



Ex Post Evaluation: Katakwi DRR Project



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Acronyms

ARC - American Red Cross

CBDRR - Community Based Disaster Risk Reduction

DRR - Disaster Risk Reduction

FGD - Focus Group Discussion

HFA - Hyogo Framework for Action

HH - Household

KII - Key Informant Interview

LC - Local Council

LWF - Lutheran World Federation

NGO - Non-Governmental Organization

PSP - Parish Support Person

SACCO - Savings and Credit Cooperative

SOCADIDO - Soroti Catholic Diocese Integrated Development Organization

TEDDO - Teso Dioceses Planning and Development Office

URCS - Uganda Red Cross Society

Executive Summary

Background

From 2010 - 2011 the Uganda Red Cross Society (URCS), with support from the American Red Cross (ARC), implemented a disaster risk reduction project (DRR) in the Teso sub-region of Eastern Uganda. Known informally as the “Katakwi DRR Project”, this project was implemented in six parishes across two sub-counties. The goal of this project was to help communities identify disaster risks and take steps that would help them prepare for, respond to, and mitigate disasters. There were two main objectives in this project. First, community based disaster risk reduction (CBDRR) would be used to help communities identify and prepare for disasters. Second, the disaster management capacity of the URCS and local communities would be strengthened. The major components of the project included the establishment of CBDRR groups and the implementation of micro-projects like energy saving ‘Lorena’ cook stoves. Underpinning these goals and objectives was the Hyogo Framework for Action (HFA), which identifies five key priority areas for DRR efforts. This impact evaluation used a mixed methods approach to collect data using a household survey, focus group discussions, and key informant interviews. Data was then analyzed in the context of the HFA priority areas and the URCS National DRR Strategy. A brief summary of key findings from the evaluation are included below.

Objective

The main driving questions for this impact evaluation were:

- Did the project produce the intended impacts in the medium and long term?
- What types of behavior change or unintended impacts (positive and negative) did the project produce?
- What helped or hindered the project in achieving these impacts?
- How sustainable were the micro-projects and the activities of the CBDRR groups?
- What lessons, best practices, and recommendations can be derived from the project and applied elsewhere?

Methodology

Both quantitative and qualitative data were collected for this impact evaluation. Quantitative data was collected via household surveys while qualitative data was collected via focus group discussions and key informant interviews. For the household surveys, the evaluation used a random sample of individuals drawn from across the 6 parishes; sample size was determined based on a 95% significance threshold for the number of households in each parish. Participants for focus groups were also randomly selected while key informants were identified through the use of project documents and discussions with URCS/ARC staff.

Main Conclusions

- Almost all indicators from the baseline evaluation showed improvement in the impact evaluation.

- In 2010, only 0.9% of respondents stated that their source of disaster warning information was from the Red Cross; in 2013, 37% said that the URCS was their source of information.
 - A large majority of people believe that their families (71.9%) and their communities (72.1%) are prepared for a disaster.
 - The most continued micro-projects since the end of the Katakwi DRR Project were tree-planting (34.6% of those surveyed) and the Lorena cook stoves (24.6% of those surveyed).
 - Almost all respondents, 98.7%, believe that they have a role to play in preserving environmental resources for their community.
- All of the CBDRR groups became inactive after the close of the project, although individual members have continued a few initiatives on their own.¹
 - CBDRR group members viewed themselves as an extension of the URCS, rather than as a grassroots organization.
 - The distribution of project benefits was uneven and focus groups reported that those close to the CBDRR members tended to benefit more than others.
 - Program staffing for the Katakwi DRR Project strongly influenced the efficacy of its implementation and limited long-term behavior change within the project area.
 - Overall, more than 70% of respondents report that URCS/ARC activities have had a positive impact on their lives.

Recommendations

- The Katakwi DRR project strove to train CBDRR group members in DRR principles and activities. These group members were then intended to train other individuals in the community. This approach saw mixed success and may be strengthened if combined with a training/outreach program geared towards women, youth, and the less mobile. This type of training would complement the physical micro-projects and decrease the burden of information transmission on the CBDRR members.
- To establish community driven efforts, it would be beneficial for the organization to employ community organizing strategies. Emphasis on soft skills like communication, stakeholder engagement, volunteer recruitment, and fundraising would complement efforts to raise technical capacity. The organization could also benefit from an internal discussion on the desired lifespan for a community group--in some cases a group may only be needed for the length of the project.

¹ Discussions with American Red Cross staff in Uganda revealed that CBDRR members in Wera parish formed a community savings group. Interested participants must undertake a DRR activity as a requirement of membership. The savings group was not mentioned during the evaluation by any community members which is why it does not appear in the report.

- There must be a more extensive and thorough training for program staff before a project. This increases technical capacity and also establishes a baseline for performance from staff members. Additionally, regular trainings throughout the course of the project in client management, outreach, communication, finance, and technical skills would also update skills and ensure ongoing improvements in institutional capacity.
- The issue of sustainability must become central to future projects, especially when employing a CBDRR approach. The organization would benefit from a clear determination of its goals for a CBDRR group. In some cases, it may be sufficient for the CBDRR group to disband after the end of the project. In cases where the CBDRR group is intended to continue its work, the organization would benefit from guiding groups to procure alternate assistance so that activities can go on after the project ends. Additionally, investment in CBDRR group members in the form of adult education, entrepreneurship, or communication training would increase the capacity of the groups to remain organized.
- Several best practices from the Katakwi Project could carry over to other programs. One example is the implementation of complementary DRR initiatives like Lorena cook stoves and tree planting. In the Katakwi DRR project, these activities were the runaway successes of all micro-projects. Additionally, the Katakwi project was also strong in identifying champions for DRR, particularly in Wera parish. This type of partnership with local volunteers and community members, who already have strong social capital with their peers, can help the organization more rapidly gain the trust and buy-in of local communities.

Introduction

Project Background

From 2010 - 2011 the Uganda Red Cross Society (URCS), with support from the American Red Cross (ARC), implemented a disaster risk reduction project (DRR) in the Teso sub-region of Eastern Uganda. Officially entitled 'Building resilient communities for disaster risk reduction and climate change adaptation in the Teso sub-region of Uganda', this project was implemented in six parishes (Wera, Amolo, Sugur, Kapujan, Orimai, and Kokorio) across Katakwi and Amuria districts. For ease of reference, this project will hereafter be referred to as the Katakwi DRR Project.

The impetus for the Katakwi DRR Project came after unprecedented flooding in 2007 that followed weeks of above average rainfall. The floods affected approximately 60,000 households (close to 400,000 people). In the most affected areas, two-thirds of communities lost at least 90% of their crops due to the flooding (Chevigny 2007). Crop losses contributed to widespread food insecurity. Additionally, flood waters destroyed homes and displaced thousands of people, disrupted water and sanitation systems, and closed educational institutions. This type of flood event is not anomalous to the region; Eastern Uganda has several districts considered to be disaster prone. At the time, community coping strategies were considered to be inadequate and it was decided that further technical assistance was needed in order to raise the capacity of local communities to withstand and recover from disasters.

In addition to addressing vulnerability to disasters, the Katakwi DRR Project was implemented to increase resilience to climate change. Worldwide, global average temperatures have increased 0.74°C in the past century. The Intergovernmental Panel on Climate Change (IPCC) has concluded that human activity is driving the increase in temperature. There is a strong global consensus that climate variability is increasing because of carbon dioxide emissions that are the by-product of activities like burning fossil fuels for energy generation (IPCC 2007). Increased variability in temperature and rainfall is expected to have a number of adverse impacts on natural and human systems. Climate change is also expected to exacerbate natural climate fluctuations. Drought prone areas will see longer and more pronounced droughts and flood prone areas will experience heavier rainfall and more intense flooding (IPCC 2007).

Approximately 80% of Uganda's residents rely directly on natural resources to sustain their livelihoods and in the Teso sub-region, a majority of the population depends on subsistence agriculture for its income. In this context, the URCS and ARC developed the Katakwi DRR Project to help communities identify risks and take actions that would help them prepare for, respond to, and mitigate potential disasters. Over the 18 month funding period, the URCS and ARC hoped to reach 4,000 households (approximately 24,000 people) with the Katakwi DRR project.

PROJECT GOAL

To help communities in the Teso sub-region of Uganda identify risks and take action that would help them prepare for, respond to, and mitigate potential disasters.

Project Design

Project design for the Katakwi DRR project was based on a program carried out by the ARC in the Caribbean region which utilized a community based disaster risk reduction (CBDRR) approach. The project also incorporated aspects of the URCS' DRR Framework as well as priorities identified in the 2005 World Conference on Disaster Reduction, now known as the Hyogo Framework for Action (HFA).

Communities were selected through a district stakeholders' project planning meeting. This included participation of URCS staff and volunteers, district government officials, non-governmental organizations, and social and development authorities. An initial baseline survey was conducted before the implementation of the project to collect more accurate data on demographics, resource usage, existing knowledge about disasters, and community practices at the parish level. This information established a baseline for the six parishes.

The project had two main objectives and a series of targeted goals. The logical framework for the project, as outlined in project documents, appears below (Table 1 and Table 2).

Logical Framework

Table 1: Logical Framework, Objective 1

Objective 1: Community-based Disaster Risk Reduction (CBDRR) will build skills of communities to identify risk, and to take action to prepare for, respond to, and to mitigate potential disasters in the Teso sub-region of Uganda.				
Outcomes	Process Indicators	Data Source/ Verification	Frequency of Data Collection	Major Planned Activities
Communities are better prepared to respond to disasters through formation of established CBDRR groups, improved training/education on disaster related issues, and the establishment of early warning systems.	<ul style="list-style-type: none"> ▪ 6 vulnerability and capacity assessments completed ▪ 6 community based disaster risk reduction groups formed ▪ 6 effective community action plans developed ▪ 120 community members trained ▪ 6 early warning systems set up and functioning 	<ul style="list-style-type: none"> ▪ Baseline and final surveys ▪ Volunteer reports 	<ul style="list-style-type: none"> ▪ Pre-implementation and at end of program ▪ Monthly (volunteer reports) 	<ul style="list-style-type: none"> ▪ Community awareness raising meetings ▪ Selection and training of community based DRR groups (CBDRR) ▪ Community disaster plans ▪ Setting up of early warning systems
Micro-mitigation projects meet minimum locally appropriate standards specific to identified community needs	<ul style="list-style-type: none"> ▪ 12 micro-mitigation projects identified ▪ 12 micro-mitigation projects implemented ▪ 75% of community members satisfied with micro-mitigation projects 	<ul style="list-style-type: none"> ▪ Quarterly reports ▪ Final evaluation 	<ul style="list-style-type: none"> ▪ Quarterly ▪ At completion of project 	<ul style="list-style-type: none"> ▪ Identification and implementation of micro-mitigation projects

Table 2: Logical Framework, Objective 2

Objective 2: Strengthen the disaster management capacity of the Uganda Red Cross at local branch level to efficiently and effectively respond to disasters and implement community-based disaster risk reduction interventions.				
Outcomes	Process Indicators	Data Source/ Verification	Frequency of Data Collection	Major Planned Activities
<i>National society has implemented activities to identify risk, and prepare for, respond to, and mitigate potential disasters.</i>	<ul style="list-style-type: none"> ▪ 6 vulnerability and capacity assessments undertaken ▪ 12 micro-mitigation projects implemented with communities ▪ 3 contingency plans developed and tested ▪ 6 early warning systems developed 	<ul style="list-style-type: none"> ▪ Quarterly reports ▪ Final evaluation 	<ul style="list-style-type: none"> ▪ Quarterly ▪ At project end 	<ul style="list-style-type: none"> ▪ Vulnerability and capacity assessments ▪ Identification and implementation of micro-mitigation projects ▪ Branch level contingency plans developed ▪ Early warning systems set up
<i>National society has strengthened volunteer capacity in disaster risk reduction methodologies and practices.</i>	<ul style="list-style-type: none"> ▪ 120 of volunteers recruited ▪ 90% of volunteers participating in the program after one year ▪ 120 volunteers trained ▪ 20 volunteers with increased understanding of climate change issues 	<ul style="list-style-type: none"> ▪ Quarterly reports ▪ Final evaluation 	<ul style="list-style-type: none"> ▪ Quarterly ▪ At project end 	<ul style="list-style-type: none"> ▪ Volunteer management training

In order to reach these two project objectives, the URCS and the ARC facilitated trainings and meetings with community members, helped each parish establish CBDRR groups through a democratic process, and helped these CBDRR groups to conduct vulnerability and capacity assessments in order to select micro-projects that address priority hazards. Additionally, this project was also sought to increase the capacity of the URCS to conduct future DRR activities in other areas of the country. To this end organization staff and volunteers were also supposed to receive training over the course of the project that would help them improve DRR implementation and community mobilization. According to discussions with ARC staff, most of the training efforts were focused on volunteers. The organization could benefit from a more balanced approach which keeps volunteer trainings at current levels and improves training for staff. Additionally, proactive trainings for program/field staff in volunteer management, and CMDRR help reduce friction between staff and volunteers and are now standard in ARC DRR projects.

Justification and Context for Impact Evaluation

As mentioned previously, the Katakwi DRR Project was implemented from 2010 - 2011 over a period of 18 months. Before implementation began, the URCS and the ARC conducted an initial assessment to collect data and to establish a baseline against which to track progress. The baseline assessment was carried out by the organization and had four main objectives:

- 1) To assess the levels of awareness and types of different disasters impacting the community.
- 2) To assess the existing household level of disaster preparedness.
- 3) To determine the existing level of community or local government disaster preparedness.
- 4) To identify the different types of communication used before, during, and after disasters.

As prescribed in the logical framework an end-of-project evaluation was conducted at the close of the project. The endline evaluation was administered by an independently contracted firm. The endline assessment used the same survey instruments, but different process, as the baseline evaluation in order to establish a watermark for the project's close. The goal of the endline evaluation was to log the progress made by the project and determine which program targets had been met.

Both baseline and endline evaluations were intended to investigate short-term states/outcomes. Taken together, they attempted to compare intended outcomes with actual outcomes. For example, the intended number of beneficiaries vs. the actual number of beneficiaries or the planned number of boreholes to drill vs. the actual number of boreholes drilled. To this end, they placed a great emphasis on the evaluation of the process of project implementation.

