the market and with food if food in the market is insufficient or too expensive. Some of the assets visited included a water pan, an irrigation scheme and a borehole.

**Resilience Strengthening**

Communities that build and manage their own assets benefit from the increase in knowledge on how to build the asset such as skills in water harvesting or irrigation. With close management of the asset, the community develops knowledge on how to observe the water level and use that observation as an early warning sign. For example communities that manage water points are able to tell when the level is low due to a failed rain season or those managing irrigation schemes observe drier crops or failed harvests.

Communities that manage water points ensure that their members have access to the asset they own and manage. This means that those that manage water pans or boreholes have access to water for as long as the water point has water. This also means that they are at an advantage when other communities move into the area and would like to provide water to their animals from the water point. Communities visited for this review said that in such a case, the host or owner of the water point would provide water to the migrant community for a fee.
Money collected would be used to improve the asset for the benefit of the community. One example is piping water from a borehole to community members located far away.

Ownership of an irrigation scheme worked as a pull factor for social services due to a vibrant market and the settlement of people. One such community visited said that since they have had the irrigation scheme, their market has grown to a point at which they have new people moving in to settle in the area. This has resulted in the growth of other service-related providers to a point at which the government recognized the area as a location and sent a chief. The arrival of a chief was followed by the construction of a school and then a health center.

Communities that owned assets also felt an increase in their household income, especially those that had assets that had a direct contribution to income such as an irrigation scheme. An increase in household income meant that they were able to send their children to low-cost boarding schools, seek medical care for themselves or their animals when needed and send family members away from crisis areas during a drought as a way of coping.

The decision on the kind of asset to be developed by a community is made through a participatory risk analysis process in the community. Once an asset is developed, decisions affecting the asset are made by the community through a participatory process in a meeting led by the community leader or asset committee.

**Equitability**
Due to the nature of the work involved, asset-for-work programs may exclude people unable to perform the work required such as people with disabilities or people unable to present themselves to sign up for work. To promote equitability, the community should make great efforts to include all members of the community so that the whole community feels part of the development and ownership of the asset.

**Sustainability and Cost-effectiveness**
Since the assets are owned and managed by the community, such projects are sustainable for as long as the community is in the same area as the asset and remain organized. Once an asset is built and is productive, benefits to the community for developing the assets may not be so many. However, for assets where work is ongoing, such as an irrigation scheme, more research is recommended on the cost-effectiveness of giving community members food or cash for them to build assets.

**KEY MESSAGES**

- The government makes it clear that it recognizes that without reducing the poverty rates of the people in Kenya, it will be impossible to achieve vision 2030.
- Social protection programs increase the household's income level therefore increasing the resilience of a household by increasing their access to basic services such as education, health and WASH

**LESSONS LEARNED AND RECOMMENDATIONS**

**Lessons learned**

- The sector has an enabling policy environment that allows for good coordination and standards setting by a national body
- The government has shown commitment to social protection programs especially for vulnerable people residing in the ASALs of Kenya
- At a county level, officers in the ASALs in charge of social protection programs should be educated on their role of detecting early warning signs related to an increase in basic needs and how to
act on them. For example, an increase in demand for food at food feeding centers, or an increase in street children could indicate stress in a certain location.

- Social protection programs are a good way to increase the household income of a community or increase their access to basic services.

- Asset-for-work programs have the indirect benefit of attracting people and service associated with the asset and may eventually lead to an increase in access to social services.

**Recommendations**

- A majority of asset-for-work social programs tend to target agro-pastoralists who are comfortable leading a sedentary life. However, more research should be done on asset-for-work programs that are suitable for pastoralists.

- Efforts should be made in communities to encourage them to develop creative ways of including vulnerable members of the community who may not be able to perform conventional physical work related to the asset.
REFERENCES


Government of Kenya (2012c), Kenya National Water Policy

Government of Kenya (2012d), Kenya Health Sector Strategic and Investment Plan


Government of Kenya (2012f), National Policy Framework for Education

Government of Kenya (2012g), National Social Protection Policy

Government of Kenya National Bureau of Statistics (2010), Kenya Demographic and Health Survey


OHCHR (a), International Covenant on Economic, Social and Cultural Rights (accessed at http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx)


### Marsabit County, September 9 – 13, 2013; List of people met

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<th>Name</th>
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<td>Dibo Dabasso</td>
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### Turkana County; September 16 – 27, 2013; List of People Met

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EXECUTIVE SUMMARY

The report focuses on the Karamoja region, the most drought-prone area of Uganda. Compared to other regions, Karamoja’s population has higher poverty indicators: in 2011, 75.8% were living in extreme poverty, only a 22.8% literacy rate and the highest Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM) rates for both stunting and underweight categories. It is a semi-arid region with low annual rainfall and cyclical drought. Although the population is primarily agro-pastoralist, there are three major livelihoods zones: agriculture, agro-pastoral and pastoral.

Social service accessibility is hampered by poor infrastructure. The rural poor often rely on the local market for their basic needs. The increasing regularity of drought affecting the cattle corridor has been found to be the most significant climate-change impact affecting Karamoja. Flooding also contributes to erosion, land degradation, displacement, increased crop loss, water-borne epidemics and damaged infrastructure and livelihoods.

Health and Sanitation sector: In the health and sanitation sector, Karamoja has the poorest health indicators in the country. Only 24% of the population has access to and utilizes basic health services compared to the national rate of 72%. Low coverage problems are compounded by lack of awareness on health-related matters and insufficient funding for the sector despite an increased government budget allocation for health. Reviewed policy documents emphasize the importance of access to health care and clean water, the need to rehabilitate and equip existing facilities and the need to train and equip Village Health Teams (VHTs) and Health Unit Management Committees. Short case studies focus on improved knowledge and ability to adapt through mTrac, One Health and faith-based implementation of Family Health Days. mTrac is an SMS-based health system strengthening tool designed for real-time data collection, verification, accountability and analysis for health management information systems. It allows for health service early warning and enhances community preparedness to meet district and community needs by enabling real time disaggregated data on disease outbreaks and stock levels to trigger actionable response. One Health enables formalized collaboration and communication channels between VHTs and CAHWs to strengthen early warning and response. This type of intervention increases the knowledge of health system personnel on traditional and local coping mechanisms to address the interface between livestock, human and wildlife diseases. Given the limited exposure to mass media in Karamoja, Family Health Days (FHDs) are conducted as an outreach program to increase accessibility of preventive health services and information and to improve health seeking behavior through localized service delivery. Using faith-based organizations as an entry point can help to improve initial access in remote locations. Real-time information gathering in FHDs helps service delivery to adapt.

Nutrition sector: Despite recognition of the importance of food and nutrition in government policies, Karamoja lags behind the rest of the country in nutrition with significantly higher SAM rates for the underweight category. Current Uganda health system weaknesses include inadequate financial investment, low capacity at health facility level and the lack of knowledge transfer of preventative healthcare into practice at the household level. In a case study, the Karamoja District Local Government Nutrition Surveillance system was shown to inform nutrition care and support interventions, allow for mitigation based on trends analysis and targeted response activities and improve nutrition programme evaluation. It increases the resilience and adaptability of populations by triggering early action in response to malnutrition indicators and enhancing contingency planning. Care Group Models implemented by Concern Worldwide aim to improve health and nutrition practices by targeting the weaknesses of the health system and prompting behavioural change through the use of community volunteers who promote appropriate health-seeking behaviour among households. It sustainably uses a multiplying effect to create equitable reach and is based on communication.

WASH sector: Although Uganda is on track towards achieving MDGs related to sustainable access to safe drinking water and sanitation, specific challenges are faced in Karamoja. Agriculture at the household level is largely rain-fed, leaving families susceptible
to cyclical trends and shocks. Water quality in this region has been greatly compromised by a number of factors such as lack of separate animal watering points, poor siting of water resources and poor sanitation and hygiene practices. The government recognizes the need to enhance the functionality of existing facilities, promote harvesting technologies and provide sufficient water for production and consumption and sanitation facilities. The jointly implemented **ACF-IUCN Integrated Water Resource Management (IWRM) and Natural Resource Management (NRM)** approach aims to build people's resilience to drought through an improved understanding of the status of natural resources and the underlying causes of vulnerability, improved institutional capacity and greater knowledge of integrated NRM within policy forums. Ultimately, by increasing the communities' knowledge, the project aims to enhance the use of IWRM to prepare for and mitigate the impact of dry seasons and drought by feeding into existing surveillance and early warning systems indicators.

**Social Protection sector**: A government Social Protection Policy Framework in development recognizes the need to provide non-contributory social security benefits to the most poor and vulnerable citizens. Additional protection policies specifically relate to the widespread Kamamoja issues of internal migration and violence against women. **Senior Citizen Grants** provided as part of the five year Expanding Social Protection Programme are cash transfers which provide an alternative or complimentary coping mechanism and which ensure a minimum level of income security, thus increasing the beneficiaries' resilience. Cash transfers can have a multiplier effect when such money is spent locally on basic needs such as food and household items, social services such as healthcare and education or productive assets. In Karamoja, 16% of the Senior Citizen Grants' beneficiaries allocated a portion of the cash transfers towards savings for purposes such as emergencies, productive investments, and education needs. Out-migration of Karamojong children is common due to food insecurity, single parenthood and ethnicity and community disintegration. Providing basic social services for exploited and trafficked Karamojong street children through **dual location service delivery** allows for undisrupted provision of these services. In doing so, it prevents using negative coping mechanisms such as out-migration during times of drought and promotes self-help coping skills to better respond to future shocks and address root causes of vulnerability. Community mobilization can promote change related to knowledge, attitudes, skills and behaviour that prevent violence against women and HIV transmission. **Community Parliaments** encourage communities to hold the government accountable for the basic social service provision.

**Education sector**: Karamoja is also lagging in the overall improvement in Uganda's education. In 2011, Karamoja had the highest household percentage of those 6 years and over above who have not accessed formal education (58.1% for females and 45.3% for males). In 2013 the sector registered a reduction in P1 entry level enrollment, which was attributed to acute food shortages and reduced food rations at school. No specific case study was reviewed due to time restrictions.
RISK PROFILE

Disasters erode household and social services’ financial, natural, physical, political, social and human assets, leaving people and services more vulnerable to future shocks and trends. Resilience of a population is dependent on timely and/or continuous access to quality basic social services, in sectors such as education, health, sanitation, and social protection, in order to address the root causes of vulnerability.

Uganda ranks as the country 11th most at risk of disaster-induced poverty (Shepard et al, 2013) and 19th of 184 countries in terms of susceptibility to drought. (Prevention Web, 2013). Karamoja, located in the north-east of the country and the focus region of this Review, is the most drought-prone region.

Karamoja

Uganda has experienced an unequal spread of poverty reduction with a significantly higher Gini coefficient value in Karamoja. In 2011, Karamoja had 75.8% of its population living in extreme poverty (MFPED, 2012), the lowest literacy rate of only 22.8% (UBOS, 2012) and the second highest increment in HIV prevalence rate between 2005 and 2011 (UAIS, 2011). The most recent Demographic Health Survey indicates that Karamoja had the highest Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM) rates for both stunting and underweight categories (UBOS, 2012).

Social service accessibility for hard-to-reach communities is hampered by poor infrastructure. In 2009, Karamoja had less than 2.5 km of paved road in the entire region, while other regions had an average of 15 metres per km2 (Geldorf et al, 2012). With few self-sufficient households, the rural poor, such as those living in Karamoja, tend to rely on the local market for basic needs, exposing them to external shocks such as food price hikes or inflation. The 2011 food price hikes had a greater impact on the poor as changes reduced the purchasing power of the poor by 36%, while the average purchasing power reduction was between 5 and 20% (MFPED, 2012). Purchasing power is not limited to food but also reflects the limited financial assets available to allow for access to basic social services.

Karamoja is a semi-arid region and, although the population is primarily agro pastoralist, the region consists of three major livelihood zones including agriculture, agro-pastoral and pastoral. Given the high proportion of the country’s population that depends on rain-fed agriculture, livelihoods and food security are particularly vulnerable to the effects of climate change.

The region now comprises seven districts covering 27,511sq. km, with a population of approximately 1.1 million. The recent increase in division of districts from five to seven was reportedly for the benefit of basic service delivery. This further division has been criticised by some who believe that monitoring and evaluation systems have become compromised, human resources are overstretched and that the real reason for this increase is political patronage.

Drought

Drought has become a regular occurrence that impacts the cattle corridor stretching from Western and Central to mid Northern and Eastern Uganda. According to the UN Joint Programme on Climate Change in Uganda, drought is the most significant climate change impact facing Karamoja. It has significant implications for all social services sectors, food security, livelihoods and for coordination and planning for building the resilience of the population and region (GoU, 2010). The region is characterised by a harsh climate with low annual...
rainfall and cyclical drought. It is anticipated that Uganda is likely to become more drought-prone with the extension of the Sahara towards the South and on-going challenges of environmental degradation. The frequency and intensity of droughts are expected to increase and the resulting reduced availability of ground and surface water will have severe implications on basic social service delivery.

The high risk and vulnerability profile of Karamoja led to the creation of a Drought Early Warning System for the region. A National Meteorological Authority is due to be formally established in 2013 which should further enhance early warning. The Government's Karamoja Integrated Development Plan (KIDP) (2011-2015) notes that ‘severe droughts have decreased household crop production, while also diminishing the pasture available for livestock. Unless urgent intervention is done, there is a danger that the process could precipitate a more intense conflict, leading to displacements and compounding any food-insecurity crises arising from natural disasters’ (MKA, 2011).

**Floods**

As with drought, there has been a predicted increase in the frequency and intensity of flooding in the region. This flooding will cause erosion and land degradation, force displacement, increase crop loss, augment water-borne epidemics and incidences of malaria and damage infrastructure and livelihoods. As floods destroy public health facilities such as water sources and sanitation facilities, enhanced natural resource management practices and risk-informed public and private investment are particularly needed in flood prone regions. Heavy rainfall causes roads to often become impassable in Karamoja, presenting major logistical issues for social service access and delivery, particularly with regard to outreach services. Risks of flooding can be managed through timely and reliable forecasting, monitoring of seasonal patterns, and sufficient, ecosystem-based drainage systems. Accordingly, they should be considered during social service location and infrastructure development and repairs (OPM, 2010). Heavy rainfall also presents an opportunity to increase access to water resources for social service delivery through water harvesting, particularly at locations such as education and health facilities.

**Security**

Although the security situation has improved in Karamoja in recent years, highly sensitive issues for women, men, boys and girls remain, which should be acknowledged in service delivery and resilience programming. These conflict and insecurity related issues result from repeated exposure to serious violations, sexual and physical abuse and uncounseled post-traumatic stress disorder coupled with prolonged under- or unemployment, low adaptation skills and negative coping mechanisms (Geldorf et al, 2012). Trauma is often passed through generations (IPC, 2010). If not addressed, whole communities can relive the burden of conflict for generations to come, undermining all on-going and future interventions in the region.

Service delivery can be affected by on-going insecurity and theft with sporadic cattle-raiding still occurring and petty theft said to have increased recently. Land grabbing can also lead to such problems as violence and inability to meet household needs and access social services.

Karamoja societal norms are currently in flux due in part to recent decreases in livestock and associated livelihood diversification, power shifts in traditional decision-making archetypes, land tenure issues and the African Union Policy Framework for Pastoralism in Africa not being translated at Government policy level. Though certain aspects of social protection are reviewed, conflict management and security with regard to DRR and service delivery were outside the scope of this study.

**Gender inequality and age**

Gender inequalities continue to permeate across all levels of society and sectors within and beyond Karamoja. The lower status of women and children in traditional Karamojong society is paralleled in descending access to food at household and community levels, affecting their nutrition and health status (C&D, 2010). Women have lower literacy levels than men in the region (UBOS, 2012). Girls and women require specific access to hygiene facilities in schools and health facilities. The domestic responsibilities and related time and lack of income constraints placed on women can limit access to social services. Due to
the flux in livelihood norms created by a decrease in livestock, the search for alternative income sources has led to an increase in income generating activities that place women at greater risk of violence such as brewing alcohol or collecting fuel for sale. The National Policy for Disaster Preparedness and Management indicates that women and children are the most vulnerable to the effects of disasters and underlines the necessity of understanding the ‘relevancy and implications of gender roles in disaster preparedness and management’ (OPM, 2010).

Nationally, 70.2% of the population are below 24 years old, of whom 50.5% are below 15 years of age (UBOS, 2012). There is a high dependency ratio on the working population and, as the population is set to increase, services which already often fail to systematically reach those most in need will become further stretched. Some social service delivery mechanisms such as those for education, targeted protection services and age-appropriate health services and messaging need to take the large population of youth into consideration in their design to ensure access and suitability.

**Governance**

The Budget Speech made by the Minister of Finance, Planning and Economic Development in June 2013 prioritised the enhancement of transparency and accountability to improve value-for-money and fight corruption vigorously in public service delivery. It also emphasized improving health, water and education quality and access, while noting challenges such as delayed implementation of government projects, lack of adherence to financial management procedures, corruption and misappropriation of public resources (MFPED, 2013).

Though it is widely acknowledged that the coordinating body for disaster activities should sit within government ministries, the National Disaster Preparedness and Management Policy designated administrator of the budget is not eagerly supported. This is largely due to claims in the 2012 Auditor General Report of misappropriation of donor funds from the Peace, Recovery and Development Plan aimed at improving the lives of the most vulnerable in the North and Karamoja regions.

According to the East African Bribery Index 2011, Uganda registered the highest bribery levels in the region with a value of 40.7%. Attributing such corruption levels to lack of political will coupled with low salaries for civil servants, the Uganda Police Force were found to be the most corrupt institution, followed by the judiciary, tax services and land services sectors. The registry and licensing services, city and local councils and health and education sectors were described as vulnerable (Transparency International, 2011).

Stories were heard during this Review about manipulation of data in order to sustain or gain increased funding at several levels of service provision. Veracity of such stories would lend credence to calls for an independent, qualified body and adequate technology and equipment to quickly verify disaster risk related data at local and national levels to ensure early response. It would also buoy calls for reforms in financing mechanisms to allow for greater transparency and accountability. The Government’s commitment to address the current weaknesses in public finance management will be a key determinant of effective future service delivery (MFPED, 2013).

**Finance**

Recurrent disasters have been assessed to annually cost Uganda USD 2.3 million annually (UNDP, 2013). Although activities outlined in the draft Implementation Strategy of the Climate Change Policy require approximately 1.6% of GDP, only an estimated 0.2% of GDP is budgeted for such expenditures (ODI, 2013). Likewise, public and private investment in Disaster Risk Reduction is inadequate and investment in social service sectors requires risk sensitivity in order to adequately build resilience to disasters. The National Disaster Preparedness and Management (DPM) Policy (2010) urges for the development of a National Disaster Preparedness and Management Fund Bill that would provide for an annual allocation of a minimum of 1.5% of the government’s budget. The DPM Policy also encourages contributions from international and other national development partners and notes that ‘a transparent mechanism of accessing resources from the fund should be worked out’. 

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The DPM Policy designates respective ministries as responsible for securing ‘adequate resources to implement disaster preparedness and management activities. Line ministries shall also plan and budget for disaster risk reduction activities within their respective ministerial mandates. Districts shall also integrate disaster preparedness and management into their development plans and budgets. Public-private partnership shall also be encouraged at all levels’ (OPM, 2010).

POLICY AND APPROACH TO DISASTER RISK REDUCTION AND SOCIAL SERVICES

Disaster Risk Reduction (DRR) policies and approaches are reviewed here in relation to social services and drought. Similarly, each sector chapter of this paper examines social service policies in relation to DRR, drought and vulnerable populations.

Uganda’s policies identifying Disaster Risk Reduction related needs, priorities and planned actions include the 2013 Statement to the Fourth Session of the Global Platform for DRR, the 2010 National Policy for Disaster Preparedness Management, Uganda’s Initial Communication to the United Nations Framework Convention on Climate Change (UNFCCC), the 2007 National Action Plan for Adaptation, the impending Climate Change Policy and Implementation Strategy and broader planning instruments such as the National Development Plan and Vision 2040. Disaster preparedness and climate change adaptation considerations are being integrated into a number of high-level strategies and planning documents.

The Statement of the Republic of Uganda to the Fourth Session of the Global Platform for DRR (2013) emphasised Uganda’s approach to DRR as being based on an integrated and multi-sectoral systems approach to the management of disaster and climate risks. The statement cited four key priority actions for a post-2015 Framework for DRR: 1) address the underlying causes of disasters; 2) strong demonstrated leadership on management of disaster risks; 3) build and strengthen partnerships; and 4) resources.

The statement noted the intention to enhance the national early warning system through the creation of an Early Warning and Emergency Coordination and Operations Centre. and emphasized that processes which enable work with communities and tap into local indigenous knowledge in the development of risk reduction measures and adaptation will be strengthened. This complements the urging of the Uganda National Adaptation Action Plan (2007) (NAPA) to consider coping strategies that communities had developed over time in response to climate variability when planning interventions in response to disasters such as drought and floods.

The National Policy for Disaster Preparedness and Management 2010 aims to create an effective framework through which to embed disaster preparedness in all aspects of development planning. The policy details the nature and extent of drought as a natural hazard and recommends specific policy actions in relation to addressing vulnerability to drought. Drought is also mentioned in related policy actions for famine and food security hazards. Karamoja is cited as suffering from extreme cases of drought and is also emphasised as one of the areas most prone to famine and flooding.
Policy actions for drought as outlined in the National Disaster Preparedness and Management Policy

i. Establish proper mechanisms for weather prediction, early warning and drought information message dissemination
ii. Enforce implementation and compliance to environmental regulations and laws
iii. Integrate environmental conservation in national development planning
iv. Map and zone drought prone-areas and agricultural viable areas
v. Strengthen research institutions for development of drought resistant crops and livestock.
vi. Prioritize programmes for small-scale irrigation/water for production
vii. Mechanise agriculture
viii. Improve land use/management
ix. Establish a National Data Base on drought
x. Integrate disaster management programmes into the National Water Action Plan with a view to provide water supply to disaster-prone areas
xi. Increase the level of community awareness on the importance of water and the need to conserve it, particularly with regard to hygiene and drought
xii. Promote an integrated approach by concerned government agencies and Non Governmental Organizations (NGO) in the implementation of water supply, conservation and protection of relevant catchment areas with a view to ensure availability of water in disaster prone areas

Policy actions for floods

i. Create awareness in the communities on flood risk reduction measures.
ii. Enforce river bank management regulations
iii. Protect and restore wetlands
iv. Ensure proper physical planning of rural and urban settlements
v. Gazette flood basins

APPROACH

The Disaster Preparedness and Management (DPM) Policy makes reference to declaring a state of national disaster when serious disruptions to most basic social services cause widespread human, material, economic or environmental suffering or losses to a population exceeding 50,000 people. This state of disaster can also be applied to a specific part of the country where losses or damage is caused to not less than one third of the population of that part of the country.

The National Disaster Preparedness and Management (DPM) Policy outlines guiding principles for the Ministry of Health as: i) The ministry responsible for health should develop an integrated approach for managing health related disasters, ii) Public education and awareness is of paramount importance if health related disasters are to be effectively managed and controlled, and iii) Early warning systems in the health sector should be strengthened as a preventive measure. The DPM Policy emphasizes the risk posed by floods to health facility infrastructure and the increased risk of water-borne diseases and malaria, which compounds community vulnerability to health hazards. It recommends addressing epidemics by contingency planning, structuring emergency health services, improving sanitation and hygiene practices and establishing early warning systems through routine surveillance and training in emergency operations.

The DPM Policy gives responsibility to the Ministry of Agriculture, Animal Husbandry and Fisheries and the local governments for dissemination of knowledge of principles of nutrition and of improved methods of production, conservation and distribution of food by developing or reforming agrarian systems. Policy action under the famine/food security sector includes ensuring that the implementation of food security and nutrition policy and guiding principles include the integration of Disaster Risk Management programmes into the Uganda Food and Nutrition Policy and its action plan.
The DPM Policy states the following guiding principles for the Ministry of Water and Environment: i) The maintenance of environmental quality should be a priority, ii) An integrated approach should be developed and encouraged for the successful management of environmental resources, iii) Effective linkages should be created with environment-related lead agencies and iv) Public awareness should be seen as a mechanism for reducing environmental degradation. The DPM Policy suggests that actions be taken to develop local-level public preparedness plans; land-use planning of flood plains, river banks and wetlands for settlement; early warning systems and hazard mapping; the development of environmental quality standards and environmental impact assessment.

Though social protection programming is not explicitly mentioned in the DPM Policy, the responsible Ministry of Gender, Labour and Social Development has guiding principles for gender analysis in programming and policy development; gender, age and disability sensitivity in public education activities; research on gender roles with regard to disaster risk management; and deliberate efforts to involve women, youth and persons with disability in disaster preparedness and management decision-making.

The Ministry of Education and Sports has guiding principles for disaster management in education as an integral and mainstreamed part of formal and non-formal education; targeted disaster education and public awareness programmes; strengthened traditional knowledge, attitudes and practices that improve disaster management and discourage negative cultural practices; research; and training programmes in disaster management. The DPM Policy recommends developing a curriculum for primary, secondary, tertiary and post-secondary education in disaster management, contributing to community education and public awareness on risk and hazards and ensuring that school buildings are built to withstand hazards.

The Uganda Disaster Risk Management and Climate Change Adaptation Communication Plan and Media Engagement Strategy (2014–2017) aims to provide a structure for risk reduction and resilience building in risk management; predict and identify events; provide early warning, prediction and preparedness information to mitigate disasters and climate change; enhance capacities of communities to be proactively involved in DRM; and create a platform for coordinated communication on DRM and CCA initiatives and approaches.

Uganda was also one of the focus countries contained in the Review of Current and Planned Adaptation Action: East Africa 2011. It notes that Uganda has integrated climate change adaptation into a number of national policy frameworks and is presently preparing a Climate Change Policy and Implementation Strategy (Adaptation Partnership, 2013).

The greater political will required to ensure implementation of the above policies is impeded by District, Sub-County and Village Disaster Preparedness and Management Committees remaining under-resourced, under-staffed, and lacking sufficient capacity and training to mainstream Disaster Risk Management into social service delivery.

The ACTED Drought Early Warning System (DEWS) has been in all seven districts of Karamoja since 2009. Its role is to provide timely warning on the increased risk of drought, which should then lead to early action measures being initiated. The system has yet to be tested with a drought scenario but is valued by communities, relevant district departments and development agencies particularly in relation to information management for the cyclical dry and rainy seasons in the region and related sector impacts. The DEWS collaborates with other surveillance systems in the region including the Integrated Food Security Phase Classification, Famine Early Warning Systems Network (FEWS NET), Nutrition Surveillance, and Conflict Early Warning and Response Mechanism, and has been increasingly integrated into existing Government structures.

Financial approach
The National Disaster Preparedness and Management (DPM) Policy (2010) notes that the ‘socio-economic and environment impact assessments shall be undertaken to guide planning and budgeting for Disaster Preparedness and Management’. District Disaster Management Committees have the responsibility to ‘develop and present to council district budget proposals for annual vulnerability assessment, risk mapping and
updates, preparedness and relief plans’. Furthermore, the DPM Policy calls for selected Ministries to ‘appoint a senior officer to serve as the sectoral disaster risk management focal point whose responsibilities will include mainstreaming disaster risk management in the Ministries’ annual work plan and budget and the promotion and coordination of disaster risk management amongst stakeholders of the sector’. Local Governments are mandated to ‘ensure that every district captures the major natural and human-induced risks and hazards that regularly affect the district in its annual work plan and budget’ (OPM, 2010).
HEALTH AND SANITATION

CONTEXT, POLICY AND APPROACH

OVERVIEW

Under the health related Millennium Development Goals (MDGs), Uganda has steadily made progress and remains on track in relation to the reduction of child mortality, the achievement of universal access to treatment for HIV/AIDS and the halting and reversal of the incidence of malaria and other major diseases. Progress is stagnant in relation to improving maternal health, has slowed in relation to universal access to reproductive health and has reversed in halting the spread of HIV/AIDS (MFPED, 2013). Although progress toward Uganda’s MDG water and sanitation targets has been steady, rural areas lag behind urban areas. Improved sanitation facilities are being used by 92.6% of people in urban areas compared to 72.8% in rural areas (MFPED, 2013).

The Karamoja region has the poorest health indicators in the country. About 100 children less than five years old dies each week from preventable illnesses. Despite a regional target of 60% of households with two insecticide-treated bed nets, only 3.4% of households in Karamoja have two such nets and 5.9% have only one. The region is 'off-track in meeting health and nutrition-related Millennium Development Goals and is the worst place to be a child, with highly elevated levels of early childhood mortality and morbidity' (MFPED, 2013). The above situation is attributed to low access and utilisation of basic health services, averaging 24% compared with the national rate of 72%.

The situation is compounded by a lack of awareness on health-related matters among local communities. Maternal mortality is at 750 per 100,000 live births, 50% higher than Uganda’s national average (MKA, 2011). Births in Karamoja are also least likely to be assisted by a skilled provider (31%) or in a health facility (27%) (UBOS, 2012).

Latrine coverage has increased in the Karamoja region from 8 to 12%, although the quality of toilets is still a major challenge (MWE, 2012). The situation is worse in some districts such as Abim, Kabong, Kotido, and Nakapiripirit where latrine coverage is below 10% and the 14% of people using soap is considerably lower than that target of 70% (MoH, 2010). Over 80% of households in Karamoja and West Nile regions do not have any hand washing facilities using water/soap/detergents after using the toilet. Safe disposal of children’s stool is also only 41% in Karamoja compared with 89% in Kampala.

FINANCE

Financing for the health sector is insufficient to meet the increasing level of health services demanded by the growing population, the cost of technologies and equipment and the health facility requirements related to the increase in number of districts in the region. Although the budget allocation for health has been increasing, the proportion of the Government of Uganda budget for health still averages only 9%. This is less than the 15% target of the Abuja Declaration on HIV/AIDS, Tuberculosis and other related Infections Diseases signed by the Government in 2001 (MoH, 2012).

CHALLENGES

While the Government’s Health Sector Strategic Investment Plan (2010-2015) seeks to ensure equitable access to health services, particularly in hard-to-reach areas such as Karamoja, constraints continue to exist
at the local level. These include inadequate funding, lack of key medicines in many clinics and insufficient staffing of health care workers, remaining below 50% in most districts (Feinstein International Centre, 2012). The Ministry of Health recognizes that improved sanitation and hygiene, greater vaccination coverage, improved nutrition and other measures would prevent 75% of the disease burden (MoH, 2012).

Constraints and challenges within the health system include weak implementation of policy, strategy and legal frameworks; staff shortages, inadequate capacity to deliver the Uganda National Minimum Health Care package, poor management and motivation; difficulties in accessing health centres due to distance; shortages in drug supply; underfunding; inadequate health infrastructure and equipment; weak referral and M&E systems; weak partnerships within the health care system; a disconnect between the Ministry of Health and district levels; inappropriate structures for intersectoral collaboration; lack of basic utilities at the facilities; and weak accountability and transparency. Access to basic health services are limited and unevenly spread with households in extreme poverty having the least levels of access according to national household survey data (MoH, 2012; NPA, 2010).

Furthermore, the 2011 Comprehensive Health Facility Functionality Assessment for Karamoja Region found that issues regarding financial management at health facilities impacted social service delivery significantly. Financial information was ‘not systematically being recorded and stored by majority of the health facilities. Most in-charges could not readily estimate the amount of funding received in the previous quarter and neither could they estimate the overall income for past financial year. Expenditures were even more difficult to ascertain’ (Ayiko & Lochoro, 2011).

District management capacity is still being built. Leadership and financial skills, health services management and specialist skills are inadequate at all levels. High levels of attrition tend to curtail capacity development initiatives. While Community Health Departments exist at Regional Referral Hospitals to support districts, systems to carry out this function are not yet fully operational. The increase in the number of districts has placed more supervisory and monitoring responsibilities on MoH (MoH, 2010). At community level, there is a network of Village Health Teams with coverage in 75% of districts but only 31% coverage of villages within these districts. Health Promotion and Education and other health social marketing strategies promote disease prevention, uptake and utilisation of services, care seeking and referral; however 21% of women and 11% of men aged 15-49 are not exposed to any source of mass media (UBOS, 2012a).

In Karamoja during dry season or drought, health support needs increase due to spread of disease and lack of water. The continuum of care and the provision of the Minimum Health Care Package are made more difficult due to shifting prioritisation of assets coupled with inadequate outreach services. Drought exacerbates an already stressed health care system so early response is largely reliant on external surge capacity.

Pastoralist communities who are largely dependent on livestock-based livelihoods and whose traditional drought coping mechanisms rely on animals and their by-products are exposed to zoonotic diseases. This calls for collaboration between human and animal health care services and further investment in essential equipment as ‘despite the fact that diagnosis can be made in many ways, some diseases may need a confirmatory laboratory diagnosis as a warrant to elicit an action’ (C&D, 2010).

POLICY REVIEW

The National Policy for Disaster Preparedness and Management (2010) mandates the Ministry of Health (MoH) to coordinate health related disasters. It cites the negative impact of drought, flooding and human epidemics on sanitation practices and recommends a policy action of improving sanitation and hygiene practices. The 1935 Public Health Act, currently under revision, provides an opportunity to incorporate Disaster Risk Management (DRM) in line with the Hyogo Framework for Action and the African Regional Strategy on DRM.

The Second National Health Policy (2010-2019) promotes a Minimum Health Care Package cluster approach and includes as one of four clusters ‘health promotion, environmental health, disease prevention and community health initiatives, including epidemic
and disaster preparedness and response’ (MoH, 2010). The policy emphasizes the importance of inter-sectoral and inter-ministerial partnerships in prioritising health promotion.

The Health Sector Strategic and Investment Plan III (2010-2015) mentions the negative effects of climate change, including prolonged drought and its impact on food insecurity and malnutrition. It highlights the benefits of improved systems for weather forecasting, disease surveillance and public health planning. It also has an objective to strengthen epidemic and disaster prevention, preparedness, response and management at all levels and to strengthen integrated disease surveillance, with particular emphasis on the early warning system and linkage with meteorological forecasts.

A key strategic objective of the Health Sector Quality Improvement Framework and Strategic Plan (2010-2015) is to scale up critical interventions for health and health-related services, with emphasis on vulnerable populations. The Framework and Plan recommends community sensitisation, early detection and rapid response to epidemics through functional surveillance systems, empowerment of health workers in early case definitions and the establishment of functional epidemic response teams.

The objective of the Pro-Poor Strategy for the Water and Sanitation Sector is to improve effectiveness of the water and sanitation sector in providing services to the poor. The Kampala Declaration on Sanitation (1997) cites that due attention should be paid to appropriate technology for vulnerable groups, such as the disabled and those living in difficult areas. It advocates for an equity-driven approach to sanitation service provision to ensure that there is a fair distribution of resources. Special consideration and specific approaches are required for ‘disturbed areas, displaced people, pastoralists, refugees and other social areas’ (GoU, 1997).

The Peace Recovery and Development Plan for Northern Uganda II contains health objectives which aim to increase access to health care and clean water. The region-specific Karamoja Integrated Development Plan targets are limited to improvements in living conditions of health personnel and improving sanitation and hygiene.

The Ministry of Health with support from the World Health Organisation produced Improving Disaster Risk Management in the health sector of Uganda: Country Health DRM Capacity Assessment’ in October 2012. The National Platform for Disaster Risk Reduction requested that it be used as a template for other ministries to assess DRM capacity.

There is a National HIV/AIDS Policy (2011), National HIV/AIDS strategic Plan (2011/12- 2014/15) and a National Prevention Strategic Plan (2010/11-2014/15). Contained within the HIV/AIDS Strategic Plan, under the thematic area of Social Support and Protection, is a commitment to improve the level of access of services for PLHIV, OVC and other vulnerable populations by 2015.

SECTOR APPROACH

The Health Sector institutional framework consists of the Ministry of Health which holds responsibility for the delivery of curative, preventive, palliative and rehabilitative services to the people of Uganda in accordance with the Health Sector Strategic Plan. Contained within the MoH are the Policy Analysis Unit and the Resource Centre, two directorates (development and planning, clinical and community health services) and seven departments. The health system in Uganda consists of a district health system, Village Health Teams (VHTs), health centres levels I, II, III and IV, and General, Regional Referral and National Referral Hospitals. The provision of health services in Uganda has been decentralised with districts and health sub-districts (HSDs) playing a key role in the delivery and management of health services (MoH, 2010).

Health services are delivered by both public and private sectors. MoH is responsible for policy formation and dialogue, provision of nationally coordinated services such as epidemic control, coordination of health research and monitoring and evaluation of the overall sector performance. Several functions have been delegated to national autonomous institutions including some specialised clinical support functions and regulatory functions.
The development approach to the Health sector in Karamoja is outlined by the Peace, Recovery and Development Plan (PRDP). It provides the overall strategic framework for interventions in Northern Uganda while the Karamoja Integrated Development Programme is aligned to the PRDP. The aim of strategic objective 2 of PRDP II is to ensure that empowered communities in Northern Uganda benefit from the recovery process through access to health care, education and free water. This involves rehabilitating and equipping existing facilities, constructing staff quarters, constructing and equipping new health facilities, purchasing transport mechanisms, training and equipping Village Health Teams, and training of Health Unit Management Committees (MKA, 2011). The Karamoja Integrated Development Plan, however, is limited in its objectives on health. These focus on improving living conditions for health personnel in Karamoja and improving sanitation and hygiene.