In contrast, impact evaluations are broader in scope and seek to answer a greater variety of questions regarding a project intervention. For the purpose of this report, the definition of 'impacts' will be the one used by the OECD (Organization for Economic Cooperation and Development) and InterAction (a global network of development and disaster response NGOs). In this case, impacts are defined as "the positive and negative, intended and unintended, direct and indirect, primary and secondary effects produced by an intervention" (Rogers 2012). Impact evaluations investigate the changes brought about by an intervention (Rogers 2012). This type of evaluation attempts to discern which impacts can be explicitly attributed to a specific intervention.

The URCS and the ARC sought a deeper understanding of the Katakwi DRR Project's accomplishments by undertaking an impact evaluation of the program. Building upon the previous baseline and endline assessments, this Ex Post Evaluation report addresses key questions about long term behavior change, knowledge transmission, and sustainability of project goals in the implementation area of the Katakwi DRR Project. A list of key questions for impact evaluation can be found in Figure 1. The data collected by this impact evaluation were evaluated in light of global and national DRR frameworks for both the URCS and the ARC.

Key Questions for Impact Evaluation	
Overall impact	<ul style="list-style-type: none"> ▪ <i>Did it work? Did [the intervention] produce [the intended impacts] in the short, medium and long term?</i> ▪ <i>For whom, in what ways and in what circumstances did [the intervention] work?</i> ▪ <i>What unintended impacts (positive and negative) did [the intervention] produce?</i>
Nature of impacts and their distribution	<ul style="list-style-type: none"> ▪ <i>Are impacts likely to be sustainable?</i> ▪ <i>Did these impacts reach all intended beneficiaries?</i>
Influence of other factors on the impacts	<ul style="list-style-type: none"> ▪ <i>How did [the intervention] work in conjunction with other interventions, programs or services to achieve outcomes?</i> ▪ <i>What helped or hindered [the intervention] to achieve these impacts?</i>
How it works	<ul style="list-style-type: none"> ▪ <i>How did [the intervention] contribute to [intended impacts]?</i> ▪ <i>What were the particular features of [the intervention] that made a difference?</i> ▪ <i>What variations were there in implementation?</i> ▪ <i>What has been the quality of implementation in different sites?</i> ▪ <i>To what extent are differences in impact explained by variations in implementation?</i>
Match of intended impacts to needs	<ul style="list-style-type: none"> ▪ <i>To what extent did the impacts match the needs of the intended beneficiaries?</i>

Figure 1: InterAction, Guiding Questions for Impact Evaluation (Rogers 2012).

Methodology

A team of Red Cross country staff, volunteers, and independent contractors were retained to conduct the impact evaluation. URCS and ARC leadership first identified key questions they sought to answer through the impact evaluation. Primary concerns included:

- Did the project produce the intended impacts in the medium and long term?
- What types of behavior change or unintended impacts (positive and negative) did the project produce?
- What helped or hindered the project in achieving these impacts?
- How sustainable were the micro-projects and the activities of the CBDRR group?
- What lessons, best practices, and recommendations can be derived from the project and applied elsewhere?

Mixed Methods Approach

This assessment employed a mixed method evaluation design and used both quantitative and qualitative data to address the aforementioned questions. The mixed methods approach was chosen to avoid the shortfalls of exclusively quantitative or qualitative methods. Quantitative-only evaluations run the risk of being too decontextualized and do not adequately take political, social, and cultural factors into account (Bamberger 2012). On the other hand, qualitative-only evaluations can become too anecdotal and situation-specific, preventing the extraction of transferable lessons. In contrast, the mixed methods approach offers several major advantages. Five key benefits are summarized below (Greene 2007).

- ❖ **Triangulation of evaluation findings:** the mixed methods approach enhances the validity and credibility of evaluation findings by comparing data obtained from difference methods of information collection. For example, survey responses can be compared to observations that the interviewer can make directly. When information from different sources converges and agrees this increases the validity and credibility of findings or interpretation. When different estimates are not consistent, the evaluator can explore further to understand the reason for the inconsistencies.
- ❖ **Development:** using results of one method to help develop the sample or instrumentation for another. This type of iterative approach to developing data collection tools can help improve specific ongoing evaluations and also improve organizational capacity for monitoring and evaluation.
- ❖ **Complementarity:** extending the comprehensiveness of evaluation findings through results from different methods that broaden and deepen the understanding reached. Results from one form of data collection can be bolstered by another type of complementary data collection.
- ❖ **Initiation:** generating new insights into evaluation findings through results from the different methods that diverge and thus call for reconciliation through further analysis, reframing or a shift in perspective.

- ❖ **Value diversity:** incorporating a wider diversity of values through the use of different methods that themselves advance difference values. This encourages greater consciousness about the value dimensions of the evaluation.

Data Collection Tools

Following a mixed methods approach, both quantitative and qualitative data were collected for the impact evaluation. Quantitative data were collected through household surveys. Qualitative data were conducted through structure key informant interviews (KIIs) and structured focus group discussions (FGDs). In order to maintain consistency with previous evaluations, the household survey tool, KII questions, and FGD questions were adapted from the survey instruments used in the baseline evaluation. The tools were updated for clarity, specificity, and edited to include indicators for sustainability and behavior change. All of the survey instruments can be found in Annex 2.

Quantitative Data Collection

As previously mentioned, the household survey for the impact evaluation was derived from the survey used in the baseline assessment. This was done in order to allow for temporal comparison between the baseline and impact evaluation. Since the project was developed with Hyogo Framework for Action (HFA) priority areas in mind, the tool was also restructured so that it correlated to the five priority areas in the HFA. A sixth set of questions was added to the household survey in order to address the issue of sustainability which was not explored in earlier assessments.

The survey tool was developed by the ARC-Uganda's monitoring and evaluation department and an independent contractor. Next, it was translated into the local language of Ateso. The translated tool was back-translated to English and cross-checked with the original document to ensure the accuracy and consistency of the questions. With the help of the URCS, local enumerators (volunteers) were recruited to assist with administering surveys. Enumerators were briefed on the history of the project and trained in how to administer the surveys over a course of 3 days. To decrease the burden on enumerators and staff, smartphones with mobile survey software were used to collect community responses. Enumerators also received training on how to properly collect and log survey data using these mobile units. Finally, the survey tool was pretested during the training period. Because of time constraints, the enumerators also acted as the pre-testers. They were not familiar with the tool before the pretest in order to minimize bias during the pre-test.

Sampling for Household Surveys

Although original records of the sampling methodology were lost, a reconstruction of the process was done through discussions with ARC staff. Based on this reconstruction, the baseline assessment used an epidemiologic statistics site to calculate sample sizes for each parish.² The evaluation calculated "sample size for proportion or descriptive study" using the number of households in each parish as the population. Anticipated frequency (p) was set at 50%, confidence limits were 10, and design effect was set to 1. Per parish sample sizes can be seen in Table 3. Due to a logistical shortfall, the baseline needed to resample a village in Sugur Parish and ultimately arrived at a final sample size of 581 for the evaluation.

² OpenEpi: <http://www.openepi.com/OE2.3/Menu/OpenEpiMenu.htm>

Table 3: Baseline Evaluation Sample Sizes

Parish	Number of Households
Kapujan	88
Kokorio	86
Orimai	88
Wera	87
Sugur	145
Amolo	87
Total	581

The impact evaluation used a different equation to determine sample size; this formula is primarily applicable to populations of 10,000 or greater. However, this was originally chosen in order to maintain consistency with the methodology printed in the final draft of the baseline evaluation. It was only after further discussion that the actual baseline sampling methodology was determined. This resulted in a larger total sample than the baseline; however a review of the literature confirmed that surveying a *larger* sample than statistically required does not diminish the validity of the results (Wild and Seber 2000).

The equation used to determine sample size for the impact evaluation was:

$$n \geq \frac{z^2 \cdot (p) \cdot (1 - p)}{D^2}$$

n = the sample size

z = 1.96, the z-score corresponding to the level of confidence with which it is desired to be sure that the true population lies within

p = 0.50, expected population proportion, the default of 50% or 0.50 was used because a more accurate number was unknown

D = 0.10, maximum tolerable error

Completing the equation used in the impact evaluation:

$$n \geq \frac{z^2 \cdot (p) \cdot (1 - p)}{D^2}$$

$$n \geq \frac{1.96^2 \cdot (0.50) \cdot (1 - 0.50)}{0.10^2}$$

$$n \geq 96.04$$

Based on this sample size, the minimum sample for each parish was determined to be 97 households. When conducting surveys, it is standard practice to also collect data from a replacement sample. This is done in order to account for non-responses or unusable data in the original sample. For logistical reasons, a 10% replacement sample was integrated into the original sample size. In other words, a sample size of 110 households was used in each parish to include a 10% replacement buffer. After cleaning the data set, 595 total responses were analyzed.

Once the sample size was determined, household lists were obtained from each parish. Households were numbered sequentially and a random number generator was used to randomly select households for surveying. Enumerators were deployed to survey these randomly selected

households. These volunteers were instructed to only interview a household member if they were 16 and older. Information was then directly entered into Fulcrum mobile data collection software by the surveyors. The completed data file was later exported to Excel for cleaning and SPSS for analysis and tabulation. For ease of viewing, the cross-tabulated data is presented in the main body of the report while confidence interval information can be found in Annex 1.

Qualitative Data Collection

Focus Group Discussions

During the development of evaluation tools, it was determined that structured focus group discussions (FGDs) would be used to collect qualitative data from men, women, CBDRR group members, and community members that benefited from Lorena cook stoves. Men-only, women-only, CBDRR member focus groups were conducted in all six parishes. Due to time constraints, one focus group for Lorena cook stoves was conducted in each sub-county. To have a more complete understanding of the impacts of the cook stoves in the project area, future evaluations would benefit from conducting a discussion in each parish. For the men's and women's focus groups, individuals were selected using a parish-wide household list. A random number generator was used to randomly select households for participation in the group. A local contact in each parish was given the randomly selected households and asked to mobilize the members for the discussion. A similar procedure was followed for the Lorena cook stove discussions. The focus group discussions were conducted with the help of translators fluent in Ateso and English. Discussions were conducted in teams of three, with an independent contractor leading the discussion and taking notes, a translator conveying information, and a second translator acting as an observer and also note-taking.

Key Informant Interviews

Individuals for key informant interviews (KIIs) were identified using project documents and through discussions with URCS staff, ARC staff, and local leaders. KIIs were conducted based on availability of the informants, with particular effort made to include local government leaders, program staff, and community thought leaders. For community members and local leaders, a translator was used to ensure clarity.

Limitations

Despite best efforts to collect thorough and representative data, inevitably, logistical considerations and time constraints limit the scope of any evaluation. In this case, findings from the impact evaluation must be considered in light of several caveats. First, because the project closed in 2011, challenges arose in contacting and arranging interviews with some of the community leaders involved in the implementation. Additionally, while the impact evaluation used the baseline as a touchstone for data collection and analysis, during the course of the evaluation it became apparent that the endline assessment suffered from lapses in quality control. Much of the methodology and many of the conclusions from the endline were found to be unreliable. Consequently, the analysis presented here does not include findings or comparisons to the endline.

Finally, impact evaluations are a relatively new phenomenon in the field of international development. For the most robust results, it is vital to integrate planning for impact evaluation into initial project design so that appropriate counterfactuals can be developed and relevant indicators

can be tracked (Rogers 2012). The Katakwi DRR Project is one of the first occasions that the URCS and ARC-Uganda have sought to conduct this type of evaluation. For this reason, the impact evaluation conducted for the Katakwi DRR Project does not seek to address a specific counterfactual and does not claim precise attribution of impacts to the project with 100% certainty. Instead, our analysis seeks to identify behavioral trends, changes in knowledge, and sustainability of project activities in the implementation communities.

Findings and Analysis - Household Survey

National DRR Strategy for the URCS

The Uganda Red Cross Society is the largest humanitarian organization in the country. It has a long history of assisting communities during disasters through its response operations. However, as demand for assistance has risen and understanding that responding time and again to the same types of disasters is not cost effective or sustainable, the URCS decided in the 2008 to create and implement a national strategy for disaster risk reduction. The URCS joined like-minded national Red Cross societies and the international movement by joining the Global Alliance for Disaster Risk Reduction.

Although the URCS first implemented a community based disaster management project from 2005-2007, 2008 marked the first time national strategies were explicitly linked to a global framework (i.e. the Global Alliance for DRR). In this case, the URCS national DRR strategy takes the HFA and applies it to the Ugandan context. One of the major goals of this strategy is to change community perception of the URCS as a direct service provider, to an organization that promotes capacity building and community driven resiliency. In its DRR Strategy Report, the organization links its national prerogatives with the HFA Priority Areas (Figure 2).

This evaluation sought to understand impacts from URCS field efforts in the context of the national DRR strategy and HFA priority areas. First, quantitative findings from the household surveys will be compared with baseline indicators. Each section of the survey is structured to correspond with an HFA priority area. Quantitative findings will then be compiled in a summary segment at the end of each section so that a greater understanding of URCS/ARC progress in that priority area can be gleaned. The report will then turn to qualitative findings to record observations and make recommendations on improvements for future interventions.