CASE STUDY: ENHANCING ADAPTABLE KNOWLEDGE MANAGEMENT AND INFORMATION SHARING THROUGH MTRAC USE OF MOBILE TECHNOLOGY

Overview
In 2011, the Ministry of Health (MoH) with technical support from UNICEF and WHO and funding from DFID, launched mTrac, an SMS-based health systems-strengthening tool designed to improve Health Management Information System reporting on disease surveillance and medicines in all health facilities in Uganda. mTrac has been designed for real-time data collection, verification, accountability and analysis of aggregate data and community engagement for the improvement of healthcare service delivery (MoH, 2013). The programme has led to enhanced access to real-time, disaggregated data from health facilities to the MoH, improved response times of the MoH to numerous outbreaks and an increased number of health facilities nationwide with adequate stocks. By 2013, over 25,000 Health Facility Workers in 3,500 Health Facilities were registered, trained and actively using mTrac for reporting critical health data. Close to 1,000 Health Workers have been trained in Karamoja to date. mTrac directly addresses health system challenges of efficient and adequate drug supply, real-time information on disease outbreaks, quality health service delivery and accountability.

Linkages at National, District and Community Levels
As part of the mTrac programme, UNICEF and WHO supported the development of the national eHealth strategy and technology road map and addressed gaps in human capacity and the stabilization of the MoH's Resource Centre Data Warehouse. mTrac plays a key role in the national eHealth strategy, serving as the MoH's communications engine. Another key component of the mTrac design was to strengthen the District Health Information System (DHIS2), a critical tool the MoH has prioritised. mTrac data is now automatically fed into DHIS2, which serves as the national repository for Health Management Information System (HMIS) data.

mTrac promotes interlinked reporting, planning and decision-making of health service delivery from Village Health Teams (VHTs) at the first line of care, the Health Workers at district health facilities and national stakeholders including the National Malaria Control Programme, Pharmacy Unit, Epidemiological Surveillance Department, the Resource Centre, and the National Medical Stores. Complementing this component is an anonymous SMS Health Service Delivery Complaints toll free hotline for communities. Every month 200-500 actionable reports are received by the MoH. Currently, District Health Teams are successfully resolving approximately 60% of reports, with the Medicines and Health Services Delivery providing overall oversight and support.

The MoH has also utilised the mTrac system across other departments to gain input from District Health Teams and Health Centres on alternative surveys and polls. The Uganda National Expanded Programme for Immunization (UNEPI) has run a series of surveys on vaccine knowledge, cold chain fridge functionality, and stock-outs of essential antigens, which led to a series of changes that have improved access to vaccines throughout Uganda. mTrac is also supporting real-time data collection within the MoH's Family Health Days campaign.
mTrac focuses on turning real time disaggregated data on disease outbreaks and stock levels to actionable response, allowing for health service early warning and adaptation to meet district and community needs. Having access to ‘trend data’ also increases capacity of the MoH Epidemiology and Surveillance Division and the District Health Teams to readily respond through informed management decisions on such issues as re-distributing drugs and initiating responses to disease outbreaks. Such outbreaks or stock outs send an ‘alert’, as defined by the MoH for certain SMS reports, to trigger early response action (UNICEF, UKAID & WHO, 2013). This, in turn, enhances community preparedness in relation to health service provision of stock.

This real-time data also allows a programme to ‘course correct’ during its initial stages. This was evidenced by UNEPI which used mTrac to identify potential bottlenecks that could have impacted the rollout of PCV vaccine and the Polio campaign (UNICEF, UKAID & WHO, 2013). Data gathered from mTrac identified that 13% of all health Facilities had non-functional fridges with minor problems, including stock-out of gas or mechanical issues, potentially affecting up to 4 million people. UNEPI, working with National Medical Stores, UNICEF and WHO, worked to address these issues before the vaccines were distributed at facility level.

Independent reporting through the toll free SMS-based hotline builds the ability of the community to constructively engage in decreasing risk and increasing quality service delivery, while community-based monitors build an accountability chain within the formal health sector.

The second phase of mTrac focuses on using lessons learned to improve the overall system including integration and expansion of the RapidSMS technology to cover a more holistic package of health interventions. This will enable more efficient and effective monitoring, planning and implementation within the health service and allow for additional reporting on, for example PMTCT and malnutrition tracking. The model is replicable across other sectors as displayed in UNICEF’s use of RapidSMS system for uReport1, a SMS service for young Ugandans, and EduTrac, a school monitoring system2.

Improving the efficiency of health service delivery during ‘normal times’ allows for greater potential response in stress times such as during drought or disease outbreak. Real-time data that feeds into an existing monitoring system allows for more efficient information transmission to allow for speedier response times from central levels. Preparedness actions through adequate drug supply can prevent delayed response during an emergency.

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1 See www.ureport.ug and www.unicef.org/uganda/innovations.html for more information
2 See http://edutrac.blogspot.com/ and www.unicef.org/uganda/innovations.html for more information
KEY MESSAGES

• SMS technology can improve real time data collection, verification, accountability and analysis of aggregate data for health management information systems

• Real time, disaggregated data related to stock levels fills a current gap in the health system and allows for health service early warning and adaptation to meet district and community needs

• Receiving actionable data through SMS systems allows a programme to identify potential bottlenecks in service delivery and ‘course correct’ during its initial stages

• Having access to ‘trend data’ increases the capacity of District teams to cope through informed management decisions such as on re-distributing drugs and initiating responses to disease outbreaks. Such outbreaks or stock-outs send an ‘alert’ to trigger early response action

• Improved managerial decision making can lead to more interlinked reporting, planning and decision-making across levels of the health system

• Independent reporting through the toll free SMS based hotline builds the ability of the community to constructively engage in decreasing risk and increasing quality service delivery, while community-based monitors build an accountability chain within the formal health sector

• Collaboration with an existing Government oversight body and community-based monitoring enhances accountability and efficiency of health service delivery

• A scaled up approach has begun to integrate and expand the use of the technology across Government health departments to cover a more holistic health intervention package, to allow cross-sectoral use

• Technical expertise can have a sustainable impact on the wider sector such as through the development of the eHealth strategy and technology road map

• Early successes in data utilisation were found by mirroring existing workflows and prioritising indicators that required an immediate response

CASE STUDY: ENABLING ADAPTABLE ANIMAL AND HUMAN HEALTH CARE SERVICE PROVISION THROUGH THE ONE HEALTH APPROACH

Overview

The One Health concept, which aims to expand interdisciplinary collaboration and communication in health care for humans, animals and the environment, has been implemented in East Africa for several decades. In Karamoja, VSF Belgium, with funding from the Food and Agriculture Organisation (FAO), piloted a six month project on the One Health approach from April to September 2013 to address livestock, human and wildlife disease interface in two Sub-counties of Kaabong District which border the Kidepo Valley National Park in Karamoja. The pilot project outputs included:

1. the development of a framework and tools for multi-level stakeholder consultation to identify health and livelihoods priorities at community level and
2. implementation of One Health interventions to address selected priorities


4: Final report was not available during the Review. Evidence is based on training reports, questionnaires and interviews.
The separate risk analysis for each community proved necessary for proper implementation of the One Health methodology, noting causes and paths of migration and insecurity impact for pastoralists and agro-pastoralists. The use of existing structures at community level of Village Health Teams (VHTS), Community Animal Health Workers (CAHWs), and Community Development Officers (CDOs) enhance One Health methodology sustainability and could lessen associated cost burden sharing in logistics and communication. The One Health approach contributes to the adaptability and resilience of overall animal and human health service delivery through its requirement for multi-sectoral engagement at community level.

**Resilience:**
According to project reports, public health issues attributed to animal and human interface are multi-sectoral and include lack of awareness of modes of transmission for prevalent diseases; poor hygiene practices; scarcity of water; consumption of raw by-products and the misuse of antibiotics for both humans and livestock. The One Health intervention increases the knowledge of health system personnel on traditional and local coping mechanisms to address the above issues which in turn enhances their ability to adapt services to stress times. A 2010 C&D study underlined that the use of animals and their by-products as coping mechanisms in times of drought and cultural practices can be specific to the region or tribe, the understanding of which should be applied to resilience programming as a means for addressing zoonotic disease transmission in a sustainable manner.

'磷the entity of such [cultural practices] risk is highly dependent on the roles and the social categories of the people involved in the ceremony. […] The pre-existing hygienic and nutritional conditions […] also affect the entity and the spread rate of the disease transmission.

Another factor of potential risk is the consumption of raw blood, a common practice in some Karamojong tribes, which represents a subsistence factor extremely relevant especially during food shortages.

In Karamoja customs, milk is exclusively consumed as raw. [As boiling is seen as] an unacceptable waste of milk […] in shortage food conditions […].

[..]he social groups more vulnerable to the possibility of contracting diseases […] are women and children, who are considered the weakest link in the hierarchy, with no or limited access to the few available resources during dearth periods.'

Excerpt from Livestock Disease Surveillance in Karamoja. The Importance of Early Detection of Diseases and Epidemics for Livestock Dependent Communities. C&D, June 2010
KEY MESSAGES

- The separate risk analysis for each community proved necessary for proper implementation of the One Health methodology, noting causes and paths of migration and insecurity impacts for pastoralists and agro-pastoralists
- The methodology uses existing structures and requires multi-sectoral engagement at community level
- The health system personnel at local levels are informed on traditional and local coping mechanisms to drought and other stress times
- Indicators are harmonised with those of existing early warning tools where possible and within the One Health parameters
- Essential equipment is required in order to confirm disease outbreaks through laboratory diagnosis in order to elicit an early action

CASE STUDY: USING FAITH-BASED ESTABLISHMENTS AS AN ENTRY POINT TO DELIVER PREVENTIVE HEALTHCARE SERVICES IN FAMILY HEALTH DAYS

Overview
The Uganda Ministry of Health through the District Health Teams (DHTs), in collaboration with UNICEF and other partners, have implemented the Family Health Days (FHDs) project since July 2012. The main objectives are to reduce the under-five child mortality rate and the maternal mortality rate and accelerate attainment of Millennium Development Goals 4 and 5. The FHDs strategy aims to increase availability and accessibility of preventive health services and information by expanding the current service delivery platform to include places of worship which complement routine health facility services and other health outreach programmes. By increasing access to outreach services, the continuum of care required to prevent and respond efficiently to health care issues is enabled and the health status of the population and the resilience of communities are strengthened.

The Family Health Day is an outreach program of integrated delivery of immunization, malnutrition screening, Vitamin-A supplementation, deworming, antenatal/postnatal care, birth registration, paediatrics HIV testing, adult HIV counselling and testing, hypertension and diabetes screening for pregnant mothers and their partners. FHDs aim to improve health seeking behaviour through localised service delivery and messaging.

Access to Basic Services through Faith-Based Establishment partnerships
Access to populations is a pre-requisite for adaptable service delivery in remote regions such as Karamoja. Outreach services have proven effective in bringing services to hard-to-reach areas and in increasing response during stress times, but collaboration with faith-based organisations to mobilise the population in uptake of services is also required.

Family Health Days services are delivered at churches and mosques on days of worship. The Uganda Catholic
Secretariat, Church of Uganda and Uganda Muslim Supreme Council have standing Programme Cooperation Agreements with UNICEF and provide trusted, known and permanent sites for sustainable access to communities. Religious organisations have longstanding relationships with communities and are able to effectively mobilise their congregations for health services through pulpit messaging and during pastoral visits to the communities.

In 2011, both Karamojong men and women scored highest in the nation for not listening to a radio, not watching television, and not reading newspapers or magazines on a weekly basis at 23.9% of men and 69.3% of women aged 15 to 49 (UBOS, 2012). This limited exposure to mass media, especially for women at over triple the national average, underlines the need for alternative avenues for information dissemination. Complementary mobilisation channels to faith-based establishments for sensitising communities in remote areas include radio messages, banners, flyers, door to door communication by local leaders and village health volunteers. Places of worship with congregation sizes of 200 and more are selected during district quarterly micro-planning meetings by DHTs, representatives of faith-based establishments, district officials and UNICEF program officers (MoH & UNICEF, 2013).

The districts were selected based on the Child Wellbeing Index which is an average of performance scores over selected indicators including health, education, water and environmental sanitation, poverty, protection and capacity gaps. District ranks were assigned on the principle that the poorest performing districts, among which are all seven districts of Karamoja, have higher priority.

**Resilience**

Effective information management is attained through Family Health Days process linkages of the District Health Information System database and the National Health Management Information System database. Credible outreach data on immunization coverage, antenatal service utilisation and other health services is used for assessment and planning purposes. In addition, data is sent through SMS and made available in the mTrac system, which can be accessed by the MoH, district health teams and UNICEF. This real-time data collection enables the MoH and partners to immediately respond to arising needs, improve future planning and monitoring of the outreach programme, and **strengthen the system's knowledge base and ability to adapt** in times of increased stress such as drought.

### Key Messages for Health Service Delivery

- Outreach health services are required in hard-to-reach areas to allow for access to preventative and curative health services and to maintain a continuum of care
- Health seeking behaviour needs to be increased in the region and is aided by the availability of localised service delivery and messaging
- Due to limited exposure to mass media, alternative avenues for information dissemination are required
- Linkages with faith-based establishments provide a trusted, known and permanent site for sustainable access to hard to reach communities and are effective in mobilisation of communities to access health care
- District selection for interventions is based on social service-related and poverty indicators
- Information management systems at district and national levels are linked and used for assessment and planning purposes
- Real-time data enhances information management systems which in turn informs interventions for effective early response
Recommendations

- District Health Teams require further human resource management capacity development and technical experts to ensure and support quality service delivery through Village Health Teams given their voluntary role, capacity, resources and workload distribution.

- Good practice and lessons learned during implementation of the use of mobile technologies to support Health Management Information System should be disseminated widely and should continue to be replicated across health departments and across other Ministries. Findings should be shared on how the use of such technology can be adapted to the Karamoja context, as a drought prone and sparsely populated region with seasonal shifts in needs for service delivery, low literacy levels and lack of infrastructure.

- The areas of mental health service provision in the post conflict context of Karamoja merits prioritisation in interventions, greater resource allocation and further study. Likewise, the use of alcohol as a coping mechanism to drought and its impact on households and children requires attention at local and policy levels.

- The sanitation sector requires an overarching, long-term National Plan for Sanitation with clearly delegated lead and implementation roles and responsibilities. The plan should promote a participatory and self-supply approach to sanitation in order to ensure systematic coverage. It should allow for culturally sensitive stages of behavioural change for each region and communities therein, acknowledging differences in baseline sanitation indicators between districts and regions. It should allow for seasonality in access and supply of water as well as the predicted increase in frequency and intensity of hazard events such as flash flooding and drought. It should also be aligned to an Emergency Strategy for Sanitation that is specific to hazard type and complement emergency plans of other sectors. The plan should complement water and health sectors plans, in particular, and reflect both urban and rural sanitation requirements.

- Systematic community level first aid training with messages repeated in multiple settings across sectors should be conducted for local bodies who are often the first at hand for disaster response.
‘Good practice’ framework and early-warning network for preparedness action and early response

The World Health Organisation (WHO) has an Emergency Response Framework (2013) as well as an Early Warning Alert and Response Network (2012). Both of these can be used to support social service delivery during emergencies as well as bridge early warning and early response for potential public health emergency events through effective information management.

The Emergency Response Framework (2013)

The Emergency Response Framework (ERF) aims to outline roles, responsibilities and a common approach that instigates urgent, predictable and accountable service to those affected by emergencies. The ERF underlines 3 essential policies for optimising WHO’s emergency response which include the Surge policy, the Health Emergency Leader policy and the No regrets policy.

The Surge policy uses an interregional surge mechanism consisting of qualified staff from throughout the WHO programmes and from partner agencies that can be deployed a no-regrets basis and with set managerial structures

The No regrets policy affirms that ‘it is better to err on the side of over-resourcing the critical functions rather than risk failure by under-resourcing’. WHO authorises predictable levels of staff and funds to be made available to the country office at the onset of an emergency ‘without blame or regret’ in the event where, in hindsight, less may have been required (WHO, 2013).


Migration is used as a coping mechanism to drought in Karamoja which has been associated with increased disease transmission or outbreak. During an emergency, surveillance systems may not be equipped to adequately meet the urgency of information needs. Supplementary procedures for information management in emergencies, such as those laid out in the EWARN guidelines, promote systematic preparedness for disasters.

Recommendations: District Health Teams require further human resource management capacity development and technical experts to ensure and support quality service delivery through Village Health Teams given their voluntary role, capacity, resources and workload distribution

Good practice and lessons learned during implementation of the use of mobile technologies to support Health Management Information System should be disseminated widely and should continue to be replicated across health departments and across other Ministries. Findings should be shared on how the use of such technology can be adapted to the Karamoja context, as a drought prone and sparsely populated region with seasonal shifts in needs for service delivery, low literacy levels and lack of infrastructure

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Systematic community level first aid training with messages repeated in multiple settings across sectors should be conducted for local bodies who are often the first at hand for disaster response.
The 2013 MDG report states that a reduction in income poverty accompanied by significant improvements in child nutrition and a steady reduction in hunger and under-nutrition has Uganda ‘on track’ to meet the 2015 hunger reduction target. The national poverty head count declined from 56.4% in 1993 to 24.5% in 2010 (MFPED, 2012) and the share of underweight children under five years of age declined from 25.5% in 1995 to 13.8% in 2011 (UBOS, 2012).

The Karamoja region, however, is ‘off-track in meeting health and nutrition-related Millennium Development Goals’ (MFPED, 2013). The latest Demographic Health Survey noted that Karamoja’s SAM rate of 11.9% for the underweight category is 7.9% higher than for any other region in the country. and that its SAM rates for stunting and underweight categories are nearly 9 times those of Kampala (UBOS, 2012).

Nutrition Surveillance verification that malnutrition is seasonal in the region enables preventative and adaptable service approaches. Consistent delivery during dry seasons requires addressing root causes of malnutrition and the uptake and accessibility of services in remote locations of migratory and sedentary populations.

The Uganda Nutrition Action Plan (2011–2016) encourages measures to improve maternal nutrition and care, including exclusive breastfeeding for the first six months of life; timely, adequate, safe and appropriate complementary feeding and micro nutrient intake between 6 and 24 months; and the fortification of common staple foods (MFPED, 2013). The Action Plan aims to reduce the percentage of children with chronic malnutrition to an initial target of 32% by 2016.