URCS National DRR Strategy	
Core DRR Component	Hyogo Framework for Action
<p><i>Vulnerability and Capacity Assessment: Basis for planning DRR interventions</i></p> <ul style="list-style-type: none"> ▪ Determining hazards, who and what are vulnerable and existing capacities to mitigate/ cope with disasters. Determine key risks and vulnerabilities and identify/ prioritize key DRR interventions also considering URCS own role and capacity. 	HFA Priority 2
<p><i>Awareness Raising and Sensitization (i.e. community level; local/ government; RC branches; RC governing boards)</i></p> <ul style="list-style-type: none"> ▪ On the nature of vulnerability and risks ▪ Risk reduction ▪ Climate change ▪ Coping mechanisms and role of community organizations ▪ Role of RC in DRR etc. 	HFA Priority 3
<p><i>Community Mobilization/Organization & Capacity Building</i></p> <ul style="list-style-type: none"> ▪ Establishment/ strengthening of community-based DRR groups (CBDRR) ▪ Leadership/ management training ▪ Skills building (CBHFA etc.) ▪ Knowledge and experience sharing ▪ Registration as CBOs etc. 	HFA Priority 1
<p><i>Disaster Planning at community/ branch level</i></p> <ul style="list-style-type: none"> ▪ Contingency and preparedness plans that make sure response builds on and enhances community capacity ▪ Plans covering whole spectrum of DRR ▪ Simulations/ Exercises ▪ Involving/ linking up with government/ plans etc. 	HFA priorities 1 and 5
<p><i>Community Early Warning/ Early Action Systems</i></p> <ul style="list-style-type: none"> ▪ Monitoring/detection of hazards ▪ Warning and Dissemination ▪ Community mobilization and organization; planning and rehearsing(see 2 and 3) ▪ Response skills (FA etc.) ▪ Promoting linkages with government monitoring; warning; planning etc. 	HFA priority 2
<p><i>Sector-specific mitigation/ risk reduction measures (building on URCS expertise; small-scale and pulling in relevant expertise and government departments).</i></p> <ul style="list-style-type: none"> ▪ Health education and awareness / CBHFA ▪ Safe water conservation ▪ Food security interventions ▪ Selected environmental management/ energy conservation measures 	HFA priority 4
<p><i>Strong auxiliary relationship with local and national governments.</i></p> <ul style="list-style-type: none"> ▪ Disseminating results and lessons learnt from community-based DRR initiatives to local/ national governments ▪ Defining active partnerships with government and non-government agencies at local/ national levels (MoUs etc.) ▪ Making sure our interventions complement what others do ▪ Full participation in local DDMCs and in the National Platform ▪ Promoting our contribution to the implementation of Global Agenda/HFA ▪ Lobbying for an environment that is supportive of risk reduction at the community level etc. 	HFA priority 1

Figure 2: URCS National DRR Strategy in the context of the HFA

Section 1: Hyogo Framework for Action, Priority 1

The first HFA priority is to “Ensure that disaster risk reduction (DRR) is a national and local priority with a strong institutional basis for implementation” (UNISDR 2005). The key activities in this priority area are:

- DRR institutional mechanisms (national platforms); designated responsibilities
- DRR part of development policies and planning, sector wise and multi-sector
- Legislation to support DRR
- Decentralization of responsibilities and resources
- Assessment of human resources and capacities
- Foster political commitment
- Community participation

Many of the activities in the HFA focus on government and institutional capacity which may seem at odds with the focus of the Katakwi DRR project which was risk reduction at the community and individual level. However, the URCS as well as the ARC has used the HFA action areas to inform their DRR programming and more broadly, HFA has influenced the priorities of the Red Cross movement (IFRC 2008). For this reason, it is important to consider community-focused programs like the Katakwi DRR Project through the lens of the HFA. As a result, this section deals primarily with human resource capacities and community participation and how these have changed since the baseline. It was not possible to accurately gauge institutional or electoral mechanisms for DRR through this household survey.

Participation by Gender and Heads of Household

Below is a comparison between the demographics collected during the baseline and from the impact evaluation. In the baseline evaluation, the number of men and women respondents was close to even. In comparison, there were more male respondents than female respondents in the impact evaluation.

Table 4: Baseline Evaluation - Household Survey Participation by Gender

	Male		Female		Total n	Total %
	n	%	n	%		
<i>Amolo</i>	34	5.85%	52	8.95%	86	14.80%
<i>Kapujan</i>	56	9.64%	37	6.37%	93	16.01%
<i>Kokorio</i>	40	6.88%	48	8.26%	88	15.15%
<i>Orimai</i>	48	8.26%	47	8.09%	95	16.35%
<i>Sugur</i>	63	10.84%	72	12.39%	135	23.24%
<i>Wera</i>	46	7.92%	38	6.54%	84	14.46%
Grand Total	287	49.40%	294	50.60%	581	100.00%

Table 5: Impact Evaluation - Household Survey Participation by Gender

	Male		Female		Total n	Total %
	n	%	n	%		
<i>Amolo</i>	66	11.09%	44	7.39%	109	18.32%
<i>Kapujan</i>	58	9.75%	41	6.89%	98	16.47%
<i>Kokorio</i>	50	8.40%	48	8.07%	97	16.30%
<i>Orimai</i>	47	7.90%	50	8.40%	96	16.13%
<i>Sugur</i>	54	9.08%	45	7.56%	98	16.47%
<i>Wera</i>	56	9.41%	42	7.06%	97	16.30%
Grand Total	331	55.63%	270	45.38%	595	100.00%

This difference in gender distribution could be the result of several factors. In the baseline evaluation, it was stated that not all of the respondents were the heads of the household. Reaching the head of the household was not the goal of the evaluation. This was purposefully done in order to avoid a gender gap in responses since most heads of house are men. The distribution of heads of household from the baseline is shown below (Table 6). The baseline did not cross reference the gender of the respondent with their response regarding the head of the household. For this reason, it cannot conclusively be stated that the reason for the equal participation of men and women in the baseline survey was due to women being present in the household while men were away. However, from the impact evaluation we can see that 45.6% respondents were male heads of household while only 27.6% women were heads of household (Table 7).

Table 6: Baseline Evaluation - Heads of Household

Q2	Q102		Father		Mother		Grand Parent		Spouse		Sibling		Child		Other		No Response		Total n	Total %
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Amolo	9	2%	14	2%	12	2%	17	3%	18	3%	8	1%	1	0%	7	1%	86	15%		
Kapujan	15	3%	17	3%	7	1%	23	4%	5	1%	3	1%	20	3%	3	1%	93	16%		
Kokorio	11	2%	18	3%	9	2%	12	2%	16	3%	11	2%	8	1%	3	1%	88	15%		
Orimai	23	4%	18	3%	17	3%	17	3%	8	1%	3	1%	5	1%	4	1%	95	16%		
Sugur	23	4%	26	4%	13	2%	27	5%	21	4%	13	2%	6	1%	6	1%	135	23%		
Wera	4	1%	10	2%	15	3%	19	3%	9	2%	6	1%	16	3%	5	1%	84	14%		
Grand Total	85	15%	103	18%	73	13%	115	20%	77	13%	44	8%	56	10%	28	5%	581	100%		

Table 7: Impact Evaluation - Response Rate for Heads of Household

	Male		Female		Total n
	Head of House	Not Head of House	Head of House	Not Head of House	
<i>Amolo</i>	34	7	26	43	109
<i>Kapujan</i>	53	6	21	19	98
<i>Kokorio</i>	43	8	35	12	97
<i>Orimai</i>	45	2	26	24	96
<i>Sugur</i>	48	7	31	13	98
<i>Wera</i>	51	6	27	14	97
Total %	45.6%	6.0%	27.6%	20.8%	595

Age Distribution

Next, we compare the age distribution in the baseline to the age distribution in the impact evaluation. The age distribution has remained relatively consistent from the baseline to the impact evaluation, as we would expect over a period of 3 years. Average age in the baseline was 42.01, in the impact evaluation there was a slight increase to 43.63.

Table 9: Baseline Evaluation - Age Distribution

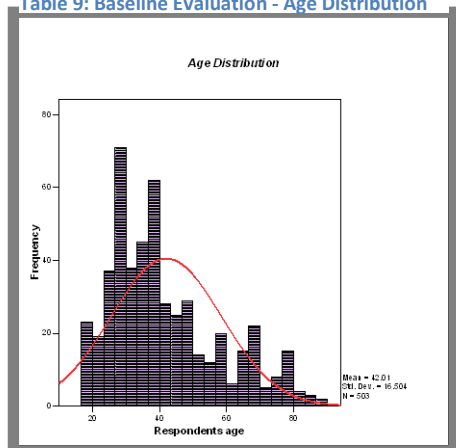
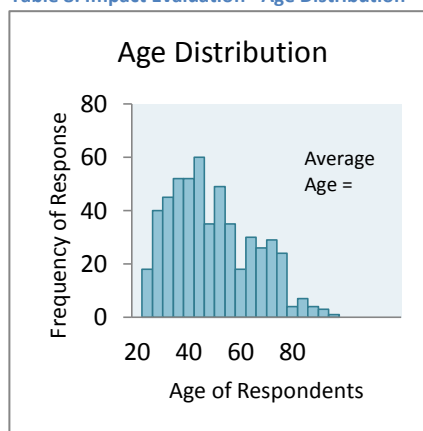


Table 8: Impact Evaluation - Age Distribution



Types of Individuals

In Table 10 and Table 11, we can see the differences in the number and type of individuals in each household between the baseline and the impact evaluation. These numbers have also remained consistent from the baseline to the impact evaluation. The strong exception in this case is Amolo parish, which has seen an increase in all categories. Since the baseline and impact evaluations randomly sampled households to be surveyed, this change could be the result of a difference in the households that were selected for the evaluation. Also, more households were included in the impact evaluation than the baseline so the sample size was larger.

Additionally, the total number of people needing special assistance in a disaster has increased 36% from the baseline to the impact evaluation. However, the criteria for “needing special assistance” were left open-ended by the survey and thus these individuals are self-reported by the community. This is most likely a result of two factors: first, the sample size in the impact evaluation was larger than the baseline and second, the people surveyed may have overestimated the amount of assistance they would need in order to convince the organization to do more programming in the area. The latter concern was strongly expressed during focus group discussions. Respondents would identify the progress made during the project and post-project periods, only to “walk back” the comments and insist that the organization should return with more programming.

Table 10: Baseline Evaluation - Number and Type of Individual in Each Household

Parish	Total Number of People in Surveyed Households	Average Number of People per Household	Total Number of People Under 16 Years	Average Number of People Under 16 Years	Number of People Needing Special Assistance During a Disaster	Average Number of People Needing Special Assistance During a Disaster
Amolo	659	8	340	4	349	4
Kapujan	749	8	402	4	391	4
Kokorio	598	7	324	4	282	3
Orimai	735	8	385	4	422	4
Sugur	1037	8	575	4	579	4
Wera	635	8	371	4	337	4
Grand Total	4413	8	2397	4	2360	4

Table 11: Impact Evaluation - Number and Type of Individual in Each Household

	# of People in Household	Average # of People Per Household	# of People Under 16yrs	Average # of People Under 16yrs	# of People Needing Special Assistance During a Disaster	Average # of People Needing Special Assistance During a Disaster
<i>Amolo</i>	937	9	512	5	727	7
<i>Kapujan</i>	813	8	457	5	595	6
<i>Kokorio</i>	717	7	371	4	487	5
<i>Orimai</i>	748	8	407	4	449	5
<i>Sugur</i>	839	9	463	5	516	5
<i>Wera</i>	699	7	321	3	437	5
<i>Grand Total</i>	4753	8	2531	4	3211	5

Family Livelihoods

To close the demographics segment, we finally turn to a comparison of family livelihoods, energy sources, and use of natural resources from the baseline to the impact evaluation. In terms of family livelihoods, there is a significant difference in responses in the impact evaluation for all types of livelihood activity from the baseline. One reason for this difference is that the question was asked differently in the baseline and impact evaluation. In the baseline, respondents were asked to choose one primary livelihood whereas in the impact evaluation, respondents were asked to choose all of the income generating activities that applied to them. From this, we can see a more robust picture of the type of economic activities households are pursuing. **Error! Reference source not found.** shows that 91.1% of households farm for their livelihood, 2.2% make bricks, 5% are generally employed, 2% make charcoal, 12.9% fish, 23.9% have a micro-business (e.g., selling “home brew”), 32.9% are involved in casual labor, and 2.4% listed “Other” as their source of livelihood; all of the respondents who said “Other” for this question, listed poultry farming and animal rearing as the source of livelihood.

Table 12: Baseline Evaluation - Family Livelihoods

Parish	Q10 Source														Total n	Total %				
	Farming		Brick Making		Employment		Charcol Bu		Fishing		Micro Business		Casual Labor				Other		I don't Know	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
<i>Amolo</i>	77	13%		0%		0%		0%	2	0%	1	0%	6	1%		0%		0%	86	15%
<i>Kapujan</i>	82	14%	1	0%		0%		0%	5	1%	3	1%	1	0%		0%	1	0%	93	16%
<i>Kokorio</i>	77	13%	1	0%		0%		0%	7	1%		0%	2	0%	1	0%		0%	88	15%
<i>Orimai</i>	80	14%	2	0%	2	0%		0%	4	1%	1	0%	4	1%	2	0%		0%	95	16%
<i>Sugur</i>	124	21%	1	0%		0%		0%	7	1%	1	0%	1	0%	1	0%		0%	135	23%
<i>Wera</i>	79	14%		0%		0%	1	0%	3	1%		0%		0%	1	0%		0%	84	14%
<i>Grand Total</i>	519	89%	5	1%	2	0%	1	0%	28	5%	6	1%	14	2%	5	1%	1	0%	581	100%

Table 13: Impact Evaluation - Family Livelihoods

	Farming		Brick making		Employment		Charcoal		Fishing		Micro-business		Casual Labor		Other		No Response		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	99	16.6%	2	0.3%	8	1.3%	3	.5%	18	3.0%	23	3.9%	34	5.7%	5	.8%	2	.3%	109	18.3%
<i>Kapujan</i>	93	15.6%	0	0.0%	4	.7%	0	0.0%	25	4.2%	24	4.0%	32	5.4%	1	.2%	0	0.0%	97	16.3%
<i>Kokorio</i>	83	13.9%	1	0.2%	6	1.0%	2	.3%	6	1.0%	23	3.9%	39	6.6%	4	.7%	0	0.0%	97	16.3%
<i>Orimai</i>	89	15.0%	2	0.3%	10	1.7%	4	.7%	8	1.3%	33	5.5%	28	4.7%	1	.2%	0	0.0%	97	16.3%
<i>Sugur</i>	89	15.0%	1	0.2%	0	0.0%	0	0.0%	17	2.9%	14	2.4%	34	5.7%	2	.3%	0	0.0%	98	16.5%
<i>Wera</i>	89	15.0%	7	1.2%	2	.3%	3	.5%	3	.5%	25	4.2%	29	4.9%	1	.2%	0	0.0%	97	16.3%
<i>Grand Total</i>	542	91.1%	13	2.2%	30	5.0%	12	2.0%	77	12.9%	142	23.9%	196	32.9%	14	2.4%	2	.3%	595	100.0%

Energy Usage

There are several interesting trends in the energy usage of households in Katakwi and Amuria districts (Table 14 and Table 15). First, energy use from all energy sources has increased in the past three years. Secondly, more households report using solar, electricity, and generators as a source of energy. In the baseline evaluation, although solar was given as an option, no respondents reported using it, whereas in the impact evaluation 3.4% of respondents chose solar as their main source of energy. The most interesting finding is the change in the use of wood for energy. Almost all participants in the FGDs stated the importance of tree conservation and tree planting for the health of their community and environment. However, the use of wood has increased from 89% to 95.1% over the past three years. Although this may seem to be contradictory, this increase in the use of wood could be attributed to the greater number of households using Lorena cook stoves--while more people are using wood, the total number of wood that they are using may be lower. Taken together with the proliferation and diversification of income generating activities, it is clear that energy demand has increased from 2010.