The total projected cost of the 5 year Uganda Nutrition Action Plan of UGX 161,614 million includes budget estimates for activities under each objective. The Ministry of Health notes that financing the Action Plan will require a concerted effort from Government, development partners, civil society organisations and the private sector but maintains that the major investor in these nutrition priorities will be the Government of Uganda (GoU, 2011). It is estimated that in 2009, total losses associated with child under nutrition was 5.6% of the GDP or 1.8 trillion UGX (WFP et al, 2013).

The Uganda National Action Plan addresses key issues in the nutrition sector. The lack of an institutionalised coordinating mechanism for nutrition programme planning and implementation has led to duplication of services without equitable distribution or mobilisation and public nutrition intervention with little human capacity or technical competence development (GoU, 2011). Such staff capacity problems stem from inadequate financial investment and low prioritisation in district planning. Lack of staff accommodation contributes to insufficient staff, especially in hard-to-reach areas. Nationally, essential equipment such as ICT also remains a challenge with only 6.4% prevalence among health facilities (MoH, 2010).

Since peaks in Karamoja’s Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM) are cyclical and based on seasonal trends, the challenge is to effectively prevent malnutrition through wider resilience programming based on food security, equitable access to quality basic social services, increased sustainable community-level nutrition knowledge and awareness, diversification of income, and efforts to address on-going nutritional and preparedness needs.
POLICY REVIEW

The Constitution of the Republic of Uganda (1995) recognizes the importance of food and nutrition and further stipulates that the State will encourage and promote nutrition through mass education and other appropriate means in order to build a healthy state. The Constitution mandates that the Ministry of Health (MoH) and the Ministry of Agriculture, Animal Industry and Fisheries should set minimum quality standards and develop relevant policies in the areas of food and nutrition (MoH, 2010a).

The Uganda Nutrition Action Plan (2011-2016) serves as a framework for multi-sector efforts to scale up nutrition. The UNAP seeks to directly and indirectly address the nutritional needs of all Ugandans, particularly the most vulnerable, to bring about a sustained decline in the number of malnourished Ugandans. The plan sets out to ‘specifically target’ geographic areas where young children and mothers are most vulnerable to malnutrition. Objective 1 of the UNAP is to improve access to and utilisation of services related to maternal, infant and young child nutrition. Objective 3 is to protect households from the impact of shocks and other vulnerabilities that affect their nutritional status.

The Uganda Food and Nutrition Policy (2003) and Strategy (2005) are being revised in line with the UNAP. Several nutrition-specific guidelines exist covering infant and young child nutrition and feeding, maternal nutrition, and care and support for people living with HIV and TB (SUN, 2013). The Ministry of Health has created the Integrated Management of Acute Malnutrition (IMAM) Guidelines (2012). These guidelines have been designed to provide the framework for ensuring appropriate preventive interventions, early identification and treatment of acutely malnourished individuals (MoH, 2010b).

The Policy Guidelines on Infant and Youth Child Feeding (2012) contains a section on ‘feeding the infant/young child who is in other exceptionally difficult circumstances’ with a policy guideline that ‘malnourished children should be provided with appropriate medical care, nutritional rehabilitation and follow up’.


The Disaster Preparedness and Management Policy (2010) specifies that disaster risk management programmes should be integrated into the national food and nutrition policy and its action plan. The policy also requires ensuring the implementation of the food security and nutrition policy under the Famine and Food Security policy actions.

The Karamoja Integrated Development Plan contains a provision for ‘Social Protection and food security for poor and vulnerable households’ which aims to improve these households’ food and nutrition security.

SECTOR APPROACH

The Constitution of Uganda assigns responsibility to the Ministry of Health (MoH) and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) for setting minimum standards and developing relevant policies for food and nutrition. Under this mandate the Government of Uganda formulated the Uganda Food and Nutrition Policy (UFNP) to provide a framework for the relevant ministries (MoH, 2010). The Uganda Nutrition Action Plan 2011-2016 strengthened the institutional structure for national level coordination through the establishment of the Food and Nutrition Council and its secretariat in the Office of the Prime Minister as proposed in the draft Food and Nutrition Bill. The Council and its Secretariat is responsible for providing policy direction, guidance, and oversight, as well as national coordination of the implementation, monitoring, and evaluation of the UNAP and other nutrition programmes in the country (GoU, 2011). Sector-level coordination committees consisting of various ministries, departments, and agencies are charged with the coordination of
Objective Three of the UNAP includes strategies to develop preparedness plans for shocks and to promote social protection interventions for improved nutrition. The former includes interventions that a) strengthen and scale up early warning systems on food and nutrition information from community to national levels, b) develop, promote and implement in a timely fashion a comprehensive package of nutrition services and food items to provide during emergencies and recovery periods, c) make integration of nutrition in all disaster management programmes mandatory, and d) conduct sensitisation programmes for communities to raise their awareness of prevention, mitigation and response to risks of malnutrition during shocks (GoU, 2011).

The District Nutrition Coordination Committees (DNCC) aim to provide technical advice to the district technical planning committees and District Council. To date, DNCCs have been established in 5 initial districts nationally and will be rolled out to an additional 20 UNICEF focus districts, including those in Karamoja. DNCCs aim to monitor and evaluate nutrition activities, conduct reviews and provide technical advice to lower local government levels. Nutrition focal persons/officers in local governments and at the community level coordinate nutrition activities within their areas of responsibility (GoU, 2011).

CASE STUDY: ENABLING TARGETED NUTRITIONAL HEALTH CARE SERVICE DELIVERY THROUGH NUTRITION SURVEILLANCE

Overview
Nutrition Surveillance is conducted twice yearly by the Karamoja District Local Government with technical and financial support from UNICEF and WFP. It is based on a centralized information approach to support regional and sectoral planning and monitoring that also informs IMAM-focused nutrition programming by district authorities and partners and provides advocacy evidence for policy implementation and resource allocation at the national level.

Nutrition Surveillance aims to monitor the nutritional status of children aged between 6 and 59 months; to determine health, food security and WASH factors linked to malnutrition; and to build the capacity of nutrition surveillance focal persons and health workers on surveillance system operation. From December 2009 to May 2013, 10 periodic surveys using the SMART three-stage cluster sampling methodology were conducted. Nutrition Surveillance supports Hyogo Framework for Action priority action 2 to ‘identify, assess and monitor disaster risks and enhance early warning’.

HOLISTICALLY INTERLINKED Policy and Approach linkages
As defined in the methodology, interventions that are holistically linked with national, regional and local policies and approaches contribute to an overall adaptable and resilient service delivery system. How IMAM and Infant and Young Child Feeding (IYCF) are conducted in all phases is detailed in the IMAM and IYCF Guidelines 2012. The National Development Plan and the Peace and Recovery Development Plan define Nutrition Surveillance’s role in regular monitoring of the Karamoja food and nutrition situation. Nutrition Surveillance also enables achieving Uganda Nutrition Action Plan Objectives to ‘strengthen the policy, legal, and institutional frameworks and the capacity to effectively plan, implement, monitor and evaluate food and nutrition programmes’ and ‘conduct periodic district-level food and nutrition surveys in vulnerable areas and among vulnerable populations’. It also recommends multi-sectoral implementation and coordination. And the general early action and extreme event preparedness and contingency plans are explained in the Disaster Preparedness and Management Policy 2010.

Normal times
Nutrition Surveillance complements regular nutrition services of the DHT such as OTC, ITC, IMAM, screening,
referrals, diagnosis and treatment the role that the VHTs play in mobilization, screening and referral for these activities and in facilitation of behaviour change using nutrition information, education and communication materials on such topics as breastfeeding, appropriate complementary feeding during weaning, sanitation and hygiene, health seeking behaviour and food security issues such as dietary diversification and reducing post-harvest losses and spoilage. It also fills a gap from other national health surveillance. As the national MoH Health Management Information System (HMIS) is considering adding nutrition indicators to its monthly data, strategic harmonization of purpose and depth of indicators and analysis is needed among the Nutrition Surveillance, the Uganda Demographic Health Survey that’s done every five years and the monthly HMIS survey.

For the Nutrition Surveillance that is done twice per year in normal and drought times, the DHT mobilizes households to participate through the VHTs and the local leaders. Field data collectors who are recruited by the DHT collect the data from these households over the course of eight to ten days. Any SAM cases identified are referred for supplementary feeding or for in-patient therapeutic feeding while MAM cases are given home treatment by VHTs. Technical oversight partners, ACF from 2009 to May 2012 and Makarere School of Public Health from December 2012 until now, are in charge of quality assurance for the data collection and then are responsible for analysis and interpretation of the data and making a preliminary surveillance report available within 14 days.

These Surveillance reports are then shared for decision-making through platforms at the district, regional and national level. They inform nutrition care and support interventions, allow for mitigation based on trend analysis and targeted response activities, and are used for impact evaluation of nutrition programmes in the region. They can also be used to inform medium to long-term malnutrition mitigation and preparedness activities6. District Health Offices use them in Karamoja Nutrition Technical Working Group (TWG) meetings to improve coordination and implementation of nutrition programs in the region. At the regional level, such groups as the Karamoja Working Group and Karamoja google mailing group use them. At the national level, the MoH Nutrition Unit, the Assistant Commissioner of Child Health and TWG on M&E for Nutrition use them. And part of building nutrition capacity in a current CUAMM-UNICEF Programme Cooperation Agreement is preparing and sharing analysed nutrition information and updates in District Health Teams, Health/Nutrition Sector working groups, regional review fora and the Disaster Management Committees.

Current Nutrition Surveillance indicators cover sectors of nutrition, socio-economic status, hunger and food security, morbidity and immunization, water and sanitation, and gender profiles. The recent addition of food security indicators aims to further inform ongoing programmes and create clear linkages to other surveillance systems in the region. Furthermore, their inclusion strategically creates greater synergies with activities of UNICEF, WFP and FAO and aligns with other HoA country structures and policies such as the Food Security and Nutrition Assessment Unit in Somalia, the Emergency Nutrition Coordination Unit of Ethiopia’s Disaster Risk Management and Food Security Sector of the Ministry of Agriculture and Rural Development and the National Food and Nutrition Security Policy of Kenya.

### Early Warning, Early Action and Extreme Events

Though nutrition indicators are not used primarily for early warning, the Nutrition Surveillance reports inform emergency preparedness through **linkages with early warning systems** in the region. The Surveillance indicators on ‘safe water source’ and GAM and SAM rates are incorporated into the Drought Early Warning System (DEWS) in Karamoja. The Nutrition Surveillance also informs the national level Famine Early Warning Network (FEWSNET). The addition in 2012 of food security indicators that are highly relevant to people’s nutritional status should enhance its early warning capacity.

Resulting **triggered early action** activities starts with activating contingency plans and such actions as on-the-job training for skills needed to cover increased demand; increased information sharing and coordination across government levels and sectors;
rapid mass nutrition screening; pre-positioning of supplies, equipment, people and finances; distributing and renewing stocks; and reviewing thresholds of affected facilities and outreach capacity. Outcome variables from the surveillance data can also help to determine what progress is being made in addressing malnutrition and food insecurity in Early Action activities and in recovery from an extreme event.

If thresholds of what facilities can handle are exceeded such that such an extreme event is realized, the OCHA Nutrition Cluster will be activated. Resulting activities could include increasing IMAM, TSFP, IYFC, vitamin A and micro nutrient distribution and deworming activities, providing surge support to static and mobile nutrition services such as those along migratory routes, extreme rationing and increased distribution of alcohol millet to youth, preventative screening and referrals, on-the-job training for needed emergency skills and increased emergency nutrition, health and hygiene sensitisation. Coordination with and technical support to the OPM and District Disaster Management Committees could enhance the use of the Nutrition Surveillance system for early action and extreme events, if generated information was incorporated into regularly updated district contingency and emergency preparedness plans.

IMPACTS
The main objectives of the Nutrition Surveillance are 1) to monitor the nutritional status of children aged between 6 and 59 months, 2) to determine health, food security and Water Sanitation and Hygiene (WASH) factors linked to malnutrition, and 3) to build the capacity of nutrition surveillance focal persons and health workers on running the surveillance system.

ADAPTABILITY
Undisrupted service
Household and community adaptive capacity to drought requires on-going, regular and undisrupted nutrition services to ensure nutrition security. Nutrition Surveillance household level surveys complement routine community screening by the Village Health Teams (VHTs), allowing for referral to enhance the use and hence effectiveness of service delivery. The Nutrition Surveillance model captures standardized information generated on nutrition and food security which enables service delivery mechanisms to be modified for trends and early action.

Evidence drawn from the last 10 rounds of the Nutrition Surveillance has demonstrated seasonal trend of ‘spikes’ in GAM observed yearly around April/May and have triggered action by both local governments and partners to pre-position therapeutic food and equipment, strengthen technical support supervision and determine whether to open mobile outreach treatment sites (OTCs) in ‘hot spots’. Also, findings from the Nutrition Surveillance in 2012 prompted UNICEF to conduct a rapid mass screening of all children under 5 years of age to quickly identify those in urgent need of treatment for Severe Acute Malnutrition (SAM); in turn out- and in-patient therapeutic care admissions doubled in that year and in 2013.

Anticipating future needs
Nutrition Surveillance provides knowledge on GAM and SAM trends which can be used to better anticipate needs for stockpiling at health facilities and outreach treatment centres. This information coupled with facility and centre thresholds with regards to staffing, infrastructure and equipment, could enhance contingency planning with regards to surge capacity and needs therein.

Context relevant
The use of local people from the area’s DHT and VHT to organize and conduct the Surveillance ensures that contextual issues will be understood and that locally relevant solutions to them will be determined. Additionally, the Surveillance is sensitive to the seasonality of hunger and malnutrition in that surveys occur in alignment with Karamoja livelihoods during the lean season of May and the post-harvest season of December. At the start, the surveillance system was designed to capture timely information 3 times in a year in April, September and December. These time intervals are linked to key points of the agricultural seasons of peak of the hunger gap, beginning of the hunger gap and the post-harvest season. Following an internal evaluation on the current Nutrition Surveillance systems conducted by UNICEF in 2012, it was recommended to reduce the frequency to twice yearly in April and December based on observed
changes in GAM and SAM trends. The cluster sampling method used allows for data analysis both by districts and agricultural, agro pastoral and pastoral livelihood zones which allows the Surveillance reports to be context specific for adaptable service delivery.

**Do No Harm**

A nutrition surveillance system should have no effect on drought coping mechanisms, but surveillance activities require unbiased, representative and verified data in order to ensure that conflict is avoided. Collecting incorrect or biased information could lead to perceived undeserving people receiving assistance or other such problems that could rekindle tensions in a recently volatile area. Though Surveillance is of the nutrition status of children aged under five years and women of reproductive age (15 to 49 years) who represent vulnerable groups of the community, the sampling unit is based on household instead of children to eliminate selection biases and also ensure households without eligible children are included in the sample. Data gathered is age and gender disaggregated and profiled, though the Nutrition Surveillance report December 2013 highlighted that no exact birthday was given for children, underlining the need for support to birth registration services in the region.

There are plausibility checks for four of the seven districts in the December 2013 report which are built into the system which, for example, use the 3 exclusion procedures on evaluation of standard deviation, normal distribution, skewness and kurtosis. Values are flagged that should be excluded from analysis for a nutrition survey in emergencies.

**RESILIENCE STRENGTHENING**

**Knowledge & ability to adapt**

The Nutrition Surveillance survey activities and its reports provide a much needed platform for nutrition discussion at district and regional levels. Reports can be used for district contingency planning, for comparison of the impact of outcome variables of nutrition-based programmes and to influence broader sectors’ impact upon nutrition outcomes.

The District Health Officers now have better understanding of the nutritional status of their communities and underlying causes of malnutrition. Having now completed 10 rounds of surveillance, District Health Team capacity in areas such as sampling techniques, field survey supervision and protocol adherence, has been developed and can be applied to other surveillance activities in the region.

Technical support is still required for analysis and communication of nutrition and food security results. This capacity gap may be addressed within the anticipated District Nutrition Coordination Committee; though it is likely UNICEF will need to maintain technical oversight of the system in the coming years.

Community level knowledge and ability to adapt to nutritional needs is indirectly supported through the Surveillance reports use in nutrition programming in Karamoja. Nutrition Surveillance reports have potential to directly impact knowledge and awareness of communities if downward communication and accountability are enhanced for the Surveillance system through the creation and implementation of a communication strategy.

**Access to Basic Services**

The system provides relevant and reliable data to direct and advise district planning and nutrition programming at district and household levels in the region and therefore contributes to Uganda Nutrition Action Plan Objective 1: Improve access to the utilisation of services related to maternal, infant and young child nutrition.

Reliable and timely information generated by Surveillance is necessary for ensuring that interventions can provide sufficient and efficient basic services coverage and accessibility. From the findings of the Nutrition Surveillance, ‘hot spots’ can be identified and guide the scale up and establishment of treatment centres (OTCs) in hard to reach areas of Karamoja. The UNICEF supported Integrated Management of Acute Malnutrition (IMAM) programme has been scaled up over the last 3 years from 33 treatment sites to over 102 sites in the entire region, this way bringing services closer to the communities and significantly increasing the IMAM programme coverage and access. As part of the Nutrition Surveillance system, Village Health Teams identify and refer malnourished children to health facilities, encouraging uptake of services.
Intended

- Monitor nutritional status of children aged 6-59 months
- Determine health, food security, & WASH factors of malnutrition
- Build capacity of nutrition surveillance DHT

Adaptability

- Complimentary to VHT screening and referral can help trigger early action
- Modifiable model
- Trigger for pre-positioning therapeutic foods & equipment, mobile OTCs
- Indicators by location, zone, and sector
- Use of DHT and VHT relevant local solutions
- Results help understand trends & optimally stockpile waste
- Facility and health center setting thresholds enhance contingency and surge capacity planning
- Factors in place to ensure that selection criteria is acceptable and does not trigger conflict

Resilience - Strengthening

- DHTs better understand nutrition and appropriate responses
- Information helps district-level planning & contingency planning
- Community-level ability to adapt would be improved with downward accountability and a communication strategy for results
- Measures nutrition diversity and food security and other relevant indicators relevant to provide training to increase access
- Reliable and timely data by the surveillance ensure that facilities provide sufficient and efficient basic service
- Hotspot identification OTCs in hard-to-reach areas
- Surveillance related IMAM activity has scaled up, increasing coverage and access to basic services
- Currently a top-down tool, but result dissemination could help local issue understanding & decision-making
- Cost-effective indicators for application at the household level inform social protection programs

Equitability

- Unbiased sample methodology includes various groups of the community such as pastoralists, agro-pastoralists and agriculturists as well as remote people and vulnerable children

Sustainability Cost Effectiveness

- Adaptable tool indicators that ensure continued relevance
- Use of standard tool indicators that can be replicated and scaled up
- Despite training, dependent on external funding for the foreseeable future
- Benefits such as enabling risk sensitive investment and reducing the cost of service delivery through regular surveillance should be considered in future study of cost-effectiveness

Figure 47: Nutrition Impact Diagram
Participatory decision-making
Nutrition Surveillance is a top-down model based on standard indicator selection which allows for the system to be a replicable and scalable model. This approach however omits participatory decision-making at the community level. Traditional community surveillance and early warning indicators are not collated and using such information to supplement national surveillance systems is an area which merits further study.

The information generated by the surveillance system is fed to the community through the Village Health Teams from the responsible health facility that attends the district surveillance dissemination meetings. The consistency, quality and impact of the information delivered directly to communities needs to be monitored and assessed.

There is an Ethical Considerations section in Nutrition Surveillance which emphasizes that ‘permission to collect data was sought from local authorities with the [District Health Officer’s] involvement. The purpose of the survey was clearly explained. Protocol was observed while entering any community. A written consent was sought from survey participant before any interview and confidentiality ensured’. Such procedures should be verified, particularly the need to take the time to explain the survey and confirm the legitimacy of the ‘written consent’ of a largely illiterate population.

Ability to meet needs
The Uganda Nutrition Action Plan Objective 3 is to ‘protect households from the impact of shocks and other vulnerabilities that affect their nutritional status’. The National Surveillance analysis and promotion of awareness on care practices and gender profiling can contribute towards implementing agencies’ greater understanding of household needs and a more targeted and context specific approach can be adopted. There are indicators included, such as breastfeeding, certain health care seeking behaviour and hygiene practices, that are cost effective which lends towards greater sustainability and ability for households to meet their own needs. These care practices also lend towards the promotion and protection of children and women’s nutritional status as necessary to secure recovery from shocks and trends felt at household and community levels.

The Surveillance reports are used by agencies that provide access to resources such as cash and food for work programmes and elderly grants to allow for households to meet their own needs. Information on water sources can guide water source protection and mitigation activities. Linkages with early warning systems in the region allow for preparedness and early response measures at community and household levels.

Equitability
The Surveillance covers all of Karamoja through random cluster methodology thereby capturing migrant populations present in households or manyattas at the time of the survey. Selected villages or manyattas are segmented into units with 12 households based on locally accepted boundaries.

Children aged 5 to 59 months and women aged 15 to 49 years who represent vulnerable groups of the Karimojong society are targeted. The sampling protocol covers the pastoral, agro-pastoral and agriculture ecological zones of Karamoja sub-region which provides an opportunity of data analysis by both districts and livelihood zones. Sampled household with or without children and women of reproductive age are included in the assessment. The Nutrition Surveillance is gender and age sensitive.

Sustainability & Cost-Effectiveness
Because indicators in the surveillance tool are standard, they can be replicated and scaled up easily. Because they are also easily adaptable as conditions change, the tool itself should be able to remain relevant for sustained use if it remains funded. UNICEF in collaboration with the Ministry of Health and WFP is developing competencies of the District Health Teams to conduct nutrition and food security assessments twice yearly with technical support from Makerere University School of Public Health. The system is currently largely dependent on external funding and technical support particularly on data quality, analysis and interpretation and will continue to be so for the next few years.

Regular surveillance allows for a targeted approach to service preparedness and delivery which enhances the cost effectiveness of the service delivery system. Risk sensitive investment is enabled through in-depth
analysis provided by Nutrition Surveillance. Analysis of the Surveillance’s cost effectiveness and applied risk sensitivity in investment as well as optimal use by other surveillance and early warning systems in the region was outside the scope of this Review but is recommended for future study.

### KEY MESSAGES

- Nutrition Surveillance fills the nutrition information gap in the system for Karamoja and is aligned to the Uganda Nutrition Action Plan to effectively plan, implement, monitor and evaluate programmes.

- Indicators for nutrition, socio-economic status, hunger and food security, morbidity and immunization, water and sanitation and gender profiles consider inter-dependency of multiple sectors, allowing for greater synergy with sister agencies and harmonisation with HoA regional structures.

- Surveillance reports can be used to measure outcome variables in order to indicate the extent to which malnutrition and food insecurity has progressed based on early response and recovery activities.

- Identified trends led to pre-positioning of stocks and equipment, strengthened technical support supervision or additional services to ‘hot spot’ regions (such as additional outreach services where necessary). Unpredicted spikes in trends or variations in regional ‘hot spots’ led to rapid mass screening to inform early response.

- For surveillance to be representative of different groups and inform multiple end users, population size, districts, livelihood zones and seasonality of the needs of the population were considered through use of 3 stage cluster sampling methodology and revised timing of surveillance.

- Use of standard indicators allows the system to be replicable and scalable.

- Regular surveillance allows for a targeted approach to service preparedness and delivery which enhances the cost effectiveness of the service delivery system. Risk sensitive investment is enabled through in-depth analysis provided by Nutrition Surveillance.
CASE STUDY: ENHANCING COMMUNITY HEALTH & NUTRITION MANAGEMENT THROUGH COMMUNITY MOBILISATION AND BEHAVIOUR CHANGE COMMUNICATION

OVERVIEW

Concern Worldwide is currently implementing the Care Groups model with the objective of reducing malnutrition in pregnant and lactating mothers and children under two years of age in southern districts of Karamoja (2012-2017) as part of the US AID funded Resilience through Wealth, Agriculture and Nutrition (RWANU) programme. Objectives aim to improve health and nutrition practices at the household level as well as service delivery for prevention and treatment of maternal and child illnesses and malnutrition.

The project directly impacts upon MDG 4 and 5 to reduce child mortality and increase maternal health. It also aligns with the Uganda Nutrition Action Plan (2011) Strategy 1.1 to promote access and utilisation of nutrition and health services to all women of reproductive age, infants, and young children, and strategy 1.2 to address gender and socio-cultural issues that affect maternal, infant, and young child nutrition. Intensive behaviour change messaging coupled with provision of conditional food rations to pregnant and lactating mothers and children under two is utilized to improve infant and young child feeding practices; the nutritional and health needs of pregnant and lactating women; water, sanitation and hygiene; and child health.

The relevance of the Care Group model stems from the current weakness of the health system in ensuring transference of knowledge of preventative healthcare into practice at household level. Bridging the gap between knowledge and practice at household and community levels should in turn lend towards more adaptable and effective service delivery.

Over 150 Mother Care Groups have been established with over 1,500 Lead Mothers who work with 17,301 Household Care Group members in conjunction with community and opinion leaders, religious leaders and male change agents. The Care Group approach involves Lead Mothers as community volunteers in the promotion of appropriate health-seeking behaviour among households to enhance early response through access to available health services. Community leaders may be requested to select Care Group Leaders, monitor Care Group activities or lend towards the accountability of paid Health Promoters of the project.

In the Traditional Care Group model that is currently applied in Karamoja, a group of households are overseen by one Care Group volunteer Lead Mother who may or may not be a CHW. A group of these Lead Mothers is led by one paid project staff promoter who is part of a group of such promoters who is supervised by a paid project staff supervisor.

The Integrated Care Group model is the next step in the transition of Care Groups because the Care Group volunteer Lead Mothers who oversee the households are led by a CHW whose group of CHWs are guided by the Health Center staff who in turn are supervised by Health Promotion Technicians and Animators. This model is more sustainable because no extra staff needs to be paid. Based on previous nutrition experience in the region and in-depth research, it was determined that the Integrated Care Group model is not yet appropriate in the context of Karamoja because the network of Village Health Teams are often overworked, still need strengthening and, though each village is supposed to have two, some villages were found to have had no VHT structure. Shifting to the Integrated Care Group model for increased sustainability may become more appropriate in the Karamoja context towards the end of the 5 year project.

HOLISTIC INTER-LINKAGES

An essential element of the Care Group model is intensive training and close follow-up on nutrition and health-specific information. Effective behaviour change communication a) is multi-channelled as understanding and adoption increases with the
frequency and types of contacts used to disseminate them, b) involves negotiation as caregivers feel the situation of their child has been taken into account and c) can be expanded to scale.

The Care Group model is specific to intensive and reinforced health messaging and does not risk impact with over-burdening volunteers with information based on a variety of sectors. However, crosscutting issues are included on gender, conflict mitigation, natural resource management and Disaster Risk Reduction (DRR).

At the national level, Concern Worldwide is a participant in the Scaling Up Nutrition movement and the National Nutrition Forum. The project collects information on vital events including births, deaths, miscarriages and pregnancies through its Care Groups, supports the Government’s health service delivery for prevention and treatment of maternal and child illnesses and malnutrition, is an element of the wider RWANU programme which supports the reduction of food insecurity among vulnerable people in South Karamoja and is aligned to the KIDP and Karamoja Action Plan for Food Security.

Normal times
Care Group meetings are held monthly with Health Promoters and Health Educators and monthly or bimonthly between the Health Promoters and Mother Care Groups. There are then monthly meetings between Mother Care Groups and the Household Caregiver Groups. Lead Mothers also visit the Household Caregiver Groups at their homes on a monthly basis.

The project supports the Government’s health service delivery through a) support to Health Facilities with essential equipment, b) training and supportive supervision particularly on ante and post natal care, Integrated Management of Childhood Illness, IMAM, nutrition screening and growth monitoring, and c) quality and accountability through the Health Institution Capacity Assessment Process and community score card. Support is also provided to outreach services and Village Health Teams through community-based training and technical assistance.

Early Warning, Early Action and Extreme Event
Concern's Surge model for early action was implemented to support the Ministry of Health structures in the treatment of acute malnutrition in 2013. Plans for probable use of the Surge model are underway based on Makerere School of Public Health and FEWS NET food security indicators for 2014. Concern aims to utilize Care Groups in anticipated 2014 Surge response through training of Lead Mothers in the use of Mid Upper Arm Circumference Tapes so that they can screen for malnutrition and refer cases to Village Health Teams.

Disaster Risk Reduction is mainstreamed through the Care Group preventative health care, identification and referral of cases of malnutrition at household and health facility level, and contingency planning for the dry season. The project adapts to the lean season by providing supplemental household rations to prevent use of mother and child rations for general consumption.

Adaptability
The Traditional Care Group model is based on a multiplying effect to create equitable reach. Many in the target group are pastoralist or agro-pastoralist households in a region where the population is scattered geographically and seasonally migratory. The project is piloting a reduction in the number of Lead Mothers within each Care Group from the traditional model of ten to twelve to only four to five so that the distance for each Lead Mother to travel to visit households within her group is reduced. Impact of the piloted, flexible model will be evaluated after several months and will course-correct if required. The project aims to keep Lead Mothers linked to households where possible and to be flexible in reforming groups when there is a large migratory movement. Continuity is required for the behaviour change approach which underlines adaptable nature of the model as it prioritises on-going, regular and undisrupted service.

The model maintains relevance to the needs of the population and their specific contexts as Lead Mother Care Group Volunteers are elected by and are members of the targeted community who are cognisant of the
specific community context. Household visits are targeted to the primary child caregiver, usually a mother, but all family members are invited to participate in the home visits. Health Promoters and Educators pilot lessons and redesign if needed based on feedback from Lead Mothers. Individual counselling during home visits allows messaging to directly target the needs of that household such as with ante natal care messages to pregnant women.

Health Promoters are all field-based in their home sub-county or parish. All Supervisors are district-based. All speak the local language of either NgaKaaimojong or Pokot. All other staff on the project including nutritionists, Programme Director and Health Manager are based in Karamoja.

There are two modules in the training based on affordable food consumption, linking agriculture to nutrition, which are made context appropriate to planting season. If there is a disease outbreak, trainings are made appropriate to include identification of symptoms and preventive health care and complementary outreach support is provided. A separate module on Health User Rights that focuses on what to do if women are mistreated at health centres specifically addresses prevalent protection issues in the traditionally insecure and patriarchal context of Karamoja. The project is made more sustainable because it is based on communication, a soft input, and hence can operate with infrastructure currently available in Karamoja, is adaptable to seasonality, and is not resource heavy.

Figure 48: Traditional Care Group Model
KEY MESSAGES

• The relevance of the project stems from identified weaknesses in the health system in ensuring a) transfer of knowledge of preventative healthcare into practice at the household level, b) quality and accountability of service delivery and capacity building at the health facility level, c) essential equipment provision, and d) current nutritional requirements of vulnerable groups

• Multi-channelled and frequent behavioural change communication requires continuity and has sound foundations with triangulated findings for context specific messaging

• The model is flexible and can be expanded to scale with equitable reach

• Community training is flexible to address arising disaster risk challenges

• The project also supports outreach services and provides community-based training, technical assistance and support to Village Health Teams

• Planning processes recognise the time burden and travel distance placed on Lead Mothers as volunteers in a sparsely populated region and prepare for prioritisation-shift during stress times by allocating increased rations so as to ensure continuity in rations for targeted maternal and child care

• The project adapts to the lean season by providing supplemental household rations to prevent use of mother and child rations for general consumption

• Contingency plans are based on seasonality of needs

• The project sits within a wider resilience building programme which works through multi-agency partnerships
RECOMMENDATIONS:

• The current revision of the 1935 Public Health Act should be used as an opportunity to comprehensively integrate nutrition and Disaster Risk Management into the wider health system. The Health Management Information System should have nutrition indicators.

• The recent addition of food security indicators to the Nutrition Surveillance system should more strategically feed into existing early warning systems in the region.

• A medium-term contingency fund should be created to allow for a rapid, independent, external evaluation and verification of findings of the Nutrition Surveillance reports when peaks in trends call for additional assistance in the region. This action should support early warning triggers for early response and preserve the integrity of the system. In the long-term, the aim should be that early warning from food security indicators will trigger early action, diminishing the need for early response to nutrition trends.
OVERVIEW
Uganda is deemed to be on track with regards to MDG target 7c) to halve, by 2015, the proportion of people without sustainable access to safe drinking water and sanitation. Data shows that 89.6% of the urban target of 100% and 66.6% relative to a rural target of 70% of people are using an improved drinking water source. The proportion of the population using an improved sanitation facility is at 92.6% of the urban target of 100% and 72.8% relative to a rural target of 77% (MFPED, 2013). The 2012 Ministry of Water and Environment (MWE) performance report recorded levels of water supply coverage at 69% in urban areas and 64% in rural areas (MWE, 2012). Those that take more than 30 minutes round trip to fetch water account for 57.9% of the population, while 31.4% take less than 30 minutes and 10% of the population have water on their premises. No water treatment method was used by 61.6% and 27.8% of rural and urban populations respectively (UBOS, 2012).

Finance
In terms of national budget commitments, the Water & Environment Sector accounted for just 3.1% of budget allocation for 2011/12. The downward trend from 4.9% in 2004/05 raised concern that present funding levels are insufficient to meet National Development Plan targets for water supply and sanitation (MWE, 2012). Some of the challenges facing the water sector include environmental degradation, poor water infrastructure development and management, limited adaptation to climate variability and change, institutional and governance challenges and limited financial investment (World Bank, 2011). Risk sensitivity is also required to ensure appropriate and sustainable public and private investment in the water sector.

Challenges
Though Uganda has deconcentrated the Directorate of Water Resource Management functions and services through four Water Management Zones that each require its own management strategy and action plan, there is a dearth of an overarching national and regional land and water management plan to ensure systematic and complementary coverage across eco-systems and sectors.

The Constitution and the Land Act (1998) stipulate that location of water supply projects must respect the proprietary rights of the landowner or occupier. The Land Sector Strategic Plan (2002) identifies pastoralists as a group with insecure land rights. Land tenure and access and grants for water rights in the development of water infrastructure are key concerns for the Karamojong population who inhabit the region most susceptible to drought. Karamoja has highly fragile ecosystems in which the hydrological cycle and biodiversity can be particularly compromised by environmental degradation and increased settlement in water catchment areas and related agricultural inputs (Nalule, 2010). Furthermore, agriculture at the household level is largely rain-fed dependent which, in a region with prolonged dry seasons, leaves families susceptible to cyclical trends and shocks, compounding the cycle of poverty. This highlights the need to support proactive Integrated Water

Water quality in Karamoja has been greatly compromised by a number of factors such as lack
of separate animal watering points, poor siting of water sources, poor sanitation and hygiene, poor farming practices, poor groundwater abstraction methods and containers used and lack of sewerage in the urban areas (ACF et al, 2012). Adequate, accessible water supply ‘is hampered by inadequate financial resources, poor accessibility to safe water supply points, scattered settlements and inadequate education and awareness on hygiene’ (OPM, 2010).

There are key fundamental issues relating to availability of data in Karamoja including inadequate monitoring stations, limited access to a centralized data management system, inadequate skills and lack of software for data management at district level and inconsistent data collection (ACF et al, 2012).

Water should be in adequate supply and quality for efficient public service delivery and self supply of water. For service delivery to be adaptable, water sources must be safe-guarded and used appropriately during both dry and rainy seasons. Structural and non-structural local activities are required to limit the adverse impacts of natural hazards and environmental degradation that affect water supply. Such activities should feed into broader water and land use plans that uphold statutory and traditional participatory decision making structures to ensure the accessibility of water supply. Furthermore, natural resource and disaster risk management should be integrated into water related plans and activities.

**Policy review**

The National Development Plan (2009/10-2014/15) cites water resources management, wetland management, environment management, climate change management and meteorology as among the sectors linked to the ‘Growth, employment, socio-economic transformation for prosperity’ theme.

The Ministry of Water and Environment (MWE) is mandated by the Disaster Preparedness and Management Policy (2010) to lead on policy actions for natural hazards of drought and floods. The Operational Strategy for Water and Environmental Sanitation Emergency Response in Uganda (2004) has key strategic objectives and actions to build capacity and develop processes to respond to the water and sanitation needs of existing Internally Displaced Persons, and the needs of populations affected by future emergency and disaster situations.


The National Water Quality Management Strategy (2006) recommends the establishment of emergency management plans by all service providers for water related emergencies. This was to contribute to the achievement of the Poverty Eradication Action Plan Pillar 3 focus area of emergencies, risk and uncertainties.

The MWE is drafting a Rain Water Harvesting Policy to target water for domestic use and small scale irrigation schemes to fight water shortage in drought-prone areas. The Self-Supply Strategy aims at promoting self-help initiatives in communities and households to improve their water supply with little or no external assistance. The Operation and Maintenance Strategy emphasize community based maintenance for rural water supply. Vulnerability is targeted through the MWE’s Pro-Poor Strategy for Water and Sanitation which promotes continuous monitoring and assessment through the development of real-time monitoring and early warning systems. The Water Supply and Sanitation Gender Strategy emphasize equity in access and control of resources in the water and sanitation sector through empowerment of women, men and vulnerable groups.