Table 14: Baseline Evaluation - Main Source of Energy for Household

Q2	Q108 Source of Energy												Total n	Total %
	Charcoal		Electricity		generator		Wood		Other		No response			
	n	%	n	%	n	%	n	%	n	%	n	%		
Amolo	12	0%		0.00%		0%	73	13%		0%	1	4%	86	17%
Kapujan	11	0%		0.00%		0%	81	15%		0%	1	4%	93	19%
Kokorio	23	1%		0.00%		0%	64	12%	1	0%		0%	88	13%
Orimai	16	1%	1	0.11%	1	0%	77	14%		0%		0%	95	15%
Sugur	7	0%		0.00%		0%	128	23%		0%		0%	135	23%
Wera	11	0%		0.00%		0%	73	13%		0%		0%	84	14%
Grand Total	80	3%	1	0.11%	1	0%	496	89%	1	0%	2	7%	581	100%

Table 15: Impact Evaluation - Main Source of Energy for Household

	Charcoal		Solar		Electricity		Generator		Wood		Other		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	4	.7%	3	.5%	1	.2%	24	4.0%	103	17.3%	6	1.0%	109	18.3%
<i>Kapujan</i>	7	1.2%	0	0.0%	0	0.0%	21	3.5%	94	15.8%	5	.8%	98	16.5%
<i>Kokorio</i>	9	1.5%	2	.3%	2	.3%	27	4.5%	94	15.8%	3	.5%	97	16.3%
<i>Orimai</i>	4	.7%	5	.8%	0	0.0%	19	3.2%	89	15.0%	4	.7%	97	16.3%
<i>Sugur</i>	4	.7%	3	.5%	0	0.0%	15	2.5%	98	16.5%	1	.2%	98	16.5%
<i>Wera</i>	9	1.5%	7	1.2%	1	.2%	26	4.4%	88	14.8%	4	.7%	96	16.1%
Grand Total	37	6.2%	20	3.4%	4	.7%	132	22.2%	566	95.1%	23	3.9%	595	100.0%

Use of Natural Resources

Reliance upon most natural resources has not meaningfully changed since 2010. Dependence on land (baseline n = 479, impact n = 506), trees (baseline n = 517, impact n = 531), and wetlands (baseline n = 251, impact n = 226) has remained stable, showing only modest 5% increase in reliance on land and a 3% increase in reliance on trees. Reliance on wetlands declined a slight 10% from 2010 to 2013. The reliance upon lakes/rivers (baseline n = 196, impact n = 82) and wild plants/animals (baseline n = 147, impact n = 94) has changed more dramatically, tumbling 58% and 36% respectively since 2010.

Table 16: Baseline Evaluation - Three Most Relied Upon Natural Resources

Parish	Trees		Swamps & Wetlands		Lakes & Rivers		Wild Plants & Animals		Land		Others		No Response		Total n	Total %
Amolo	63	4%	28	2%	17	1%	28	2%	59	3%	3	0%	24	1%	224	13%
Kapujan	87	5%	28	2%	45	3%	7	0%	87	5%	0	0%	0	0%	255	15%
Kokorio	94	5%	38	2%	52	3%	17	1%	84	5%	7	0%	35	2%	328	19%
Orimai	91	5%	49	3%	24	1%	31	2%	98	6%	0	0%	17	1%	311	18%
Sugur	108	6%	73	4%	49	3%	31	2%	77	4%	0	0%	0	0%	339	19%
Wera	73	4%	35	2%	7	0%	31	2%	73	4%	0	0%	66	4%	286	16%
Grand Total	517	30%	251	14%	196	11%	147	8%	479	27%	10	1%	143	8%	1743	100%

Table 17: Impact Evaluation - Three Most Relied Upon Natural Resources³

	Trees		Swamps/Wetlands		Lakes/Rivers		Wild Plants/Animals		Land		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	94	15.9%	46	7.8%	7	1.2%	15	2.5%	94	15.9%	109	18.4%
<i>Kapujan</i>	89	15.0%	45	7.6%	13	2.2%	18	3.0%	86	14.5%	98	16.5%
<i>Kokorio</i>	87	14.7%	28	4.7%	14	2.4%	14	2.4%	83	14.0%	95	16.0%
<i>Orimai</i>	83	14.0%	35	5.9%	27	4.6%	17	2.9%	83	14.0%	97	16.4%
<i>Sugur</i>	84	14.2%	49	8.3%	5	.8%	21	3.5%	80	13.5%	98	16.5%
<i>Wera</i>	94	15.9%	23	3.9%	16	2.7%	9	1.5%	80	13.5%	96	16.2%
<i>Grand Total</i>	531	89.5%	226	38.1%	82	13.8%	94	15.9%	506	85.3%	593	100.0%

The two most common uses of natural resources in 2013 are trees for firewood (50.1% of respondents) and land for agriculture (62.5% of respondents). Consistent with the responses to the previous question, these two uses for natural resources have seen slight increases since 2010. The most dramatic change in the use of a natural resource is that of fetching water from Lakes/Rivers which has seen an increase from almost 0% of the population to 5% of the population over the past three years (baseline n = 2, impact n = 32). This is in line with qualitative statements from the FGDs and KIIs which reveal that drought conditions and low borehole levels are concerns at the forefront of the public conscious in this area.

Table 18: Baseline Evaluation - Primary Use of Natural Resources

HH Primary use of these resources	Parish												Total n	Total %
	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera			
	n	%	n	%	n	%	n	%	n	%	n	%		
Trees for Charcoal	14	1.3%	6	0.6%	4	0.4%	8	0.7%	4	0.4%	4	0.4%	40	3.7%
Trees for construction	6	0.6%	8	0.7%	20	1.9%	10	0.9%	14	1.3%	24	2.2%	82	7.6%
Trees for Firewood	28	2.6%	44	4.1%	46	4.3%	44	4.1%	58	5.4%	40	3.7%	260	24.2%
Trees IGA	4	0.4%	0	0.0%	4	0.4%	2	0.2%	0	0.0%	0	0.0%	10	0.9%
Wetland for plants	0	0.0%	0	0.0%	4	0.4%	6	0.6%	2	0.2%	4	0.4%	16	1.5%
Wetland for fishing	14	1.3%	32	3.0%	14	1.3%	16	1.5%	34	3.2%	8	0.7%	118	11.0%
Wetland breakmakin	2	0.2%	0	0.0%	0	0.0%	2	0.2%	6	0.6%	0	0.0%	10	0.9%
Wetlands or other IGA	2	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	0.2%	4	0.4%
Wetland fetching water	0	0.0%	4	0.4%	6	0.6%	6	0.6%	2	0.2%	8	0.7%	26	2.4%
Lakes/Rivers fishing	6	0.6%	4	0.4%	6	0.6%	4	0.4%	6	0.6%	2	0.2%	28	2.6%
Lakes/Rivers Irrigation	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	0.4%	0	0.0%	4	0.4%
Lakes/Rivers Transport	2	0.2%	2	0.2%	16	1.5%	4	0.4%	6	0.6%	0	0.0%	30	2.8%
Lakes /Rivers fetching water	0	0.0%	0	0.0%	2	0.2%	0	0.0%	0	0.0%	0	0.0%	2	0.2%
Lakes /Rivers other IGA	14	1.3%	4	0.4%	4	0.4%	12	1.1%	18	1.7%	16	1.5%	68	6.3%
Wild Plants/animals for food	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	0.4%	4	0.4%
Wild Plants /animals herbal	0	0.0%	0	0.0%	2	0.2%	0	0.0%	0	0.0%	0	0.0%	2	0.2%
Wild Plants other IGA	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	0.2%	2	0.2%	4	0.4%
Land for pasture	32	3.0%	4	0.4%	4	0.4%	8	0.7%	4	0.4%	10	0.9%	62	5.8%
Land for Agriculture	20	1.9%	50	4.7%	58	5.4%	54	5.0%	46	4.3%	42	3.9%	270	25.1%
Land for construction	0	0.0%	0	0.0%	10	0.9%	8	0.7%	2	0.2%	12	1.1%	32	3.0%
Land for renting	0	0.0%	0	0.0%	2	0.2%	0	0.0%	0	0.0%	0	0.0%	2	0.2%
Grand Total	144	13.4%	158	14.7%	202	18.8%	184	17.1%	208	19.4%	178	16.6%	1074	100.0%

³ There were 2 non-responses to this question.

Table 19: Impact Evaluation - Primary Use of Natural Resources

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Trees-Charcoal</i>	2	.3%	7	1.2%	13	2.2%	8	1.3%	4	.7%	17	2.9%	51	8.6%
<i>Trees-Construction</i>	25	4.2%	33	5.5%	32	5.4%	49	8.2%	20	3.4%	36	6.1%	195	32.8%
<i>Trees-Firewood</i>	43	7.2%	43	7.2%	52	8.7%	59	9.9%	55	9.2%	46	7.7%	298	50.1%
<i>Trees-Other</i>	2	.3%	0	0.0%	8	1.3%	12	2.0%	5	.8%	10	1.7%	37	6.2%
<i>Wetlands-Planting</i>	8	1.3%	8	1.3%	11	1.8%	8	1.3%	11	1.8%	11	1.8%	57	9.6%
<i>Wetlands-Fishing</i>	19	3.2%	18	3.0%	12	2.0%	16	2.7%	17	2.9%	8	1.3%	90	15.1%
<i>Wetlands-Brick making</i>	0	0.0%	3	.5%	3	.5%	4	.7%	1	.2%	5	.8%	16	2.7%
<i>Wetlands-Other</i>	1	.2%	0	0.0%	3	.5%	2	.3%	3	.5%	4	.7%	13	2.2%
<i>Wetlands-Fetching water</i>	1	.2%	4	.7%	2	.3%	2	.3%	2	.3%	7	1.2%	18	3.0%
<i>Lakes/Rivers-Fishing</i>	0	0.0%	5	.8%	6	1.0%	8	1.3%	3	.5%	1	.2%	23	3.9%
<i>Lakes/Rivers-Irrigation</i>	0	0.0%	0	0.0%	1	.2%	2	.3%	1	.2%	0	0.0%	4	.7%
<i>Lakes/Rivers-Transport</i>	1	.2%	3	.5%	2	.3%	2	.3%	0	0.0%	2	.3%	10	1.7%
<i>Lakes/Rivers-Fetching water</i>	0	0.0%	5	.8%	7	1.2%	8	1.3%	4	.7%	8	1.3%	32	5.4%
<i>Lakes/Rivers-Other</i>	1	.2%	0	0.0%	3	.5%	0	0.0%	0	0.0%	0	0.0%	4	.7%
<i>Wild plants/animals-Food</i>	0	0.0%	3	.5%	3	.5%	0	0.0%	0	0.0%	0	0.0%	6	1.0%
<i>Wild plants/animals-Medicine</i>	0	0.0%	2	.3%	2	.3%	2	.3%	0	0.0%	1	.2%	7	1.2%
<i>Wild plants/animals-Other</i>	0	0.0%	0	0.0%	2	.3%	2	.3%	0	0.0%	0	0.0%	4	.7%
<i>Land-Pasture</i>	8	1.3%	14	2.4%	20	3.4%	27	4.5%	14	2.4%	19	3.2%	102	17.1%
<i>Land-Agriculture</i>	76	12.8%	58	9.7%	63	10.6%	65	10.9%	55	9.2%	55	9.2%	372	62.5%
<i>Land-Construction</i>	17	2.9%	29	4.9%	29	4.9%	46	7.7%	19	3.2%	27	4.5%	167	28.1%
<i>Land-Renting</i>	1	.2%	3	.5%	0	0.0%	0	0.0%	1	.2%	4	.7%	9	1.5%
<i>Land-Other</i>	1	.2%	1	.2%	1	.2%	1	.2%	0	0.0%	2	.3%	6	1.0%
<i>I Don't Know</i>	1	.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	.2%
Total	109	18.3%	98	16.5%	97	16.3%	97	16.3%	98	16.5%	96	16.1%	595	100.0%

Section 2: Hyogo Framework for Action, Priority 2

The second HFA priority for action is to “Identify, assess, and monitor disaster risks and enhance early warning” (UNISDR 2005). The key activities and assessment metrics for this priority include:

- Risk assessments and maps, multi-risk elaboration and dissemination
- Indicators on DRR and vulnerability
- Data and statistical information
- Early warning; people centered information systems; public policy
- Scientific and technological development; data sharing; space-based earth observation; climate modeling and forecasting; early warning
- Regional and emerging risks

Community Knowledge of Local Disasters

The baseline evaluation asked households if their community had been affected by a disaster in the past 5 years. The impact evaluation asked households if they had been affected by a disaster in the past 2 years. The reduced time frame was used to gauge whether there has been any changes in the communities’ capacity to identify and understand disasters. From Table 21, we can see that 95% of respondents below that they have experienced a disaster in the past two years. While this is lower than the 97% of respondents from 2010 who stated they had experienced a disaster, this decrease is most likely due to the shorter time frame used in the question. Notably, all respondents in the impact evaluation took a firm yes/no stance on this issue, unlike in 2010 where 8 households had “No Response” to the question.

Table 20: Baseline Evaluation - Have you been affected by a disaster in the past 5 years?

	Yes		No		No Response		Total	
	n	%	n	%	n	%	n	%
<i>Amolo</i>	80	13.77%	1	0.17%	5	0.86%	86	14.80%
<i>Kapujan</i>	92	15.83%		0.00%	1	0.17%	93	16.01%
<i>Kokorio</i>	85	14.63%	3	0.52%		0.00%	88	15.15%
<i>Orimai</i>	95	16.35%		0.00%		0.00%	95	16.35%
<i>Sugur</i>	131	22.55%	3	0.52%	1	0.17%	135	23.24%
<i>Wera</i>	82	14.11%	1	0.17%	1	0.17%	84	14.46%
<i>Grand Total</i>	565	97.25%	8	1.38%	8	1.38%	581	100.00%

Table 21: Impact Evaluation - Have you been affected by a disaster in the past 2 years?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	102	17.1%	7	1.2%	109	18.3%
<i>Kapujan</i>	92	15.5%	6	1.0%	98	16.5%
<i>Kokorio</i>	93	15.6%	4	.7%	97	16.3%
<i>Orimai</i>	92	15.5%	5	.8%	97	16.3%
<i>Sugur</i>	98	16.5%	0	0.0%	98	16.5%
<i>Wera</i>	90	15.1%	6	1.0%	96	16.1%
<i>Grand Total</i>	567	95.3%	28	4.7%	595	100.0%

Building on the question of whether the community can identify whether a disaster has taken place, the baseline and impact evaluation attempted to understand how households perceive the incidence disasters. In the impact evaluation, we find that communities remain consistent in their identification of floods, droughts, and famine as the most common disasters. The most notable change from 2010 to 2013 is the 93% decrease in households that identify war/tribal conflict as a common disaster affecting their communities. This decline also represents a shift in how households in the project area prioritize disaster concerns since perceived prevalence does not always align with actual incidence. In this case, the perceived prevalence of floods, fires, and droughts has become more in line with actual flood, fire, and drought occurrence. DRR efforts can build upon communities' understanding of the prevalence floods, droughts, and famine to encourage preparedness.

Table 22: Baseline Evaluation - Which disasters has your community been affected by?

Disasters Community been affected by	Parish												Total n	Total %
	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera			
	n	%	n	%	n	%	n	%	n	%	n	%		
Floods	18	1%	62	4%	60	4%	64	5%	130	9%	48	3%	382	28%
Drought	16	1%	54	4%	46	3%	54	4%	100	7%	40	3%	310	22%
Fires	0	0%	0	0%	0	0%	2	0%	4	0%	0	0%	6	0%
War/Conflicts	10	1%	4	0%	10	1%	10	1%	62	4%	16	1%	112	8%
Severe Weather	0	0%	0	0%	2	0%	2	0%	0	0%	0	0%	4	0%
Severe wind	2	0%	0	0%	2	0%	8	1%	10	1%	8	1%	30	2%
Famine	16	1%	50	4%	58	4%	54	4%	118	9%	44	3%	340	25%
Disease out breaks	10	1%	12	1%	12	1%	26	2%	40	3%	22	2%	122	9%
Cattle rustling	6	0%	8	1%	20	1%	8	1%	22	2%	6	0%	70	5%
No response	0	0%	0	0%	2	0%	0	0%	6	0%	0	0%	8	1%
<i>Grand Total</i>	78	6%	190	14%	212	15%	228	16%	492	0.35549	184	13%	1384	100%

Table 23: Impact Evaluation - Which disasters has your community been affected by?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Flooding</i>	81	13.6%	80	13.4%	76	12.8%	79	13.3%	87	14.6%	69	11.6%	472	79.3%
<i>Drought</i>	61	10.3%	53	8.9%	47	7.9%	68	11.4%	38	6.4%	40	6.7%	307	51.6%
<i>Fires</i>	0	0.0%	0	0.0%	1	.2%	7	1.2%	0	0.0%	3	.5%	11	1.8%
<i>War/Tribal Conflict</i>	2	.3%	1	.2%	0	0.0%	0	0.0%	1	.2%	4	.7%	8	1.3%
<i>Severe Weather</i>	4	.7%	2	.3%	3	.5%	6	1.0%	0	0.0%	5	.8%	20	3.4%
<i>Severe Wind</i>	8	1.3%	3	.5%	3	.5%	2	.3%	5	.8%	6	1.0%	27	4.5%
<i>Famine</i>	52	8.7%	54	9.1%	55	9.2%	50	8.4%	56	9.4%	55	9.2%	322	54.1%
<i>Disease Outbreak</i>	14	2.4%	6	1.0%	19	3.2%	15	2.5%	14	2.4%	17	2.9%	85	14.3%
<i>Cattle Rustling</i>	2	.3%	1	.2%	0	0.0%	0	0.0%	1	.2%	5	.8%	9	1.5%
<i>I Don't Know</i>	7	1.2%	6	1.0%	4	.7%	5	.8%	0	0.0%	6	1.0%	28	4.7%
Total	109	18.3%	98	16.5%	97	16.3%	97	16.3%	98	16.5%	96	16.1%	595	100.0%

Along with a stronger identification of floods, droughts, and famines as major disaster concerns, households also believe that disasters are occurring more frequently than they did in 2010. A clear majority of respondents, 66%, believe that disasters are happening more often than in previous years (Table 24). Additionally, respondents were clearly divided into yes/no responses. Unlike the baseline survey, no one who was surveyed in the impact evaluation said that they weren't sure or that they had no response to the question.

From here, the impact evaluation departs from the baseline somewhat in order to probe more deeply into how respondents have made changes to their behavior as a result of the Katakwi DRR Project and to discover whether the HFA Priority 2 indicators show progress as a result.⁴

Table 25: Baseline Evaluation - Perceived Frequency of Disasters

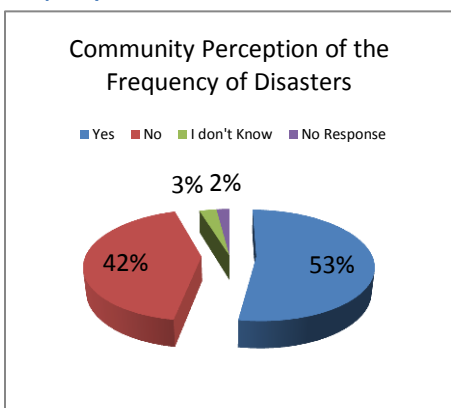
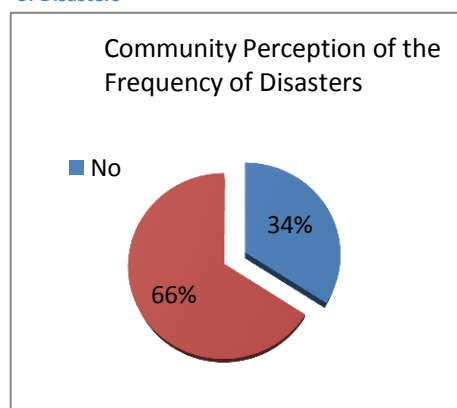


Table 24: Impact Evaluation - Perceived Frequency of Disasters



Behavior Changes as a Result of URCS/ARC Project

Respondents were first asked if they had made any changes as a result of the URCS/ARC program. If they answered yes, they were asked a follow up question to discern what types of changes they made as a result of the project. The results of this inquiry appear in Table 26 and Table 27. Approximately half of respondents, 50.6%, stated that they used information from URCS project to make decisions to prepare for disasters. However, despite a majority of people stating that they had made changes as a result of URCS/ARC programming, very few people could point to specific changes that they had made. A total of 17 respondents were able to choose a specific DRR

⁴ There will still be a few side-by-side comparisons with baseline questions, but most questions are original to the impact evaluation.

action that they had done as a result of the URCS/ARC project. This discrepancy between the two results is most likely the result of the random sample, which did not target direct beneficiaries of the project, and the nature of URCS/ARC work in the area. The URCS has a number of ongoing initiatives in Katakwi and Amuria districts including trainings and seed and tree distributions. Although these efforts are not concentrated in the parishes from the Katakwi project, for the public it may be difficult to distinguish between different URCS programs. For this reason, it is not possible to conclusively attribute the results of Table 26 or Table 27 to the Katakwi DRR Project, Table 26 reveals that community innovation for DRR activities after training from the URCS/ARC is still low.

Table 26: Impact Evaluation - Have you used information from URCS/ARC project to prepare for disasters?

	No		Yes		I Don't Know		No Response		Total	
	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	54	9.1%	52	8.7%	1	.2%	2	.3%	109	18.3%
<i>Kapujan</i>	41	6.9%	56	9.4%	1	.2%	0	0.0%	98	16.5%
<i>Kokorio</i>	45	7.6%	50	8.4%	2	.3%	0	0.0%	97	16.3%
<i>Orimai</i>	47	7.9%	48	8.1%	2	.3%	0	0.0%	97	16.3%
<i>Sugur</i>	57	9.6%	40	6.7%	1	.2%	0	0.0%	98	16.5%
<i>Wera</i>	40	6.7%	55	9.2%	1	.2%	0	0.0%	96	16.1%
Grand Total	284	47.7%	301	50.6%	8	1.3%	2	.3%	595	100.0%

Table 27: Impact Evaluation - What changes have you made as a result of the project?

	Planted drought resistant crops		Planted early maturing crops		Rationed food		Bought extra food		Built flood resistant housing		Drilled boreholes and contributed to maintenance		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	0	0.0%	1	5.9%	1	5.9%	0	0.0%	0	0.0%	0	0.0%	1	5.9%
<i>Kapujan</i>	0	0.0%	1	5.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	5.9%
<i>Kokorio</i>	6	35.3%	7	41.2%	2	11.8%	2	11.8%	3	17.6%	2	11.8%	10	58.8%
<i>Sugur</i>	2	11.8%	2	11.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	11.8%
<i>Wera</i>	0	0.0%	3	17.6%	1	5.9%	0	0.0%	0	0.0%	0	0.0%	3	17.6%
Grand Total	8	47.1%	14	82.4%	4	23.5%	2	11.8%	3	17.6%	2	11.8%	17	100.0%

Climate Change

The baseline evaluation asked respondents a series of questions regarding climate change contributes to emerging risks in the area. First, the baseline asked individuals if they had heard of climate change and then it continued to probe their understanding of the phenomenon. However, this line of questioning depends on respondents understanding potentially unfamiliar technical vocabulary. In the impact evaluation, this line of questioning was simplified to ask households whether they had seen changes in rainfall or temperature in their communities (Table 28) and the type of changes that they had seen (

Table 29). These questions were chosen to gauge the level of awareness of climate change in the project area.

There is a clear consensus among respondents; almost 95% agree that there are seeing changes in rainfall and temperature that depart from historic norms. When these respondents were asked what type of changes they had noticed, 81.5% said they saw less rainfall and 62% said they saw higher temperatures. This finding is consistent with rainfall and temperature observations for the

area, which can be seen in Figures 2 & 3. Average rainfall is clearly lower in the period from 1990-2009 than the average from 1960-1990. Average temperature is only slightly higher; which validates the findings in Table 28, where there is less agreement among respondents regarding temperature changes than rainfall changes.

Table 28: Impact Evaluation - Have you noticed changes in rainfall or temperature?

	No		Yes		Total	
	n	%	n	%	n	%
<i>Amolo</i>	7	1.2%	102	17.1%	109	18.3%
<i>Kapujan</i>	6	1.0%	92	15.5%	98	16.5%
<i>Kokorio</i>	5	.8%	92	15.5%	97	16.3%
<i>Orimai</i>	6	1.0%	91	15.3%	97	16.3%
<i>Sugur</i>	3	.5%	95	16.0%	98	16.5%
<i>Wera</i>	5	.8%	91	15.3%	96	16.1%
<i>Grand Total</i>	32	5.4%	563	94.6%	595	100.0%

Table 29: Impact Evaluation - What types of changes of have you noticed?

	More Rain		Less Rain		Higher Temperatures		Lower Temperatures		No Response		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	17	3.0%	81	14.4%	68	12.1%	12	2.1%	0	0.0%	102	18.1%
<i>Kapujan</i>	5	.9%	84	14.9%	54	9.6%	10	1.8%	1	.2%	92	16.3%
<i>Kokorio</i>	7	1.2%	71	12.6%	62	11.0%	14	2.5%	0	0.0%	92	16.3%
<i>Orimai</i>	12	2.1%	73	13.0%	68	12.1%	13	2.3%	0	0.0%	91	16.2%
<i>Sugur</i>	9	1.6%	83	14.7%	46	8.2%	3	.5%	0	0.0%	95	16.9%
<i>Wera</i>	12	2.1%	67	11.9%	51	9.1%	18	3.2%	0	0.0%	91	16.2%
<i>Grand Total</i>	62	11.0%	459	81.5%	349	62.0%	70	12.4%	1	.2%	563	100.0%

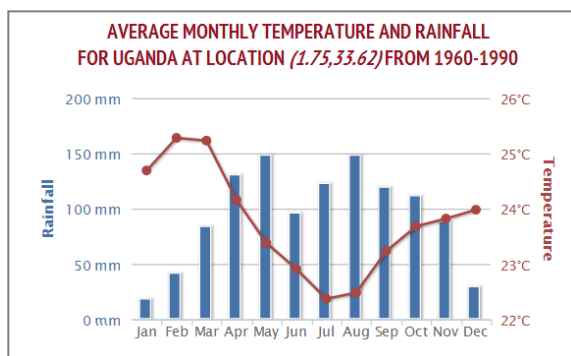


Figure 4: Average monthly temperature and rainfall 1960-1990, Soroti, Uganda. (Historical Climate, Uganda 2005)

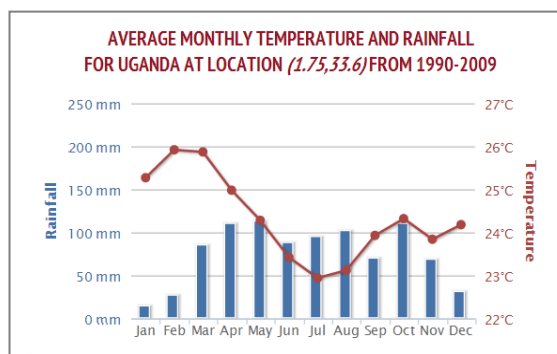


Figure 3: Average monthly temperature and rainfall 1990-2009, Soroti, Uganda. (Historical Climate, Uganda 2005)

Disaster Warnings

One indicator of institutional support for DRR is the availability and prevalence of disaster information and early warnings. Communities were asked a series of questions designed to gauge their access and understanding of disaster warnings. From the survey, almost 92% of respondents reported that they receive disaster warnings (Table 31). This is an almost 50% increase from the baseline (Table 30). Of these respondents, 57% said they received warnings from local government (i.e. local council leaders), 45% said they

received warnings from NGOs and CBOs besides the URCS, and 35% said they got warnings from the family or friends.

The most dramatic change from the baseline is that 37% of people said they received warnings from the URCS in 2013. In 2010, only 0.9% of respondents stated that their source of disaster warning information was from the Red Cross. Finally, respondents were asked how they received these warnings. A large majority of households, 72.5%, receive warnings through radio (Table 34). Slightly more than a quarter of households are told about upcoming disasters by a messenger (i.e. a volunteer mobilized by a local leader who is charged with spreading the word).

Table 30: Baseline Evaluation - Do you receive disaster warnings?