**Sector approach**

The Ministry of Water and Environment (MWE) has institutional responsibility and oversight of the water sector and consists of the three directorates of Water Development, Water Resources Management and Environmental Affairs. A Water Policy Committee promotes inter-ministerial and inter-sectoral collaboration and coordinates water quality standards. Institutional support structures related to the deconcentration of the sector include Technical
Support Units, Water & Sanitation Development Facilities and Water Management Zones. Four regionally based Water Management Zones were established to carry out catchment level Integrated Water Resource Management.

The approach to the water sector in Karamoja is outlined by the Karamoja Integrated Development Plan (KIDP). The KIDP recommends an intensification of development interventions in the provision of water through enhancing functionality of existing facilities, promoting harvesting technologies and providing sufficient water for production facilities and for consumption and sanitation facilities. The KIDP agricultural sector also has direct water-related objectives of increasing crop production and productivity, enhancing the functionality of existing facilities and restoring and revitalizing degraded areas.

The World Bank Northern Uganda Social Action Fund II 2009-14 ($100m) (NUSAF II) and EU Karamoja Livelihood Programme (KALIP) 2010-15 (€15m) are aligned to the KIDP and work in partnership with District Local Governments, Development Partners, INGOs and the OPM in collaboration with the MWE and Ministry of Agriculture, Animal Industries & Fisheries to implement water projects. The EU is also funding a groundwater mapping programme in the region.

The Government of Uganda and Development Partners are currently developing a Joint Water and Environment Sector Support Programme (2013-2018) which includes efforts to provide weather information, forecasts and warnings along with climate and hydrological data analysis that can be used in the planning and management for early warning and disaster preparedness. This programme will include the Environment and Natural Resources Sub-sector to improve the overall sector coordination, synergy and efficiency in resource utilisation. The MWE plans to invest further through a Water Management and Development Project (2013-2018) to be funded with a World Bank loan (USD 135m). Furthermore, a new Water Supply and Sanitation Programme was also prepared to be funded with a Units of Accounts loan (€40m) and an African Development Bank grant (€4m) (MWE, 2012).

CASE STUDY: BUILDING RESILIENCE TO DROUGHT THROUGH NATURAL RESOURCE MANAGEMENT IN WATER CATCHMENT AREAS

Overview
Action Contre la Faim (ACF) and International Union for Conservation of Nature (IUCN) are currently implementing the ‘Building Resilience to Drought through Natural Resource Management in Catchment Areas’ project in the Okok water sub-catchment area within the Kyoga Water Management Zone (KWMZ), with financial support from ECHO. The Okok water sub catchment comprises nearly half a million people (ACF et al, 2012).

Integrated Water Resource Management (IWRM) and Natural Resource Management (NRM) approaches support the protection of the Okok water sub-

Figure 50 : Okok Sub Catchment, Karamoja
catchment by conducting a) participatory vulnerability mapping and ecosystem-based action plans at local levels, b) data collection on hydrology socioeconomic and environmental health, and on local water and NRM governance to inform IWRM programming and the creation of briefs and guidelines for NRM-based advocacy and c) the creation of an IWRM Plan at sub-catchment level. Structural and non-structural local activities are undertaken to limit the adverse impacts of natural hazards and environmental degradation. The project aligns with the Hyogo Framework for Action, Priority Action 4 to reduce the underlying risk factors: sustainable ecosystems and environmental management.

**HOLISTICALLY INTERLINKED**

**National, regional and local linkages**

Building the resilience of ecosystems in Karamoja fulfils objectives of the National Development Plan, the Karamoja Integrated Development Plan, and District Development Plans. This project supports the Government structural arrangements of the water sector through its technical analysis and reports based on the sub-catchment area related to the Kyogo Water Management Zone. It also directly addresses ‘hotspot’ catchment key justifiers identified in the Operationalization of Catchment-based Water Resources Management report (COWI, 2010). The Decentralisation of some water resources management functions to the lower levels of sub-catchment and Water Management Zones aims to develop enhanced sustainability and cost effectiveness of water supply and harness stakeholder participation including that of user communities.

Regional and local linkages and partnerships are strengthened through involvement of District Natural Resource, Forest, Water, Community Development, and Environment Officers as the core planning team of the Okok Sub Catchment IWRM Plan. There is involvement of the Resident District Commissioners, Local Chairpersons, Chief Administrative Officers, and representatives of civil society of 5 districts of Karamoja at consultative meetings and planning workshops. The project also strengthens linkages between Local Districts Officials, Water User Associations, Village Committees, traditional leadership and statutory bodies.

**Sectoral linkages**

Water and sanitation are interdependent sectors and one of the criteria for accessing the Community Environment Conservation Fund is evidence of having at least one sanitary facility in the homestead.

Natural Resource Management interventions would benefit from linkages with District Disaster Management Committees in order to encourage output linkages to local Disaster Risk Management (DRM) contingency plans. Water resource challenges identified in the Okok Sub Catchment Plan include scarcity and quality of the resource, natural hazard triggered disaster events, environmental degradation, weak governance, insufficient data and weak data management. Given the similarities in challenges with those in other sectors and interdependence on natural resource management, a complementary and interlinked risk management strategy for the region is required.

**Normal Times**

The project aims to improve understanding of the status of the natural resources and the underlying causes of vulnerability in the area of Okok sub-catchment using the CRiSTAL vulnerability assessment tool which allows for consideration of short term coping mechanisms as well as long term resilience to hazards. The participatory approach used in natural resource capacity building activities and the creation of integrated water resource management-based action plans encourages linkages between local government and communities.

Application of Integrated Water Resource Management, as envisioned in the National Water Policy (1999), is made specific to each community and wider sub-catchment ecosystem for local level actions, knowledge and ownership through vulnerability mapping and Community Environment Action Plans. These Action Plans are then approved for implementation at sub-county council and parish local council levels and household level implementation is encouraged through access to a Community Environment Conservation Fund. The Okok Sub Catchment Integrated WRM Plan is approved for implementation by the Chairpersons and Local Council V of 5 District Local Governments. ‘Normal time’ drought mitigation through conservation and protection of water catchment areas builds the fortitude of the water system against extreme events. Water governance is promoted through the creation of
Figure 51: Water Delivery Linkages
Water User Associations and one Inter-District sub-catchment management structure that brings together statutory and traditional systems. Such structures are normally responsible for water harvesting, promoting efficient water usage and water resource level monitoring. A key element of the project is also to promote the IWRM approach through documenting lessons learned and guidelines based on practical experience and disseminating them through a database and monitoring network.

**Early Warning, Early Action & Extreme Events**

Although the Disaster Preparedness and Management Policy and Operational Strategy for Water and Environmental Sanitation Emergency Response Strategy dictate the need for preparedness and contingency plans for early action and extreme events, the general project aim is to use IWRM to prepare for and mitigate the impacts of dry seasons and droughts such that less early response and extreme event activities are needed.

Water resource monitoring and the database and monitoring network, however, could contribute to surveillance and early warning indicators such as the ‘safe water source’ indicator of the Nutrition Surveillance or the data quality control system of the Drought Early Warning System. The project could also create stronger linkages with Disaster Risk Management contingency plans in the region, particularly if funding is found for the next multi-annual implementation phase of the project. If so, together with other community and government early warning mechanisms, such a system could trigger DEWS early warning that triggers initiation of a contingency plan that includes such early action activities as rationing, information sharing and awareness raising, rapid and more regular monitoring and assessments of both water levels and water-borne diseases and on-the-job training for relevant early action skills that are lacking.

Similarly, insufficient water to meet user needs could trigger extreme drought event OCHA WASH cluster activation and coordination with the water user association such activities as further on-the-job training for lacking skills related to extreme droughts, increased water and water-borne disease surveillance, extreme rationing and provision of alcohol millet for children and migration both in and out of the community depending on human, livestock and facility needs and decision regarding prioritization of use.

**IMPACTS**

Objectives of the project are 1) Improved understanding of the status of the natural resources, and the underlying causes of vulnerability in the area of Okok sub-catchment, 2) Improved institutional capacity of local people to develop and implement natural resources management plans, indicating how to address the identified causes of vulnerability and degradation, and 3) Greater knowledge of integrated natural resources management within policy forums and region-wide learning groups. Intended outputs include a database and monitoring network, dissemination of guidelines and study report on key maps produced, plan for the Okok Sub-Catchment area, vulnerability map and ecosystem-based priority actions at community level.

**ADAPTABILITY**

*Undisrupted service*

Drought mitigation and adaptation activities developed in the Sub-Catchment IWRM Plan and Community Environment Action Plans aim to lessen the degree of disrupted water service through protection and restoration of water sources and to improve the quality of water supply in dry seasons. Activities include tree and grass planting along river banks and water points, creation of wood lots, use of live fences and use of effective traditional water harvesting methods as appropriate to each area in the catchment.

Information management is necessary for water delivery systems to target resources and ensure adequate coverage and quality of water service.

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3 Based on proposals and initial outputs of the project rather than final report or evaluation for the Karamoja setting, however the implementing agency has carried out similar projects in other regions. The Project is due for completion by last quarter of 2013.
When appropriate data feeds into information systems, improved analysis of trends and shocks to the water supply can be achieved. In turn, informed management decisions can be taken for more efficient public water supply that can support the continuum of service delivery during both dry and rainy seasons. Such information can also be used to measure outcome variables of water-based interventions in the sub-catchment area and can justify future funding requirements in the sector to maintain regular service delivery.

**Anticipating future needs**

Knowledge and skills developed by communities and local officials through identifying and mapping the causes of vulnerability and degradation at the community level builds their capacity to identify future needs as outlined during the creation of Community Environment action Plans.

Data collection should feed into existing surveillance and early warning systems in the region through the use of harmonized indicators to avoid duplication and gaps. Strengthened information systems can be used to ascertain thresholds of water sources during dry and rainy seasons which can then be used to anticipate seasonal water needs of communities when coupled with information based on water services demand of communities. This analysis could strengthen Disaster Risk Management contingency planning.

**Context relevant**

Outputs of the project are context relevant in that they are based on the ecosystem of the Okok Sub-Catchment area, aim to promote the IWRM approach upheld in current Government Policy through participatory decision-making mechanisms, and support the water sector in a semi-arid region. Both the community-based actions plans and sub-catchment level plan are multi-annual with a review component in the former to maintain relevancy.

**Do No Harm**

Water is a valuable resource in a semi-arid region and therefore Do No Harm principles are particularly apt in this historically insecure region. The Sub-Catchment Plan addresses conflict prevention through its collaboration of both traditional and statutory governance structures. Traditional administrative hierarchy and community elders are responsible for social harmony among clans and sub ethnic groups as well as ensuring that customary rules are followed.

**RESILIENCE STRENGTHENING**

**Knowledge & ability to adapt**

Project objectives of transferring understanding of the status of the natural resources and improving institutional capacity to address the identified causes of vulnerability and degradation allow for increased ability to adapt water provision services in anticipation of dry seasons and drought. The data component of the project serves to better inform water service delivery mechanisms. Planned region-wide dissemination of guidelines and lessons learned during practical application of Integrated Water Resource Management through the Water Learning Group should help further adaptation at the policy level.

**Basic service access**

The project supports communities to protect their water sources, improving the quality and quantity of water through a dual approach of self-supply and public service delivery at local level. As the self-supply approach increases ownership, it also increases access to the resource.

The Community Environment Action Plan objective of demarcating and restoring pasture lands, migratory routes, livestock mobility and watering points also aims to increase water quality as it formally recognises access points for animal and human water consumption. Better quality water positively impacts the overall health status of the community.

**Participatory decision-making**

A participatory decision-making process is used that takes communities through training, identification and mapping of vulnerability and degradation and then through the creation of Community Environment Action Plans with the involvement of Local Government. Community-based creation of action plans encourage community activism on issues identified as needing support and create direct linkages to delivery assurance through public service officials in Local Government.

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8 The Water Learning Group takes a long term view on managing emergency interventions by incorporating water resources management in the drylands. The Water Learning Group aims to share knowledge and learning on effective integrated land and water management in the drylands, promote good practice principles and influence policy using knowledge generated and shared through the REGLAP consortium.
Intended

- Understanding of status of natural resources & of causes of vulnerability
- Local capacity to develop/implement plans to address causes of vulnerability & degradation
- Knowledge of integrated natural resource management in policy forums & learning groups

Adaptability

- Drought mitigation reduces impacts & disruptions of quality & quantity
- Good data, informed management, less disruptions
- Community-based plans based on the area developed in participatory process
- Identifying and mapping vulnerability help communities identify future needs
- Data informs preparedness action for dry season & drought
- Understanding of traditional and statutory systems

Resilience - Strengthening

- NRM capacity building at community/district levels
- Region-wide guideline/lessons learnt dissemination
- Knowledge of IWRM & ability to adapt
- Demarcation and restoration of pasture lands, migratory routes, livestock mobility and water points increase access to water
- The dual approach of self-supply and public service delivery improves quality and access of water
- Community-based creation of action plans & community activism
- Ability of communities to demand more from local official and less from outsiders
- The Environmental Conservation Revolving Fund gives households money needed to implement CEAP activities

Equitability

- Representation from each homestead and vulnerable group
- Involvement of pastoralists in the project likely to result in them carrying NRM skills when they migrate

Sustainability

- Aligned with government policy and strategy
- Participatory decision making with traditional and statutory recognition promotes sustainability
- Data sustainability dependent on retention of monitoring network, handover & linkages

Cost Effectiveness

- Nonstructural activities used in CEAP are low cost endeavors compared to water infrastructure projects
- NRM and IWRM promote community awareness of natural resources as assets that can be used and protected in a sustainable and cost effective way

Figure 52: Wash Impact Diagram
Village and Parish Committees are allocated with the responsibility for coordination of natural resource management activities.

Objective 2 on water governance of the Sub-Catchment Plan includes the development of a ‘gender plan’ that guides women participation in water catchment management meetings and activities, while carefully observing customary norms and practices. Gender and youth representation are noted in the Community Environment Action Plan formulation of Village Committees.

Ability to meet needs
The project also has a component for the community to access the Environmental Conservation Revolving Fund at household level as an incentive for implementation of the activities in the CEAP. The funds can only be accessed with approval from the Village Environment Committee in consultation with and approval at a village assembly. The funds are limited and must be repaid.

Equitability
Community Environment Action Plans used separate women and men groups in consultations so as to ensure the voice of each in actions plans and Village Committees consists of at least one representative from each homestead in the village, at least 40% females and have youth and elder representation.

Community members are predominantly pastoralists with in-depth knowledge and experience of traditional coping mechanisms such as migration of livestock during stress times. Their participation in this project encourages sustainable natural resource management that can be applied to each location to which they migrate.

Sustainability & Cost-Effectiveness
Outputs of the project include briefing notes and guidelines on application of Integrated Water Resource Management (IWRM) with lessons learned which, if disseminated effectively, should achieve impacts at regional and policy levels in particular. Sustainability of the data gathering and analysis component is dependent upon the monitoring network set in place to ensure staff retention, asset repair and data analysis, its handover and linkages to existing data systems such as those for early warning and the Water Atlas.

For the Okok Sub Catchment IWRM Plan to be sustainable, resources need to be mobilised to ensure its planned implementation of activities up to 2016. The Plan requires an exit strategy and thorough handover to existing District and Zonal Offices which considers capacity building, retention of skills and a review mechanism to allow for adaptation to changing contexts. The fact that the Plan ensures collaboration of existing traditional and statutory structures supports its sustainability.

Non-structural activities such as regulation on access of water points, soil and water conservation are normally low cost endeavours and more adaptable to changing environments when compared to water infrastructure projects and their maintenance.

The Environmental Conservation Revolving Fund should create linkages to broader Village Saving
and Loan Associations where possible to support its sustainability. The Fund could **limit self-supply initiatives and restrict the replicability of the project** by other communities.

Natural Resource Management and Integrated Water Resource Management approaches promoted at community level by this project increase awareness of **natural resources as assets** that, if protected, can be used sustainably and more cost effectively. For example, the Community Environment Action Plan entails the establishment of a wood lot, the use of live fences, demarcation of degraded areas for restoration or protection and the restoration of Akrikets where necessary.

**Recommendations:**
- Adaptable, overarching national and regional land and water or natural resource management plans are needed to ensure systematic and complementary coverage across eco-systems, sectors and borders
- Analysis of the self-supply approach to water provision beyond gathering of experiences with cost analysis to justify possible subsidies, technical support and advice for communities that share the burden of supply with the state should be conducted in the region
- Recommendations should be reassessed with a view to implement those made by the National Water Policy (2009) on assessing the response of the water resource in times of emergency and formulating a detailed response plan, and those made by the National Water Quality Management Strategy (2006) on the establishment of emergency management plans for all service providers for water related emergencies

**KEY MESSAGES**
- Mitigation of drought through conservation and protection of water catchment areas during 'normal times' builds the fortitude of the water system against extreme events
- Natural Resource Management and Integrated Water Resource Management approaches promoted at community level increase awareness of natural resources as assets that, if protected, can be used sustainably and more cost effectively
- Dual self-supply and public provision approaches can be used to enhance the protection of water resources
- The Sub Catchment level plan acknowledges and links the role of both traditional and statutory bodies in water use and management in establishing functional Water User Associations and an Inter-District sub-catchment management structure
- The demarcation and restoration of pasture lands, migratory routes, livestock mobility and water sources aims to increase water quality as it formally recognises access points for animal and human water consumption which in turn have impact on the overall health status of the community
- Dual bottom-up and top-down approaches can be applied to Integrated Water Resource Management through community participation in vulnerability mapping used to feed into participative ecosystem-based action plans, in alignment with Sub-Catchment level Plans.
Within the Uganda UNICEF Country Office, Protection is treated as a separate sector. To simplify reporting for this Review and consistency with reporting for the other countries, Protection and Social Protection are combined in this chapter. Protection was reviewed in relation to internal migration and violence against women as it directly relates to the case studies identified during field-based research below. A complete and more in-depth Protection analysis was outside the scope of this Review.

CONTEXT, POLICY AND APPROACH

OVERVIEW

According to the Ministry of Gender, Labour and Social Development (MGLSD), social protection is all public and private interventions that address vulnerabilities associated with being or becoming poor. Social protection is a direct link to populations that face multi-dimensional threats of poverty and vulnerability such as the elderly, women, persons with disabilities, those with high household dependency ratios, those in remote locations and children. Social protection directly reduces poverty and is a pre-requisite for achieving national development goals by laying the foundation for building productive livelihoods, enabling access to services and ultimately leading to a life of improved security and dignity (MFPED, 2013).

Although Uganda’s economy has shown consistent signs of growth, a significant portion of the population still lives in poverty or risks falling into poverty. In 2012, the incidence of poverty in the Karamoja sub-region was 75%, compared to 24.5% nationally. Furthermore, poverty in Karamoja has not fallen as quickly as the rest of the country, reducing only 5% between 2005 and 2010 compared to the 21% reduction nationally (UNHS, 2010).

Specifically regarding Trafficking, Karamojong child out-migration is a traditional coping mechanism to times of stress which has expanded in recent years to include additional Kariaojong groups and destination areas. As such, there is both a traditional and more recently developed social network for out-migration; for the latter, host networks are often unknown by the migrants, which exacerbate the associated migratory protection issues. Since November 2011, the International Office of Migration (IOM) has assisted with the rehabilitation of 179 children from Karamoja, who were trafficked to Kampala for labour exploitation (IOM, 2013). Current levels and types of social service assistance received by the affected individuals, households and communities are unlikely to adequately meet their needs (IOM, 2012). A sample study of Moroto and Napak districts conducted in 2012 found that for every 100 households, 45 children have migrated (IOM, 2012).

A primary driver of violence against women is the deeply entrenched existing power imbalances between women and men in highly patriarchal societies such as Karamoja. Women’s representation in decision-making is increasing but is not equal. In 2011 women accounted for 24% of cabinet members and 31% of parliamentarians. However, women are highly underrepresented in senior positions in government with only 17% of such positions held by women. Inequalities continue in female access to higher education, property ownership and decision-making. There are significant gaps between men and women’s literacy rates, access to productive resources and economic opportunities.

A high proportion of women who justify wife beating indicate that women generally accept the right of a man
to control his wife’s behaviour through violence. This perception can act as a barrier to prevent women from accessing health care for themselves and their children. Nationally, about 6 in 10 women aged 15 to 49 agree that a husband is justified in hitting or beating his wife for specific reasons (UBOS, 2012). Violence against women is rarely redressed, leading to a very limited number of cases being reported (ORC, 2011).

**Finance**
The Government has committed to scale up its financial support incrementally over a period of time for the Expanding Social Protection Programme as accounted for in the national budgeting processes. Approved budget estimates for 2011/12 were at just over 10bn Uganda shillings and Budget Projections for 2012/13 and 2013/14 were just under 40bn and 50bn respectively (MFPED, 2009). The MGLSD has developed a national roll-out plan for Senior Citizen Grants of the Expanding Social Protection Programme and is currently in funding negotiations with the Ministry of Finance, Planning and Economic Development. Roll-out to one district with 11,700 beneficiaries has already started with Government of Uganda funds.

**Policy review**
The linkage between social protection and the realisation of people’s rights is enshrined in the **Constitution of the Republic of Uganda, 1995**. Social protection is mandated through the provisions for the welfare and maintenance of the aged; the enactment of legislation establishing measures that protect and enhance the right of the people to equal opportunities in development; and the provision that all Ugandans shall enjoy rights and opportunities and access to education, health services, clean and safe water, work, decent shelter, adequate clothing, food security and pension and retirement benefits.

The **National Development Plan (NDP) (2009/10-2014/15)** recognises social protection as one of key strategies for transforming Uganda to a modern and prosperous country. The NDP emphasize provision of comprehensive social protection measures for the different categories of the population as a measure to reduce vulnerability and enhance productivity of the human resource.

The **Karamoja Integrated Development Programme (KIDP) (2011-2015)** makes reference to ‘Social Protection and Food Security for Poor and Vulnerable Households’ which contains objectives to improve income security, improve food and nutrition security and improve access to basic services among poor and vulnerable households;

The **Policy for Disaster Preparedness and Management 2010** emphasize the critical importance of restoring and maintaining the quality and overall welfare and development of human beings in their environment. It advocates for an approach to disaster management that focuses on reducing the risks of loss of life, economic loss and damage to property.

The Government of Uganda is currently developing a **Social Protection Policy Framework**. This Policy Framework recognises the need to provide non-contributory social security benefits to the poorest and most vulnerable citizens to enable them to meet their basic needs, mitigate their livelihood shocks, access social services and facilitate their inclusion in the development and social transformation process.

There are also a range of policies that account for delivering elements of social protection such as the **National Orphans and Other Vulnerable Children Policy (2004)**, the **National Policy on Disability**, the **National Policy for Older Persons (2009)**, the **National Youth Policy**, the **National Equal Opportunities Policy (2006)** and the **Gender Policy (2007)**.

The **Prevention of Trafficking in Persons (TiP) Act (2009)** does not make reference to situations of out-migration caused by drought and famine but does outline that victims of trafficking in persons will be accorded the available health and social services, medical care, counselling and psychological assistance. **The Disaster Preparedness and Management Policy (2010)** acknowledges the role that famine and drought have in relation to the increase in migration. **The 2013 National Action Plan to Combat Trafficking in Persons** is Uganda’s 5-year road map to coordinate efforts and mobilise resources against TiP in Uganda.
A strategic shift has taken place in development strategies with Government and aid agencies effectively scaling down blanket food assistance whilst scaling up activities to support the growth of productive livelihoods for those individuals and households who are able to work (MKA, 2011).

MGLSD, with support from UKAID, Irish Aid and UNICEF is rolling out a programme of Direct Income Support made up of Senior Citizen's Grants and Vulnerable Family Grants. In addition to the Social Assistance Grants for Empowerment Programme (SAGE), there are similar public works programmes specific to the North, such as the NUSAF, Karamoja Livelihoods Improvement Programme, CAIIP, Agricultural Livelihoods Recovery Programme, Development Assistance to Refugee Hosting Areas programme and Restoration of Agricultural Livelihoods.

Furthermore, WFP are delivering components of the Government's NUSAF II programme and have built on the WFP Karamoja Productive Assets Programme (KPAP): a response to the WFP strategic shift from food aid to food assistance. NUSAF II (WFP) consists of three main components: i) a Public Works Programme, ii) a Household Income Support Programme and iii) institutional development (IOD PARC, 2012).

The Ministry of Internal Affairs and Ministry of Gender, Labour and Social Development has responsibility for migration related oversight and protection against trafficking. The Government established the Coordination Office to Combat Trafficking in Persons (TiP) in 2012 under the Ministry of Internal Affairs. This office is tasked with coordination of all national country TiP activities and with planning for future interventions and mobilising resources within and external to Government. In relation to Gender Based Violence the Ministry of Gender, Labour and Social Development contains a Directorate of Gender and Women Affairs which is mandated to promote gender equality and women's empowerment.

The National Task Force to Combat Trafficking in Persons includes two representatives from 14 government agencies combined with a representative from the 'Ugandan Coalition Against Trafficking In Persons' and the International Organisation for...
Migration (IOM). The Government of Uganda works with the IOM to implement the Coordinated Response to Human Trafficking in Persons (CRTU) project to prevent human trafficking, protect victims of human trafficking and prosecute human traffickers.

The Government has implemented prevention programmes which aim to increase community awareness on and reduce social tolerance of Gender Based Violence, and ensure that perpetrators are reported and appropriate action taken in accordance with State laws. In order to strengthen the response, the Government has emphasised a multi-sector approach particularly in provision of services to victims and survivors (Nakadama, 2013).

**CASE STUDY: ENABLING THE ELDERLY GREATER ACCESS TO BASIC SOCIAL SERVICES THROUGH SENIOR CITIZEN GRANTS**

**Overview**

The 5 year Expanding Social Protection Programme aims to embed a national social protection system that benefits the country’s most vulnerable and excluded citizens as a core element of Uganda’s national policy, planning and budgeting processes (MGLSD, 2013). It is implemented by the Government of Uganda, through the Ministry of Gender, Labour and Social Development (MGLSD), in partnership with UKAID, Irish Aid and UNICEF. The programme is well received by public and political leaders. The programme includes a cash transfer pilot component known as the Social Assistance Grants for Empowerment (SAGE) scheme which is being piloted in 14 districts, 4 of which are in Karamoja. SAGE, in turn, consists of two schemes: the Senior Citizens Grant and the Vulnerable Families Grant. Direct Income Support is at the core of the programme which provides regular cash transfers to individuals or households to ensure a minimum level of income security.

By the end of 2013, over 106,000 people had been reached directly, of which more than 21,300 were living in Karamoja. Cash transfers are found to have a range of positive effects on reducing poverty and hunger while increasing access to health and education services.

**National, District and Community Linkages**

The programme is Government-led and owned through the Ministry of Gender, Labour and Social Development in partnership with Donor agencies. The pilot scheme is intended to generate empirical evidence and test mechanisms, principles and systems to support the formulation of a national social protection policy framework (MGLSD, 2013). This fulfils the MGLSD commitment under the Disaster Preparedness and Management Policy to design programmes that involve and benefit the most disadvantaged groups and furthers the National Development Plan intent to review and upscale social protection.

The system is managed by the MGLSD’s Social Protection Secretariat and its sub-national offices working in partnership with District and Lower Local Governments who support training, community mobilisation, beneficiary registration and paypoint monitoring activities. Verification of eligibility is conducted with reference to voter cards, birth certificates and baptism certificates. Where these are not available, Village Councils are asked to verify the eligibility of individual applicants based on reference to local or national historical events or peers (MGLSD, 2013).

**Adaptable service delivery and resilience-strengthening**

Provision has been made for those eligible to be in receipt of the Senior Citizen’s Grant for the duration of the pilot programme, that is, up to 2015 or unless they pass away. The programme provides regular and predictable cash payments on a monthly basis (MGLSD, 2013) allowing beneficiaries flexibility to utilise those funds in adapting to their seasonal needs. The cash transfer sites are mobile and can be adapted to needs of the programme. Recipients can nominate alternative individuals to collect payments on their behalf if they are unable to do so themselves due to other commitments, ill health and distances too far to travel for elderly people (ODI, 2013). The programme was shown to be adaptive to context in reducing the age of beneficiaries under the Senior Citizens Grant in Karamoja to 60 compared to beneficiaries receive a monthly grant of UGX 23,000 [2011 value]. This amount is however revised annually to allow for inflation. This amount represents about 20 per cent of the monthly household consumption of the poorest of Uganda’s population. The amount is sensitive to what is affordable at national scale. It is also in line with similar programmes around the region (about US$8). Evidence from other countries shows that even such small payments, if paid regularly and predictably, make a huge difference to the lives of poor and vulnerable individuals and families’ (MGLSD, 2013).
the national average of 65 years.

Cash transfers to vulnerable elderly groups can build self-esteem, status and empowerment, and enable the elderly to be financially-active members of their households and communities dispelling the perception of burden (ODI, 2013). The **predictability of cash transfers allows for longer-term over short-term planning** as a household. The MTN money transfer system can act as a mobile banking and saving scheme which caters for saving and accessing funds during times of need and vulnerability.

In Karamoja, 16% of those in receipt of the Senior Citizen Grants (SCGs) have put a portion towards savings reportedly used to cover emergencies (20%), to support productive investments (17%), cultivation (15%) and meeting the education needs of children/grandchildren (14%). A large proportion of the SCG is spent by the majority on food, the increased frequency, quantity and quality of which have long term benefits to nutritional status. The Grant allows for **greater access to social services** in that almost half of SCG recipients have reported putting some of the cash transfer towards school fees and materials and just over half have used this money for medical care (MGLSD, 2013).

Payments are responsive to the needs of the population and the context of the Karamoja region which has been traditionally dependent on food relief in times of drought, food insecurity and conflict. Cash transfers **provide an alternative or complimentary coping mechanism** to traditional ones, such as the reliance on food or cash support from extended family or community, borrowing money, going without food or making distress sales at particular times such as drought scenarios.

Cash transfers can have a multiplier effect and act as a stimulus for economic activity in poorer communities. As money is spent locally on **basic needs** (food and household items), social services (healthcare, school materials) or **productive assets, local markets are stimulated** which encourages trade and production, leading to a more resilient community (ODI, 2013).

**KEY MESSAGES**

- Senior Citizen Grants are well received by public and political leaders lending towards sustainability of the programme
- A regular and predictable source of income/cash transfer as an alternative/complementary coping mechanism allows for more long term planning and savings which builds the resilience of households to drought
- A flexible programme that enables individuals to prioritise and respond to their own needs also allows for the likely increased access to social services and flexibility for seasonal priority-shift
- Recipients can nominate alternative individuals to collect payments on their behalf which takes into account other commitments, ill-health, and distance to travel for elderly people

**CASE STUDY: ENSURING BROAD ACCESS TO SOCIAL SERVICES IN SUPPORT OF RESETTLEMENT AND REINTEGRATION OF KARIMOJONG STREET CHILDREN THROUGH DUAL LOCATION SERVICE DELIVERY**

**Overview**

The Coordinated Response to Human Trafficking in Persons in Uganda (CRTU) of the International Office of Migration (IOM) acts as a response to human trafficking and exploitation of Karamojong street children in Kampala and other major towns. The goal is to rescue children from situations of exploitation and trafficking, facilitate their return to a safe environment and mitigate factors that may lead to their re-exploitation and potential re-trafficking. The project is funded since 2011 by the Royal Norwegian Embassy and implemented in coordination with the Ministry of Internal Affairs and the Ministry of Gender, Labour and Social Development.
Main push factors for out-migration from Karamoja include food insecurity, single parenthood, ethnicity and community disintegration. From 2012 through September 2013, 164 Karamojong children have been assisted by this project, 91 of whom were female, 76 of whom were aged between 5 and 9 years, and 52 of whom were aged between 10 and 14 years (IOM, 2013). Drought creates trends and shocks that undermine household coping mechanisms and access to basic services. The CRTU addresses these problems by coordinating provision of social services for immediate response to needs of children in host communities and addressing underlying causes of out-migration in communities of origin.

**Holistically Interlinked**

At the district level in Napak and Moroto, the project coordinates activities through the District CAO and includes the District Probation Officers and other relevant officials in follow-up visits, family tracing, community sensitisation activities and the return of beneficiaries back to their families. Local Government capacity is built through provision of training on relevant topics such as Protecting Child Victims of Trafficking, or Victim Identification and Interview Techniques.

IOM works with the Government of Uganda with children who are taken off the streets of Kampala and brought to the Kampiringisa National Rehabilitation Centre (KNRC). It collaborates through service agreements with 5 implementing partners: Dwelling Places and UWESO in Kampala and CSD, ARELIMOK and CLIDE in Karamoja. Activities implemented as part of this project include Coordinated Case Management, Victims of Trafficking Database, Direct Technical Assistance, Community-based Socio-economic Services, and Prevention and Awareness Raising (IOM, 2012).

Holistic service delivery for trafficking is achieved through activities on a) **prevention** based on awareness-raising, understanding of root causes and vulnerabilities, and community based socio-economic services, b) immediate and **on-going protection** through direct service provision and capacity building of service providers, and c) **prosecution** for proactive deterrence and perpetrator identification.

**Adaptable service delivery**

In order to deliver comprehensive care and management, IOM coordinates the different services provided by implementing partners. The process entails interagency referrals and case-based reimbursement for the specific services offered to a client by a Service Provider. Maintaining partnerships with a range of service delivery providers in strategic locations allows for adaptable, needs-based service delivery. Coordination of service delivery in dual host and origin communities also enhances information management which in turn lends towards greater adaptability of preventative and response services.

Comprehensive assistance to beneficiaries includes identification, screening, family tracing, return, reintegration, follow up consultation visits and transitional assistance, including social service provision of housing, medical, nutritional feeding, education, counselling, and sanitation. The reintegration efforts usually also involve placing the children in school and assisting the family and community members with socioeconomic livelihoods training and inputs. Taking a **dual approach to service delivery** in Karamoja and Kampala ensures an **on-going, regular and undisrupted linked service** which strengthens the likelihood of sustainable reintegration in Karamoja. Furthermore, this dual approach to location serves as a deterrent to the migration/trafficking social networks in both regions that play a central role in facilitation child out-migration.
Coordinated response to trafficking in Uganda

Prevention
- Targeted awareness
- Understanding root causes & vulnerabilities
- Community-based economic services

Protection
- Direct assistance
- Capacity building of existing agencies

Prosecution
- Proactive deterrence
- National food fortification alliance working group

Table 8: CRTU Implementing Partners Services (2013)

<table>
<thead>
<tr>
<th>Type of Services provided:</th>
<th>Kampala Based</th>
<th>Karamoja Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwelling Places</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>UWESO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C&amp;D</td>
<td></td>
<td>Arelimok</td>
</tr>
<tr>
<td>ARELIMOK</td>
<td></td>
<td>Clide</td>
</tr>
<tr>
<td>Shelter (short time)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Medical</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Nutritional</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Education</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Psychosocial Counselling</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Legal Counselling</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Family Tracing</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Family &amp; Community</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Housing (Long Term)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resettlement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reintegration</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>
The service agreement with agencies contains **minimum standards** under each category of service provision. **Quality of service delivery** is supported through organised and ad hoc trainings for partner agencies as well as Government immigration and police officials.

**RESILIENCE-STRENGTHENING**

One of the purposes of coordinated case management, apart from the provision of direct assistance/service delivery to victims, is to assist with social resettlement into host communities or reintegration in their communities of origin. **Providing basic services** during stress times coupled with assistance during more long term reintegration that address underlying causes of outmigration strengthens individual resilience.

The role of the caseworker goes beyond ensuring access to services and aims to assist the client in designing and implementing a plan to identify and resolve problems or **self-coping strategies**. Clients entering the programme are assigned a Primary Caseworker who is the focal point for the initial screening and case management process in Kampala and other major towns. The Primary Caseworker in Kampala coordinates with Karamoja-based caseworkers in conducting family tracing and community investigation to assess risks associated with reintegration or resettlement. In areas of reintegration and resettlement, caseworkers ensure regular follow up consultations, **documenting and measuring** reintegration indicators like access to education, livelihood assistance, and health care. Objectives of this project are to promote **self-help coping skills** to better respond to future shocks and to address the root causes of vulnerability leading to outmigration often linked to the effect of cyclical shocks to households in Karamoja.

For sustained reintegration, the project supports diversified livelihoods, selected by the beneficiary, not only at individual household level but also for cluster groups of households in vulnerable communities; taking the wider **circle of influence** of vulnerability into account. Furthermore, the project provides **sustainable and complementary hard and soft inputs** which include linkages to service delivery to support such livelihoods. For example, a cluster group may receive goats along with housing for the goats and training and supported access to veterinary services.