Q2	Q501 Data									
	Yes		No		I don't Know		No Response		Total n	Total %
	n	%	n	%	n	%	n	%		
Amolo	43	7.40%	40	6.88%		0.00%	3	0.52%	86	14.80%
Kapujan	46	7.92%	47	8.09%		0.00%		0.00%	93	16.01%
Kokorio	59	10.15%	29	4.99%		0.00%		0.00%	88	15.15%
Orimai	66	11.36%	27	4.65%	1	0.17%	1	0.17%	95	16.35%
Sugur	97	16.70%	37	6.37%	1	0.17%		0.00%	135	23.24%
Wera	54	9.29%	30	5.16%		0.00%		0.00%	84	14.46%
Grand Total	365	62.82%	210	36.14%	2	0.34%	4	0.69%	581	100.00%

Table 31: Impact Evaluation - Do you receive disaster warnings?

	Yes		No		Total	
	n	%	n	%	n	%
Amolo	99	16.6%	10	1.7%	109	18.3%
Kapujan	88	14.8%	10	1.7%	98	16.5%
Kokorio	89	15.0%	8	1.3%	97	16.3%
Orimai	91	15.3%	6	1.0%	97	16.3%
Sugur	89	15.0%	9	1.5%	98	16.5%
Wera	90	15.1%	6	1.0%	96	16.1%
Grand Total	546	91.8%	49	8.2%	595	100.0%

From this data, we can see the institutional capacity for disaster warning systems is mixed. NGOs and CBOs play a vital and expanded role in alerting people about the onset of a disaster. Although the Red Cross is auxiliary to the government during times of disaster, the organization has seen a dramatic increase in the number of respondents who turn to the organization for disaster warning information. Since the organization typically does not issue disaster warnings, this increase may be due to the utilization of Red Cross volunteers or CBDRR group members to deliver government issued warnings. Although mobile phones are becoming more widespread throughout the country, radio remains the dominate form of technology for disseminating warnings. Only 1.5% of respondents said they got warnings through their phones (via SMS or FM radio application).

Table 32: Baseline Evaluation - Who do you receive disaster information from?

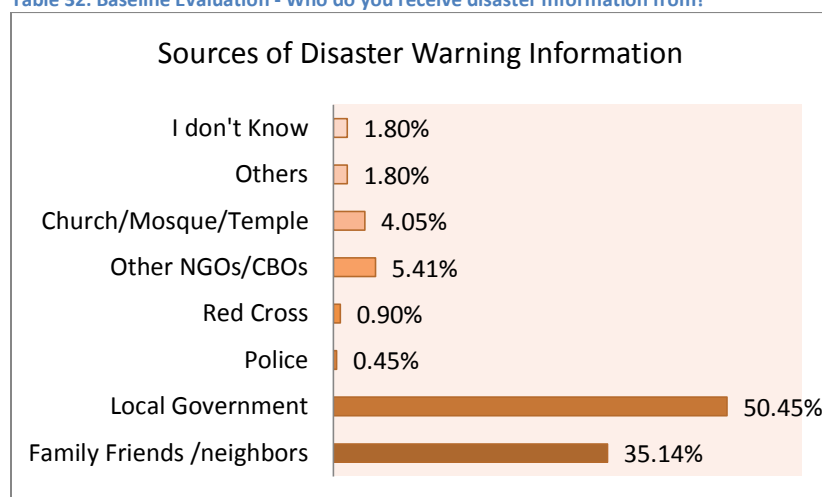


Table 33: Impact Evaluation - Who do you receive disaster warnings from?

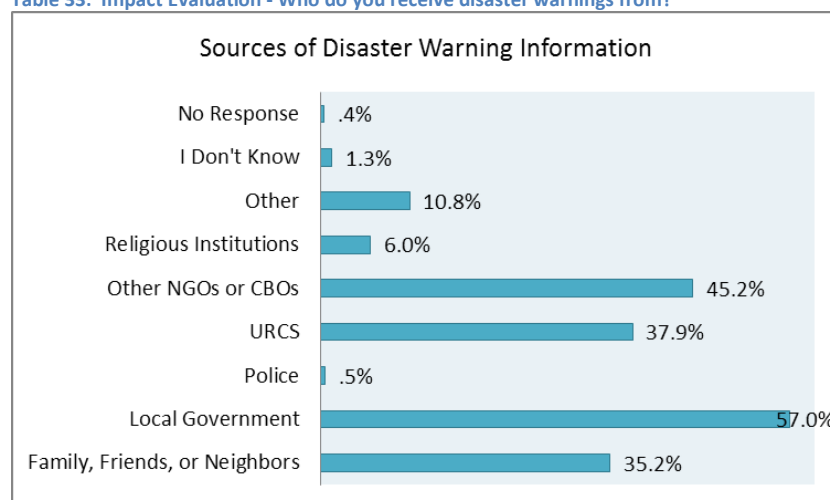


Table 34: Impact Evaluation - How do you receive disaster warnings?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Radio	72	13.2%	74	13.6%	59	10.8%	65	11.9%	58	10.6%	68	12.5%	396	72.5%
Messenger	29	5.3%	28	5.1%	16	2.9%	23	4.2%	18	3.3%	35	6.4%	149	27.3%
Phone	4	.7%	0	0.0%	0	0.0%	2	.4%	0	0.0%	2	.4%	8	1.5%
Newspaper	2	.4%	4	.7%	5	.9%	9	1.6%	3	.5%	20	3.7%	43	7.9%
Flyer or Poster	0	0.0%	3	.5%	3	.5%	4	.7%	3	.5%	3	.5%	16	2.9%
Household visit	9	1.6%	5	.9%	12	2.2%	0	0.0%	12	2.2%	10	1.8%	48	8.8%
Community meeting	17	3.1%	15	2.7%	33	6.0%	27	4.9%	22	4.0%	12	2.2%	126	23.1%
Other	6	1.1%	2	.4%	1	.2%	5	.9%	3	.5%	1	.2%	18	3.3%
I Don't Know	1	.2%	0	0.0%	1	.2%	0	0.0%	2	.4%	1	.2%	5	.9%
No Response	0	0.0%	1	.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	.2%
Total	99	18.1%	88	16.1%	89	16.3%	91	16.7%	89	16.3%	90	16.5%	546	100.0%

Although a high percentage of households report that they receive disaster warnings, this evaluation is particularly concerned with whether households understand the importance of early warnings in helping them prepare/respond to disasters. To explore this further, respondents were asked how much of a role disaster warnings play in helping them respond to disasters. A majority of respondents said that disaster warnings were either very important (69%) or somewhat important (21%) in helping them handle disasters (Table 35).

Table 35: Impact Evaluation - How important are disaster warnings in helping you handle disasters?

	Not Important		Somewhat Important		Very Important		I Don't Know		No Response		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	6	1.0%	30	5.0%	71	11.9%	2	.3%	0	0.0%	109	18.3%
<i>Kapujan</i>	7	1.2%	17	2.9%	71	11.9%	1	.2%	2	.3%	98	16.5%
<i>Kokorio</i>	13	2.2%	17	2.9%	67	11.3%	0	0.0%	0	0.0%	97	16.3%
<i>Orimai</i>	10	1.7%	17	2.9%	70	11.8%	0	0.0%	0	0.0%	97	16.3%
<i>Sugur</i>	9	1.5%	21	3.5%	67	11.3%	1	.2%	0	0.0%	98	16.5%
<i>Wera</i>	9	1.5%	22	3.7%	64	10.8%	0	0.0%	1	.2%	96	16.1%
Total	54	9.1%	124	20.8%	410	68.9%	4	.7%	3	.5%	595	100.0%

Forecast Information

One component of DRR that is especially difficult to disseminate to communities is the importance of climate forecast information. With the reality of climate change, it will become ever more important for communities to be able to make decisions regarding agriculture and livelihoods using forecast information. To this end, the impact evaluation asked households about whether they've received forecast information in the past two years, if they use forecasts in decision-making, and the types of actions they've taken because of a forecast.

Most respondents (79.2%) stated that they had received some type of forecast in the past two years (Table 36). The most common sources of climate forecasts were community leaders, the local government, and the URCS (Table 37). Just over 60% of households claimed that they used this climate forecast information to make a decision about an income generating activity. Of the households who said they used climate information, 63.5% said that they decided to plant early maturing crops as a result of the forecast (Table 38). Qualitative responses from FGDs indicate that improved seed varieties (early maturing and drought resistant crops) are a priority for communities across the region. During FGDs, numerous individuals requested that the URCS distribute improved seeds.

Table 36: Impact Evaluation - Have you received climate forecast information in the past two years?

	Yes		No		I don't know		No Response		Total	
	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	85	14.3%	24	4.0%	2	.4%	1	.2%	109	18.3%
<i>Kapujan</i>	81	13.6%	17	2.9%	0	0.0%	0	0.0%	98	16.5%
<i>Kokorio</i>	81	13.6%	16	2.7%	0	0.0%	0	0.0%	97	16.3%
<i>Orimai</i>	81	13.6%	16	2.7%	0	0.0%	0	0.0%	97	16.3%
<i>Sugur</i>	64	10.8%	34	5.7%	0	0.0%	0	0.0%	98	16.5%
<i>Wera</i>	79	13.3%	17	2.9%	0	0.0%	0	0.0%	96	16.1%
Grand Total	471	79.2%	124	20.8%	2	.4%	1	.2%	595	100.0%

Table 37: Impact Evaluation - Who do you receive climate forecasts from?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Family, friends, or neighbor</i>	22	4.7%	14	3.0%	29	6.2%	18	3.8%	8	1.7%	15	3.2%	106	22.5%
<i>Community leaders</i>	36	7.6%	38	8.1%	36	7.6%	27	5.7%	25	5.3%	52	11.0%	214	45.4%
<i>Local government</i>	29	6.2%	33	7.0%	29	6.2%	39	8.3%	27	5.7%	33	7.0%	190	40.3%
<i>Police</i>	1	.2%	0	0.0%	0	0.0%	1	.2%	0	0.0%	0	0.0%	2	.4%
<i>URCS</i>	19	4.0%	26	5.5%	27	5.7%	24	5.1%	24	5.1%	39	8.3%	159	33.8%
<i>Other NGOs or CBOs</i>	12	2.5%	16	3.4%	6	1.3%	17	3.6%	5	1.1%	9	1.9%	65	13.8%
<i>Religious Institutions</i>	13	2.8%	9	1.9%	4	.8%	7	1.5%	2	.4%	3	.6%	38	8.1%
<i>God</i>	1	.2%	0	0.0%	0	0.0%	0	0.0%	1	.2%	1	.2%	3	.6%
<i>Other</i>	11	2.3%	2	.4%	8	1.7%	12	2.5%	6	1.3%	3	.6%	42	8.9%
<i>I don't know</i>	1	.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	.2%
<i>No response</i>	0	0.0%	2	.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	.4%
Total	85	18.0%	81	17.2%	81	17.2%	81	17.2%	64	13.6%	79	16.8%	471	100.0%

Table 38: Impact Evaluation - Have you used climate forecast information to make decisions?

	Yes		No		I don't know		No response		Total	
	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	65	10.9%	44	7.4%	0	0.0%	0	0.0%	109	18.3%
<i>Kapujan</i>	66	11.1%	32	5.4%	3	.8%	0	0.0%	98	16.5%
<i>Kokorio</i>	61	10.3%	36	6.1%	1	.3%	0	0.0%	97	16.3%
<i>Orimai</i>	58	9.7%	39	6.6%	0	0.0%	1	.3%	97	16.3%
<i>Sugur</i>	46	7.7%	52	8.7%	1	.3%	0	0.0%	98	16.5%
<i>Wera</i>	68	11.4%	28	4.7%	0	0.0%	0	0.0%	96	16.1%
Grand Total	364	61.2%	231	38.8%	5	1.4%	1	.3%	595	100.0%

Table 39: Impact Evaluation - What decision did you make as a result of a climate forecast?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Planted drought resistant crops</i>	35	9.6%	23	6.3%	23	6.3%	27	7.4%	6	1.6%	28	7.7%	142	39.0%
<i>Planted early maturing crops</i>	35	9.6%	44	12.1%	40	11.0%	31	8.5%	43	11.8%	38	10.4%	231	63.5%
<i>Rationed food reserves</i>	15	4.1%	12	3.3%	15	4.1%	16	4.4%	10	2.7%	18	4.9%	86	23.6%
<i>Sold assets</i>	9	2.5%	10	2.7%	5	1.4%	4	1.1%	12	3.3%	7	1.9%	47	12.9%
<i>Bought extra food</i>	0	0.0%	4	1.1%	1	.3%	3	.8%	2	.5%	0	0.0%	10	2.7%
<i>Migrated to another area</i>	4	1.1%	5	1.4%	3	.8%	3	.8%	2	.5%	2	.5%	19	5.2%
<i>Built flood resistant shelter</i>	5	1.4%	6	1.6%	9	2.5%	1	.3%	3	.8%	7	1.9%	31	8.5%
<i>Other</i>	1	.3%	2	.5%	5	1.4%	0	0.0%	0	0.0%	1	.3%	9	2.5%
Total	65	17.9%	66	18.1%	61	16.8%	58	15.9%	46	12.6%	68	18.7%	364	100.0%

Community Perception of Disaster Preparedness and Institutional Support

To end Section 2, the impact evaluation focused on how households perceive their level of disaster preparedness and the types of support that are available. Communities were first asked if they had received DRR training or information in the past 6 months. The purpose of the question was two-fold: to determine if DRR information was being transmitted and who was providing the information. Sixty-four percent of households answered in the affirmative, with consistent trends

across all of the parishes. This is almost a complete reversal of the state of the affairs from 2010 where only 37% of people answered 'yes' and 60% of people said that they had not received DRR information (Table 40).

Table 40: Baseline Evaluation - In the past 6 months, have you received information on how to prepare for future disasters?

	Yes		No		I don't Know		No Response		Total	
	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	25	4.30%	58	9.98%		0.00%	3	0.52%	86	14.80%
<i>Kapujan</i>	26	4.48%	66	11.36%		0.00%	1	0.17%	93	16.01%
<i>Kokorio</i>	39	6.71%	48	8.26%	1	0.17%		0.00%	88	15.15%
<i>Orimai</i>	47	8.09%	45	7.75%		0.00%	3	0.52%	95	16.35%
<i>Sugur</i>	50	8.61%	80	13.77%	1	0.17%	4	0.69%	135	23.24%
<i>Wera</i>	30	5.16%	54	9.29%		0.00%		0.00%	84	14.46%
Grand Total	217	37.35%	351	60.41%	2	0.34%	11	1.89%	581	100.00%

Table 41: Impact Evaluation - In the past 6 months, have you received information on how to prepare for future disasters?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	58	9.7%	51	8.6%	109	18.3%
<i>Kapujan</i>	72	12.1%	26	4.4%	98	16.5%
<i>Kokorio</i>	66	11.1%	31	5.2%	97	16.3%
<i>Orimai</i>	69	11.6%	28	4.7%	97	16.3%
<i>Sugur</i>	50	8.4%	48	8.1%	98	16.5%
<i>Wera</i>	65	10.9%	31	5.2%	96	16.1%
Grand Total	380	63.9%	215	36.1%	595	100.0%

The most common source of DRR information was the local government at 56.2%, followed closely by the URCS 45.6% (Table 42). Since the Red Cross has such a large number of volunteers, it is difficult to determine with certainty what respondents have in mind when they select the URCS as their source of information. Outside of staff, this finding may imply that URCS volunteers and CBDRR members have a more visible role in spreading disaster information. Interviews with local government leaders support this finding. Most interviewees stressed that the government understood the importance of DRR, but had a limited capacity for programming due to funding limitations. With just under half of all households reporting that they receive information about DRR from the URCS, it is clear that DRR as an idea is penetrating communities. Households are associating the Red Cross with DRR, despite its longstanding reputation as a response organization, which is a promising development.

Table 42: Impact Evaluation - Who did you receive DRR information from?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Family, friends, or neighbors</i>	24	6.3%	15	4.0%	23	6.1%	20	5.3%	10	2.6%	20	5.3%	112	29.6%
<i>Local government</i>	33	8.7%	40	10.6%	32	8.4%	40	10.6%	27	7.1%	41	10.8%	213	56.2%
<i>Police</i>	1	.3%	1	.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	.5%
<i>URCS</i>	15	4.0%	38	10.0%	30	7.9%	27	7.1%	23	6.1%	40	10.6%	173	45.6%
<i>Other NGOs or CBOs</i>	3	.8%	20	5.3%	15	4.0%	16	4.2%	5	1.3%	15	4.0%	74	19.5%
<i>Religious Institutions</i>	7	1.8%	4	1.1%	3	.8%	2	.5%	0	0.0%	4	1.1%	20	5.3%
<i>Other</i>	3	.8%	4	1.1%	3	.8%	10	2.6%	3	.8%	3	.8%	26	6.9%
Total	57	15.0%	72	19.0%	66	17.4%	69	18.2%	50	13.2%	65	17.2%	379	100.0%

Finally, respondents were asked if their families and communities were prepared for a disaster. A majority of people believe that their families (71.9%) and their communities (72.1%) are prepared for a disaster. Although respondents were not asked about their families in the baseline evaluation, only 61% of respondents said that their communities were ready to handle a disaster in 2010--a 19% increase from 2010 (Table 44).

Table 43: Impact Evaluation - Do you think that you and your family are prepared for a disaster?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	71	11.9%	38	6.4%	109	18.3%
<i>Kapujan</i>	61	10.3%	37	6.2%	98	16.5%
<i>Kokorio</i>	81	13.6%	16	2.7%	97	16.3%
<i>Orimai</i>	77	12.9%	20	3.4%	97	16.3%
<i>Sugur</i>	67	11.3%	31	5.2%	98	16.5%
<i>Wera</i>	71	11.9%	25	4.2%	96	16.1%
<i>Grand Total</i>	428	71.9%	167	28.1%	595	100.0%

Table 44: Baseline Evaluation - Do you think your community is prepared for a disaster?

Q2	Q41 Data								Total n	Total %
	Yes		No		I don't Know		No Response			
	n	%	n	%	n	%	n	%		
<i>Amolo</i>	48	8.26%	29	4.99%	7	1.20%	2	0.34%	86	14.80%
<i>Kapujan</i>	42	7.23%	37	6.37%	11	1.89%	3	0.52%	93	16.01%
<i>Kokorio</i>	54	9.29%	30	5.16%	1	0.17%	3	0.52%	88	15.15%
<i>Orimai</i>	58	9.98%	30	5.16%	4	0.69%	3	0.52%	95	16.35%
<i>Sugur</i>	101	17.38%	27	4.65%	3	0.52%	4	0.69%	135	23.24%
<i>Wera</i>	53	9.12%	24	4.13%	4	0.69%	3	0.52%	84	14.46%
<i>Grand Total</i>	356	61.27%	177	30.46%	30	5.16%	18	3.10%	581	100.00%

Table 45: Impact Evaluation - Do you think your community is prepared for a disaster?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	83	13.9%	26	4.4%	109	18.3%
<i>Kapujan</i>	56	9.4%	42	7.1%	98	16.5%
<i>Kokorio</i>	72	12.1%	25	4.2%	97	16.3%
<i>Orimai</i>	73	12.3%	24	4.0%	97	16.3%
<i>Sugur</i>	70	11.8%	28	4.7%	98	16.5%
<i>Wera</i>	75	12.6%	21	3.5%	96	16.1%
<i>Grand Total</i>	429	72.1%	166	27.9%	595	100.0%

Although there has been substantial improvement in DRR awareness almost 30% of respondents said that they do not feel prepared. This is similar to the percentage of people in the baseline who felt unprepared for a disaster. These respondents were asked what types of support they felt was necessary in order to help them reduce their risks. Most of them said they would need more food assistance, non-food items like tarps and tools, and education (Table 46). This finding indicates that while communities believe in that DRR education is important; the overriding concern is for tangible goods. Focus group participants repeatedly requested that the organization hold more training for DRR, but always matched this request with an inquiry about monetary facilitations for community members to attend. This suggests that pairing DRR efforts with livelihood improvement activities would underscore the value of disaster preparedness.

Table 46: Impact Evaluation - What types of support would you need to become prepared for a disaster?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Food</i>	26	16.1%	21	13.0%	10	6.2%	12	7.5%	22	13.7%	21	13.0%	112	69.6%
<i>Non-food items</i>	10	6.2%	11	6.8%	9	5.6%	6	3.7%	15	9.3%	13	8.1%	64	39.8%
<i>Medical</i>	2	1.2%	3	1.9%	5	3.1%	0	0.0%	1	.6%	5	3.1%	16	9.9%
<i>Evacuation plan</i>	1	0.6%	0	0.0%	3	1.9%	0	0.0%	0	0.0%	1	.6%	5	3.1%
<i>Education</i>	6	3.7%	16	9.9%	4	2.5%	4	2.5%	12	7.5%	4	2.5%	46	28.6%
<i>Other</i>	5	3.1%	1	.6%	3	1.9%	2	1.2%	3	1.9%	4	2.5%	18	11.2%
<i>I don't know</i>	0	0.0%	1	.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	.6%
Total	36	22.4%	35	21.7%	16	9.9%	19	11.8%	30	18.6%	25	15.5%	161	100.0%

Summary on Progress in HFA Priority 2

Based on the data from the household survey and supported by findings from the FGDs and KIIs, it can be said that substantive progress has been made in some key metrics for HFA Priority 2. Most importantly communities report that they have a better understanding of the importance of DRR. Indicators on household usage of disaster warnings, climate forecasts, and DRR knowledge has increased across all parishes since 2010. Respondents are more confident that their families and their communities can withstand a disaster. Communities are also better able to identify the types of disasters they are most likely to face (floods, droughts, and food shortage) and can articulate methods of addressing these risks (drought resistant crops, fast maturing crops). Households also seem to be engaging with local government more frequently than before; more respondents reported that they depended on local government for disaster warnings and forecast information.

The role of the URCS/ARC has grown considerably since 2010. From just 0.9% of households turning to the URCS for disaster information in 2010 to almost 40% of households doing so in 2013, the penetration of DRR ideas by the Red Cross has been substantial. The organization’s relationship with the communities it serves has also evolved. People are more likely to identify the Red Cross as a knowledge provider, rather than just a disaster response organization. Despite this progress, more work remains in advancing DRR at the institutional level. Local government has seen an increased demand for DRR services, but it still uncertain if government institutions have the technical and financial capacity to meet this demand.

Section 3: Hyogo Framework for Action, Priority 3

The third HFA priority for action is to “Use knowledge, innovation, and education to build a culture of safety and resilience at all levels” (UNISDR 2005). The key activities for this priority area include:

- Information sharing and cooperation
- Networks across disciplines and regions; dialogue
- Use of standard DRR terminology
- Inclusion of DRR into school curricula, formal and informal education
- Training and learning on DRR: community level, local authorities, targeted sectors; equal access
- Research capacity, multi-risk; socio-economic; application
- Public awareness and media

In exploring this priority area, the impact evaluation focused on public awareness of DRR and the types of community systems that are in place to respond before, and during, a disaster. The Katakwi DRR Project sought to improve information sharing between community members, increase

knowledge of DRR terms and concepts, and raise household awareness of possible preventative actions.

Household Response to Disasters

Households were first asked if they knew what to do in the case of a disaster. Almost 78% of respondents said that they thought their families knew what to do (Table 48). This is a 33% increase from the baseline where only a small majority of individuals said that they were confident their families knew what to do in a disaster (Table 47). To ensure that this sentiment was not merely overconfidence, respondents who answered 'yes' were then asked the specific actions their families would take during a disaster. The two most common actions people said they would take were to seek help from an NGO/CBO and to seek help from the government (Table 49). The most popular of the "individual action" options was to have the family gather at pre-determined meeting point--12% of respondents said that their families would do this

Further analysis revealed that the structure of the question may have diluted the responses of people who would seek help from external sources *and* take individual action. A comparison between the respondents who chose external assistance and individual action revealed that almost 40% of the total number of participants would use a mix of these two measures. This is a quite positive indicator that people in the communities understand to seek help when they need it, but also undertake responsibility for individual responses to a disaster.

Table 47: Baseline Evaluation - Do you feel that your family knows what to do if a disaster happens?

Parish	Data								Total n	Total %
	Yes		No		I don't Know		No response			
	n	%	n	%	n	%	n	%		
Amolo	31	5.34%	54	9.29%		0.00%	1	0.17%	86	14.80%
Kapujan	45	7.75%	41	7.06%	2	0.34%	5	0.86%	93	16.01%
Kokorio	52	8.95%	32	5.51%	3	0.52%	1	0.17%	88	15.15%
Orimai	61	10.50%	32	5.51%	1	0.17%	1	0.17%	95	16.35%
Sugur	83	14.29%	50	8.61%	2	0.34%		0.00%	135	23.24%
Wera	58	9.98%	24	4.13%	2	0.34%		0.00%	84	14.46%
Grand Total	330	56.80%	233	40.10%	10	1.72%	8	1.38%	581	100.00%

Table 48: Impact Evaluation - Do you feel that your family knows what to do if a disaster happens?

	Yes		No		Total	
	n	%	n	%	n	%
Amolo	94	15.8%	15	2.5%	109	18.3%
Kapujan	77	12.9%	21	3.5%	98	16.5%
Kokorio	82	13.8%	15	2.5%	97	16.3%
Orimai	72	12.1%	25	4.2%	97	16.3%
Sugur	60	10.1%	38	6.4%	98	16.5%
Wera	78	13.1%	18	3.0%	96	16.1%
Grand Total	463	77.8%	132	22.2%	595	100.0%

Table 49: What would your family do in the case of a disaster?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Grand Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Gather at a pre-determined meeting point	11	2.5%	8	1.8%	16	3.6%	7	1.6%	4	.9%	8	1.8%	54	12.1%
Provide help to a neighbor	0	0.0%	1	.2%	5	1.1%	1	.2%	2	.4%	2	.4%	11	2.5%
Protect assets	11	2.5%	12	2.7%	10	2.2%	4	.9%	2	.4%	13	2.9%	52	11.7%

<i>Protect the home</i>	7	1.6%	1	.2%	6	1.3%	4	.9%	4	.9%	10	2.2%	32	7.2%
<i>Ration food reserves</i>	6	1.3%	7	1.6%	9	2.0%	4	.9%	3	.7%	9	2.0%	38	8.5%
<i>Seek help from an NGO/CBO</i>	25	5.6%	33	7.4%	38	8.5%	28	6.3%	38	8.5%	40	9.0%	202	45.4%
<i>Seek help from the government</i>	20	4.5%	23	5.2%	27	6.1%	26	5.8%	44	9.9%	34	7.6%	174	39.1%
<i>Seek help from a religious institution</i>	11	2.5%	11	2.5%	6	1.3%	5	1.1%	4	.9%	0	0.0%	37	8.3%
<i>Stay with the home/assets</i>	0	0.0%	2	.4%	1	.2%	3	.7%	0	0.0%	0	0.0%	6	1.3%
<i>Search for family or friends</i>	2	.4%	8	1.8%	2	.4%	4	.9%	2	.4%	2	.4%	20	4.5%
<i>Evacuate</i>	13	2.9%	5	1.1%	7	1.6%	5	1.1%	1	.2%	2	.4%	33	7.4%
<i>Other</i>	9	2.0%	0	0.0%	4	.9%	6	1.3%	3	.7%	3	.7%	25	5.6%
<i>I don't know</i>	1	.2%	2	.4%	1	.2%	1	.2%	3	.7%	1	.2%	9	2.0%
<i>No response</i>	1	.2%	0	0.0%	1	.2%	0	0.0%	7	1.6%	0	0.0%	9	2.0%
<i>Total</i>	73	16.4%	69	15.5%	77	17.3%	66	14.8%	77	17.3%	83	18.7%	445	100.0%

First Aid

If disasters occur in rural or hard to reach areas, it is important for communities to have some local medical capabilities in case responders have trouble reaching people in need. The Katakwi DRR Project gave First Aid training to CBDRR group members to help address a gap in First Aid knowledge. Households were asked if they had anyone in their families who was trained in First Aid. Capacity in this area remains weak with only 17.5% of respondents saying that they had someone in their family with First Aid knowledge (Table 50).

Table 50: Is anyone in your family trained in First Aid?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	15	2.5%	94	15.8%	109	18.3%
<i>Kapujan</i>	19	3.2%	79	13.3%	98	16.5%
<i>Kokorio</i>	19	3.2%	78	13.1%	97	16.3%
<i>Orimai</i>	14	2.4%	83	13.9%	97	16.3%
<i>Sugur</i>	14	2.4%	84	14.1%	98	16.5%
<i>Wera</i>	23	3.9%	73	12.3%	96	16.1%
<i>Grand Total</i>	104	17.5%	491	82.5%	595	100.0%

To determine whether the URCS/ARC project had made any noticeable impact on basic First Aid knowledge in the parishes and the distribution of project beneficiaries, respondents were asked where family member had received their First Aid training. Intriguingly, almost half of all respondents (45%) who stated that someone in their family had been trained in First Aid said that those members had been trained by the URCS (Table 51).