*In regard to out-migration, the main distress coping mechanism is the departure of young people, in particular girls and young women, in large numbers to work for employers with whom there is no prior connection or relationship. This is the adaptation of a well-established system of exchange of labor in particular seasons or periods of hardship.*

*Excerpt from ‘Out-migration, Return, and Resettlement in Karamoja, Uganda: The case of Kobulin, Bokora County’, by Elizabeth Stites, Dyan Mazurana, and Darlington Akabwai (June 2007).*
KEY MESSAGES

- Maintaining partnerships with a range of service delivery providers in strategic locations allows for adaptable, comprehensive and needs-based service delivery.
- Providing the dual service locations in Karamoja and Kampala ensures an on-going, regular and undisrupted linked service which strengthens the likelihood of sustainable reintegration in Karamoja.
- Service delivery that builds resilience addresses a) prevention against the need of the service, b) immediate and on-going concerns treated by the service and c) underlying causes within the wider environment dealt with proactively by the service.
- Service provision needs to be fortified by service seeking behaviour actions through the development of self-help coping skills.
- Results-based indicators measure referral or direct provision linkages to other services.
- Holistic service support through coordinated case management takes individual, household and the wider circle of influence of vulnerability into account.
- Provision of assets to build resilience requires sustainable and complementary 'hard' and 'soft' inputs which include direct linkages to service delivery.
- Quality of service delivery is supported through trainings for partner agencies and Government officials as well as minimum standards set for service delivery.

CASE STUDY: BRIDGING THE GAP BETWEEN KNOWLEDGE AND ACTIVISM THROUGH COMMUNITY MOBILISATION

Sustainable basic social service delivery requires ownership of delivery assurance through accountable public and private service delivery and/or self-supply. The methodology used in this case study emphasizes a means for knowledge and awareness of individuals to translate into community mobilisation. Bridging the gap between knowledge provision and application of such knowledge can lead to local level ownership of delivery assurance.

Overview

SASA! is a community mobilisation approach to preventing violence against women and HIV, developed by Raising Voices. It seeks to change community norms that uphold an imbalance of power between men and women. The SASA! methodology is systematic and occurs in four stages: Start, Awareness, Support, and Action. The four stages of SASA! are designed to create change in four corresponding outcome areas of knowledge, attitudes, skills, and behaviours.

SASA! Approach Outlined:

Start: Start thinking about violence against women and HIV/AIDS as interconnected issues and foster power within yourself to address these issues.
Awareness: Raise awareness about how our communities accept men’s use of power over women, fueling the dual pandemics of violence against women and HIV/AIDS.
Support: Support the women, men and activists directly affected by or involved in these interconnected issues, by joining your power with others’.
Action: Take action. Use your power to prevent violence against women and HIV/AIDS.
SASA! was first implemented by the Centre for Domestic Violence Prevention (CEDOVIP), a Ugandan civil society organisation, with technical assistance and monitoring by Raising Voices in Kampala from May 2009 to December 2012. A cluster randomised controlled trial conducted by the London School of Hygiene and Tropical Medicine on the SASA! approach (baseline in 2008 and follow up in 2012) found impacts in

a. reduced women's acceptability of men's use of physical violence against their partner*

b. increased men's and women's acceptability that there are circumstances when a woman can refuse sex*

c. reduced experience of physical acts of violence from a male partner in the past year**

d. increased women's perceptions of appropriateness of responses to violence received, and

e. decreased reported sexual concurrency in the past year by men* (CEDOVIP et al, 2013).

The International Rescue Committee (IRC) in partnership with the Karamoja Women Umbrella Organisation and with some technical assistance from Raising Voices has used the SASA! approach in its Supporting Women's Engagement in Peace building Processes in Karamoja, Uganda project since October 2010 in the Moroto and Napak districts. Its objective for individual and community change is to increase individual and collective reflection and action in order to mitigate violence and discrimination in the household and community. Its structural objective is enhanced active participation of women and girls within peace committees.

The SASA! approach is currently being implemented in 13 sub-Saharan African countries by 35 organisations and has been adapted to diverse contexts such as within the IRC peace engagement programme in Karamoja, a refugee setting in Ethiopia and pastoralist communities in Kajiado in Kenya. In 2014, Trócaire, an international faith-based organisation plans to pilot a programme in Kampala to adapt the current SASA! methodology for faith-based communities and develop a practical user-friendly international version for use in faith-based Catholic and Christian communities across Africa.

The approach helps to foster a climate of non-tolerance for violence against women by increasing individuals' skills, willingness and sense of responsibility to prevent violence against women, and developing and improving formal and informal community-based support mechanisms and services. The phased-in approach mirrors the Stages of Change which could be adapted and applied to other social service sectors in order to incorporate a process of change.

The success of such an ownership approach has been attributed to 3 key factors: Process, Reach and Content. The ‘Process’ is led by community members with time taken to systematically phase in ideas over an average 3 year roll out partnership that Raising Voices has with implementing agencies. Quality SASA! implementation requires a sustained presence in the community by staff/NGO, staff to personally reflect on violence, power, relationships in their own lives and respect for and trust in community activists and members. ‘Reach’ involves creating critical mass across all levels of society with strategies for intense exposure. The approach engages people in their day-to-day environment, such as at water collection points, markets or bus stops, via trusted community leaders and fellow community members. ‘Content’ involves ‘language of power’ that is provocative, is personal and decreases defensiveness. Overall, the process equips participants not only with knowledge but also takes the time to transfer this knowledge into meaningful, positive change in their lives and communities.

As there is an ethical obligation to refer cases to health or protection services, the programme encourages health care workers, police and district officials to also work through the Stages of Change. Though the programme is not child specific, there have been findings in Botswana of real understanding with the community of the linkage between violence against women and violence against children in the home.

The approach promotes community-led activism rather than volunteerism so that a greater sense of trust and ownership can be generated through collaboration of community members, leaders and service providers. The process is informal, on a person-to-person basis, highly contextualised and works holistically with both women and men.

* statistically significant

** borderline statistical significance in per protocol analysis
consciousness is increased through **systematic unpacking of complex issues** through the Stages of Change, resulting in **ownership** of the findings rather than having been fed information.

**KEY MESSAGES**

- Sustainable basic social service delivery requires ownership of delivery assurance through accountable public and private service delivery and/or self-supply

- Bridging the gap between knowledge provision and application of such knowledge can lead to local level ownership of delivery assurance. For knowledge provision to be effectively transformed into practice at individual and community levels, the approach has identified key prerequisites including: ownership through being community-led and integrated around daily activities rather than special sittings, critical mass across ‘levels of society’ and sectors, systematically unpacked comprehensive understanding through intense messaging made relevant in multiple scenarios.

**CASE STUDY: ENABLING COMMUNITY ACTIVISM ON SERVICE PROVISION THROUGH COMMUNITY PARLIAMENTS**

**Overview**

Riamiriam, a local Civil Society Network operating in Karamoja with funding support from Trócaire, has piloted a model of ‘Community Parliaments’ which are local structures at the parish level that involve residents of that particular community. They contain five sector-committees including Health, Education, Infrastructure, WASH and Human Rights. These committees hold responsibility for monitoring specific sectors and reporting at Community Parliamentary meetings. There are currently 9 Community Parliaments in 4 districts of Karamoja. When issues of significance arise in a particular sector, the duty bearers responsible, such as Local Government and relevant central offices, are engaged to provide responses to the concerns of the community. On average, each parliament comprises 50 to 60 people (Riamiriam, 2013).

Community Parliaments address the perceived very low or non-existent engagement between duty bearers and right holders in Karamoja by giving a platform through social accountability meetings held at the sub-county level for right holders to engage directly with duty bearers and hold them to account. This has enabled service access of residents through a rights-based approach rather than them focusing on needs and perceiving leaders as ‘unreachable’ (Riamiriam, 2013).

Riamiriam has been conducting fora in which multiple parliaments are brought together to share experiences and learn from each other. Impacts in Nakapelimen include construction and furnishing of a new Health Centre with adequate drug supply at Health Centre III status, provision of a new road to improve linkage to Moroto Town, return of children to school through a ‘Back to School’ campaign and increased reporting to police of violence against women after (Trócaire, 2013).

Creating a parish level structure builds knowledge and awareness on roles and rights and mobilizes communities to proactively take action following self-identification of needs. It develops an entry point for participation in formal decision-making and governing processes and demands downward engagement and accountability from government structures. In doing so, the Community Parliament model strengthens residents’ voices at the community level and provides a structured way to engage the formal government system on pertinent, social service based issues.
KEY MESSAGES

- The Community Parliament model builds knowledge and awareness, strengthens residents’ voices, provides an entry point for participation in formal decision-making and governance, encourages participatory identification of needs and mobilizes action at the community level while demanding downward engagement and accountability from government structures.

Recommendations:

- The draft Social Protection Policy should be revised to reflect the National Disaster Preparedness and Management Policy and adaptation possibilities for drought and other emergency scenarios.

- A comparative analysis is recommended on an adaptable approach to grants/cash transfers, based on increased quantity or frequency of payments during stress times to prevent negative coping mechanisms versus consistent and fixed amounts in grants/cash transfer in order to encourage household level preparedness actions through use of or enhanced linkages with savings and investments structures.

- Social service facilities should strengthen linkages with and promote uptake of protection services, such as the Uganda Police Force’s Child and Family Unit.

- Further study should be conducted on culturally-specific lessons learned on addressing gender power imbalances within a dual traditional and statutory recognised process.

- As private sector partnerships increase, donors and partners should implement gender and culturally sensitive procedures.
Overview
In the education sector, quality initiatives and curricula reforms are achieving results. Children are on average completing primary school earlier and staying in school for longer, while basic learning outcomes such as literacy are steadily improving. Slow progress has been made toward MDG Goal 2 with children completing a full course of primary schooling while on track to eliminate gender disparity in primary and secondary education and in all levels of education (MFPED, 2013).

Nationally, the primary completion rate increased by 3% from 64% in 2011 to 67% in 2012 (MoES, 2012). The ratio of girls to boys is 1.0 in primary education is 1.0 and 1.1 in secondary education but only 0.7 in tertiary education. For women, rural and urban literacy rates are 58.8 and 86% while for men, rural and urban literacy rates are 74.1 and 91.1% respectively (UBOS, 2012).

In 2011, at 58.1% of females and 45.3% of males, Karamoja had more than double the percentage of other regions of those six years of age and older who have not accessed formal education (UBOS, 2012). Primary school enrollment in Karamoja increased from 110,739 children in 2000 to 137,362 children in 2012; however in 2013 the sector registered a reduction in P1 entry level enrollment which was attributed to acute food shortages and reduced food rations at schools (MoES, 2013).

The Government provides hardship allowances to all teachers in hard to reach and hard to stay areas to address ‘lack of commitment of teachers of Government schools’. The 2013 Sector Performance Report remarked that the Ministry of Public Service should consider urban areas in Karamoja to fall under hard to reach and hard to stay categories (MoES, 2013).

Finance
The FY2012/13 budget allocation to the Education and Sports Sector stood at 14.61% of the total national budget, a 2.17% increase from 12.44% in FY 2011/12. Half of this budget was allocated to the primary sub-sector (MoES, 2013).

Policy review
The 1995 Constitution posits education as a right while the Children’s Act provides that all children must be educated, tasks the State to provide resources and obliges parents to make sure that children attend school.

The Equitable Access Policy for both rural and urban Uganda provides for equitable access to quality and affordable education to all Ugandans in an attempt to achieve the MDGs by 2015. This policy led to the affirmative action policy supporting more equitable enrollment by reducing university entry thresholds for women, disabled and challenged persons including students from Karamoja as a specific hardship area.

The Policy of Decentralisation of education service provision under the Local Government Act of 1997 required District Councils to assume responsibility for administration and management of nurseries, special schools and technical schools. A Non-formal Education Policy (2011) is still in draft.

The Education Sector Strategy Plan (2007-15) commits the Government to assuring universal access to primary education as the highest priority. Universal Primary Education was launched in 1997 and was subsequently stipulated in the GoU White Paper
(1992) and the development of the Children’s Statute 1996. The Education For All Policy was an attempt to ensure that everyone benefits from the advantages of education. This has been impaired by a lack of infrastructure, a lack of performance monitoring and the Lord’s Resistance Army insurgency. The Community and Adult Education Policy focuses on education through classes that teach literacy in communities and also through professional courses in universities to train and equip adult educators.

The Universal Post Primary Education and Training programme was launched in February 2007 to address challenges of transition to post primary education, making Uganda the first country in Africa to provide free education at this level. The Government is also exploring options for revitalization and/ or strengthening Technical, Vocational Education and Training to provide demand driven skills under ‘Skilling Uganda’.

Though disaster risk management is not explicit in the above policies, the Disaster Preparedness and Management (DPM) Policy (2010) contains objectives to minimise risks and impact of hazards and disasters on school-going children, to improve safety of school buildings and to introduce disaster risk education into schools’ curricula at all levels. The DPM Policy lists the MoEs as a ‘responsible institution’ for famine/food security, heavy storms, earthquakes, transport related accidents, fires, internal armed conflicts and internal displacement of persons, mines and unexploded ordinances, industrial and technological hazards and cattle rustling.

The DPM Policy stipulates that public awareness and education on the likelihood of disasters and appropriate ways in which to respond to them are required for individuals in communities to participate in disaster planning and management. The OPM has accordingly created a Disaster Risk Management/Climate Change Adaptation Communication Plan and Media Engagement Strategy (2014-2017).

The National Conference on Disaster Risk Management in October 2013 noted that ‘disasters compound the vulnerability of Persons with Disabilities (PWDs) because of their inability to engage in coping strategies yet they have largely been left out in interventions in environmental education. Current formal and informal education programmes on DRR do not take into account the needs of PWDs’ (OPM, 2013).

**Sector approach**

The education sector institutional framework consists of the Ministry of Education which comprises 11 Departments under four Directorates of Basic and Secondary Education; Higher, Technical, Vocational Education and Training; Education Standards; and Industrial Training.

The Guide to Disaster Risk Management (DRM) in Educational Institutions in Uganda highlights that the education sector needs to follow through on the National Disaster Preparedness and Management Policy to: a) embed DRM into the formal education curricula, b) ensure that buildings of educational institutions do not pose a risk to occupants, c) train human resources on aspects of DRM, d) prepare and implement emergency preparedness plans including mock drills and prepositioning of emergency supplies in educational institutions and e) create disaster awareness among students, educators and communities (MoES, 2012). At the 4th Global Platform for Disaster Risk Reduction, Uganda was one of 35 governments that issued a call to develop nationally agreed standards for hazard risk assessments especially of critical infrastructure, including schools, by 2015.

Although education programmes in Karamoja were outside the scope of this Review due to time restrictions and subsequent limitations on sectors for focus based on alignment with definitions of this Review, potentially relevant interventions identified there include:

- UNICEF’s continued support to the Directorate of Education Standards to revise the Disaster Risk Reduction guidelines for Education Institutions
- The Uganda Red Cross’s DRR camps for selected pupils and teachers.
- WFP strategies for children in Karamoja to attend school in the sub-region through provision of midday meals, provision of take home food ration to girls in P4-P7 and supply of vegetable seeds, fruit trees and wood-lot seedlings to schools (MoES, 2013)
• Save the Children Alternative Basic Education in Karamoja (ABEK)\textsuperscript{4} with a 'good practice' example of a sustainable transition strategy through its use of alternative and contextualised education made specific for children living in pastoralist communities, linkages to formal education and a handover process to Government

**Recommendations:**

• Political prioritisation, budget allocation and technical support should enable creation and implementation of a national roll-out plan for nationally agreed standards for hazard risk assessment of critical infrastructure such as schools by 2015

• DRR should be allocated greater prioritisation in future policies and policy revisions that enable the Ministry of Education and Sport to serve its role as a 'responsible institution' for multiple disaster-related categories in the DPM Policy,

• DRR should continue to be prioritised in teacher and student curriculum development with supplementary materials related to each region based on its hazard profile

• Literacy and numeracy skills to benefit all sectors of service delivery require increased prioritisation and resources. Adult education services should explore possible linkages to existing community level social service delivery structures such as Village Health Teams or Water User Associations.

\textsuperscript{4}ABEK was reported to currently be under review by the REGLAP Consortium and the Alternative Basic Education programme is also covered in other country reports within the Regional Review to which this paper will contribute.
REFERENCES


CEDOVIP et al (2013). SASA! Study Results: understanding the impact of preventing violence against women and HIV, Uganda: Centre for Domestic Violence Prevention, London School of Hygiene and Tropical Medicine, Makerere University, Raising Voices.


Feinstein International Center (2012). Livelihoods, basic services and social protection in Northern Uganda and Karamoja, Tufts University.


IOD PARC (2012). Formative evaluation of World Food Programme’s Livelihoods Programme, Karamoja, United Kingdom: International Organisation Development Ltd.


Ojuola et al (2005). Abstract: The Care Group Model: Empowering Communities to Improve and Sustain Child Health, Mozambique:

Ojuola, O; Edward, AR; Ernst, P, and Long, M.


Shepherd et al (2013). The geography of poverty, disasters and climate extremes in 2030, Met Office, Government of the United Kingdom, Overseas Development Institute; Risk Management Solutions: Shepherd, Andrew; Mitchell, Tom; Lewis, Kirsty; Lenhardt, Amanda; Jones, Lindsey; Scott, Lucy; Muir-Wood, Robert.


UKAID (2011). Cash Transfers Literature Review Policy Division, April, United Kingdom, available: http://r4d.dfid.gov.uk/PDF/Articles/cash-transfers-literature-review.pdf (viewed 27.11.13)


## Annex: Organisations Interviewed in support of the Uganda Review

Marie Shanahan, External Consultant

<table>
<thead>
<tr>
<th>Location</th>
<th>Dates</th>
<th>Organisation</th>
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<td>July 9th, 2013</td>
<td>REGLAP/DCA</td>
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<tr>
<td>Nairobi</td>
<td>July 16th – 18th, 2013</td>
<td>UNICEF ESARO, ECHO</td>
<td>REGLAP</td>
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<td>Moroto</td>
<td>July 29th – August 2nd, 2013</td>
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<td>Save the Children, DDG, FAO, IIRR, IOM, IRC, District Water Office, ACDI/VOCA, KALIP, Caritas</td>
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<td>Kampala</td>
<td>August 5th – 6th, 2013</td>
<td>Save the Children, Oxfam</td>
<td>ACF, IOM (telephone)</td>
</tr>
</tbody>
</table>

UNICEF Uganda sector focal: education, water, health, nutrition and child protection  
UNICEF Uganda section guidance: Field Operations
Richard Kajura, National Consultant

| Moroto          | October 14th-21st, 2013 | VSF Belgium C&D  
|                 |                         | Ag. DHO & Nutritionist (Moroto)  
|                 |                         | ACF/IUCN Ag.DHO/Nutrition focal (Napak)  
|                 |                         | ACTED  
|                 |                         | IIRR Riamiriam Concern UNICEF Water Directorate  
|                 |                         | UNICEF Uganda sector focal: nutrition and health |