Table 51: Who did they receive their First Aid training from?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Family, friends, or neighbor</i>	4	3.8%	6	5.8%	3	2.9%	0	0.0%	0	0.0%	7	6.7%	20	19.2%
<i>Community leader</i>	4	3.8%	2	1.9%	1	1.0%	1	1.0%	0	0.0%	9	8.7%	17	16.3%
<i>Local government</i>	9	8.7%	3	2.9%	6	5.8%	7	6.7%	2	1.9%	1	1.0%	28	26.9%
<i>URCS</i>	8	7.7%	5	4.8%	7	6.7%	3	2.9%	9	8.7%	15	14.4%	47	45.2%
<i>Other NGOs or CBOs</i>	3	2.9%	1	1.0%	4	3.8%	7	6.7%	3	2.9%	3	2.9%	21	20.2%

<i>Religious institutions</i>	0	0.0%	0	0.0%	0	0.0%	2	1.9%	0	0.0%	2	1.9%	4	3.8%
<i>God</i>	0	0.0%	4	3.8%	1	1.0%	0	0.0%	3	2.9%	0	0.0%	8	7.7%
<i>Other</i>	0	0.0%	2	1.9%	1	1.0%	2	1.9%	0	0.0%	2	1.9%	7	6.7%
<i>I don't know</i>	0	0.0%	1	1.0%	0	0.0%	0	0.0%	1	1.0%	0	0.0%	2	1.9%
Total	15	14.4%	19	18.3%	19	18.3%	14	13.5%	14	13.5%	23	22.1%	104	100.0%

Households were finally asked if there was anyone in their community that had First Aid training. Approximately 60% of respondents believe that there is someone in their community that has training (Table 52). Although this is a positive finding, it should be noted that having First Aid training does not mean someone has the skill or resources to deliver medical care. The main criticisms by focus groups of the First Aid trainings offered by the URCS/ARC project were that trainings were too brief and there was a need to provide follow up support by Red Cross staff to ensure trainees' skills remained relevant. The First Aid trainings that were offered in the project met organizational standards, so the critiques by the focus groups suggests that longer and more advanced trainings could be beneficial for interested communities. Verifying that individuals who are given First Aid training can be trusted to apply their training during a disaster will require further investment by the organization. Hearteningly, community members expressed that they would be receptive to the organization offering more First Aid training in the future.

Table 52: Impact Evaluation - Does your community have people trained in First Aid who can treat the injured?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	61	10.3%	48	8.1%	109	18.3%
<i>Kapujan</i>	47	7.9%	51	8.6%	98	16.5%
<i>Kokorio</i>	64	10.8%	33	5.5%	97	16.3%
<i>Orimai</i>	71	11.9%	26	4.4%	97	16.3%
<i>Sugur</i>	51	8.6%	47	7.9%	98	16.5%
<i>Wera</i>	66	11.1%	30	5.0%	96	16.1%
Grand Total	360	60.5%	235	39.5%	595	100.0%

Vulnerable Groups and Public Awareness

To close the line of inquiry regarding HFA priority area 3, the evaluation asked households several questions intended to discover how they viewed support for vulnerable families and levels of community cooperation during a disaster. An overwhelming majority of respondents (almost 82%) said they felt that vulnerable families were identified and supported during a disaster (

Table 54). This is a 66% increase from the baseline, where only 50% of respondents believed that vulnerable families received support.

Table 53: Baseline Evaluation - Do you think vulnerable families are identified and supported during a disaster?

Parish	Q403 Data									
	Yes		No		I don't Know		No Response		Total n	Total %
	n	%	n	%	n	%	n	%		
Amolo	40	6.88%	41	7.06%	3	0.52%	2	0.34%	86	14.80%
Kapujan	49	8.43%	39	6.71%	1	0.17%	4	0.69%	93	16.01%
Kokorio	55	9.47%	30	5.16%	1	0.17%	2	0.34%	88	15.15%
Orimai	47	8.09%	43	7.40%	5	0.86%		0.00%	95	16.35%
Sugur	58	9.98%	69	11.88%	4	0.69%	4	0.69%	135	23.24%
Wera	42	7.23%	37	6.37%	3	0.52%	2	0.34%	84	14.46%
Grand Total	291	50.09%	259	44.58%	17	2.93%	14	2.41%	581	100.00%

Table 54: Impact Evaluation - Do you think vulnerable families are identified and supported during a disaster?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	89	15.0%	20	3.4%	109	18.3%
<i>Kapujan</i>	78	13.1%	20	3.4%	98	16.5%
<i>Kokorio</i>	81	13.6%	16	2.7%	97	16.3%
<i>Orimai</i>	85	14.3%	12	2.0%	97	16.3%
<i>Sugur</i>	68	11.4%	30	5.0%	98	16.5%
<i>Wera</i>	84	14.1%	12	2.0%	96	16.1%
<i>Grand Total</i>	485	81.5%	110	18.5%	595	100.0%

Respondents next identified their first line of contact for information or help during a disaster. Here, local government in the form of local councilors (LC1s) plays a key role for most households. Close to 71% of respondents first reach out to LCs for information and help (Table 55). Only 24% of respondents turn to the URCS first during a disaster. A central aspect of the Red Cross' approach is to work closely with local leaders; this finding in the impact evaluation indicates that it is important for the organization to continue to cultivate positive relationships with LCs because of their wide reach to communities.

Respondents said that they primarily reached their LCs and other contacts by visiting them directly. Some sent messengers (children or a volunteer) to speak with the contacts. Phone use appears limited. This could be the result of limited access to phones or airtime; however it is beyond the scope of the survey to determine this conclusively.

Table 55: Impact Evaluation - Who do you alert if you help or information during a disaster?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Family, friends, neighbor</i>	37	6.2%	13	2.2%	26	4.4%	16	2.7%	11	1.8%	20	3.4%	123	20.7%
<i>Community leaders</i>	70	11.8%	75	12.6%	66	11.1%	69	11.6%	79	13.3%	62	10.4%	421	70.8%
<i>Local government</i>	16	2.7%	21	3.5%	18	3.0%	24	4.0%	14	2.4%	32	5.4%	125	21.0%
<i>Police</i>	1	.2%	1	.2%	0	0.0%	0	0.0%	1	.2%	0	0.0%	3	.5%
<i>URCS</i>	27	4.5%	30	5.0%	27	4.5%	15	2.5%	19	3.2%	28	4.7%	146	24.5%
<i>Other NGOs and CBOs</i>	4	.7%	16	2.7%	9	1.5%	3	.5%	2	.3%	9	1.5%	43	7.2%
<i>Religious institutions</i>	3	.5%	5	.8%	4	.7%	5	.8%	3	.5%	0	0.0%	20	3.4%
<i>God</i>	3	.5%	1	.2%	0	0.0%	3	.5%	1	.2%	0	0.0%	8	1.3%
<i>No one</i>	1	.2%	1	.2%	1	.2%	0	0.0%	0	0.0%	1	.2%	4	.7%
<i>Other</i>	1	.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	.3%	3	.5%
<i>Total</i>	109	18.3%	98	16.5%	97	16.3%	97	16.3%	98	16.5%	96	16.1%	595	100.0%

Table 56: Impact Evaluation - How do you contact these people during a disaster?

	Messenger		Phone		Letter		Direct visit		Other		I don't know		No response		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	49	8.3%	24	4.1%	5	.8%	62	10.5%	3	.5%	2	.3%	0	0.0%	108	18.3%
<i>Kapujan</i>	39	6.6%	12	2.0%	2	.3%	70	11.8%	0	0.0%	0	0.0%	1	.2%	97	16.4%
<i>Kokorio</i>	38	6.4%	15	2.5%	2	.3%	80	13.5%	0	0.0%	0	0.0%	0	0.0%	96	16.2%

<i>Orimai</i>	24	4.1%	16	2.7%	0	0.0%	74	12.5%	0	0.0%	1	.2%	2	.3%	97	16.4%
<i>Sugur</i>	23	3.9%	7	1.2%	2	.3%	85	14.4%	0	0.0%	0	0.0%	0	0.0%	98	16.6%
<i>Wera</i>	50	8.5%	13	2.2%	6	1.0%	63	10.7%	1	.2%	0	0.0%	1	.2%	95	16.1%
<i>Grand Total</i>	223	37.7%	87	14.7%	17	2.9%	434	73.4%	4	.7%	3	.5%	4	.7%	591	100.0%

Finally, almost 80% of respondents stated that their communities engaged in meetings for disaster planning which is another improvement over the baseline (Table 57, Table 58).

Table 57: Baseline Evaluation - Does your community meet to discuss disaster planning?

Q2	Q41 Data										Total n	Total %
	Yes		No		I don't Know		No Response					
	n	%	n	%	n	%	n	%				
<i>Amolo</i>	30	5.16%	51	8.78%	1	0.17%	4	0.69%	86	14.80%		
<i>Kapujan</i>	31	5.34%	61	10.50%	1	0.17%	0	0.00%	93	16.01%		
<i>Kokorio</i>	47	8.09%	39	6.71%		0.00%	2	0.34%	88	15.15%		
<i>Orimai</i>	47	8.09%	47	8.09%	1	0.17%		0.00%	95	16.35%		
<i>Sugur</i>	70	12.05%	60	10.33%	3	0.52%	2	0.34%	135	23.24%		
<i>Wera</i>	23	3.96%	57	9.81%	2	0.34%	2	0.34%	84	14.46%		
<i>Grand Total</i>	248	42.69%	315	54.22%	8	1.38%	10	1.72%	581	100.00%		

Table 58: Impact Evaluation - Does your community meet to discuss disaster planning?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	83	13.9%	26	4.4%	109	18.3%
<i>Kapujan</i>	78	13.1%	20	3.4%	98	16.5%
<i>Kokorio</i>	83	13.9%	14	2.4%	97	16.3%
<i>Orimai</i>	75	12.6%	22	3.7%	97	16.3%
<i>Sugur</i>	86	14.5%	12	2.0%	98	16.5%
<i>Wera</i>	65	10.9%	31	5.2%	96	16.1%
<i>Grand Total</i>	470	79.0%	125	21.0%	595	100.0%

Summary on Progress in HFA Priority 3

The evaluation focused on discovering the levels of public awareness about DRR and the types of community systems that are available before, and during, a disaster. Many of the findings are quite positive. First, there was a large increase in the number of respondents who said they felt their families knew what to do in case of a disaster. A comparison between the respondents who chose external assistance type actions and individual action revealed that almost 40% of the total number of participants would use a mix of these two measures. This is a strong indicator that people in the communities understand to seek help when they need it, but also undertake responsibility for individual responses to a disaster.

Next, many more respondents said that someone in their families has received First Aid training. However, as illustrated in numerous focus group discussions, many community members are not confident in the ability of these trainees to use their knowledge in a disaster situation. With the URCS responsible for the training of almost half of these individuals, it will be important for the organization to invest in their capacity. Finally, almost all respondents believe that vulnerable groups are better supported and many agree that there are meetings to discuss disaster planning so information sharing and cooperation has also improved. Although the role of the URCS in

community systems has expanded significantly since the baseline, local government is the main point of contact for households needing information or help during a disaster. Strengthening community preparedness systems will require the buy-in of LCs who already have a wide-reach to community members. The organization already strives to cultivate relationships with local leaders and should continue to do so in future DRR efforts.

Section 4: Hyogo Framework for Action, Priority 4

The fourth HFA priority for action is to “Reduce underlying risk factors [for disasters]” (UNISDR 2005). The key activities for this priority area include:

- Sustainable ecosystems and environmental management
- DRR strategies integrated with climate change adaptation
- Food security for resilience
- DRR integrated into health sector and safe hospitals
- Protection of critical public facilities
- Recover of schemes and social safety nets
- Vulnerability reduction with diversified income options
- Financial risk-sharing mechanisms
- Public-private partnership
- Land use planning and building codes
- Rural development plans and DRR

The Katakwi DRR Project mainly sought to reduce underlying risk factors through micro-projects. Communities selected members for a CBDRR group and the URCS, with assistance from the ARC, helped CBDRR group members to conduct vulnerability and capacity assessments (VCAs). After the VCA was completed, CBDRR groups discussed and prioritized the hazards they wanted to address and eventually chose micro-projects to achieve this goal. CBDRR groups were supposed to engage other community members for training on DRR and for assistance in implementing the micro-projects. This section of the evaluation focuses on how successful the CBDRR group was in spreading project knowledge.

Community Awareness of the URCS Project

The URCS and ARC strove to make the URCS inclusive for many different community members; they tried to accomplish this by establishing CBDRR groups through a democratic process. However resource constraints prevented the organization from reaching out to everyone. Awareness of the URCS project was very high across all parishes. Almost 72% of respondents in the project area said that they were aware of URCS activities during the project that were intended reduce impacts of future disasters (Table 59).

Table 59: Impact Evaluation - Are you aware of URCS activities in your community undertaken to reduce impacts of future disasters?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	68	11.4%	41	6.9%	109	18.3%
<i>Kapujan</i>	75	12.6%	23	3.9%	98	16.5%
<i>Kokorio</i>	77	12.9%	20	3.4%	97	16.3%
<i>Orimai</i>	64	10.8%	33	5.5%	97	16.3%
<i>Sugur</i>	65	10.9%	33	5.5%	98	16.5%
<i>Wera</i>	75	12.6%	21	3.5%	96	16.1%
<i>Grand Total</i>	424	71.3%	171	28.7%	595	100.0%

The most well-known projects by a large margin are the energy efficient Lorena cook stoves (69.6%) and the tree planting activities (68.6%) which are almost 30pts more high-profile than the next project on the list (Table 60). One surprising finding is the low level of awareness for model housing in Sugur. This could be due to a translation or naming issue with the CBDRR group members calling the micro-project by a different name.

Table 60: Impact Evaluation - Which URCS activities are you aware of?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Efficient cook stoves</i>	46	10.8%	53	12.5%	44	10.4%	54	12.7%	44	10.4%	54	12.7%	295	69.6%
<i>Flood resistant housing</i>	6	1.4%	15	3.5%	23	5.4%	12	2.8%	22	5.2%	3	.7%	81	19.1%
<i>Tree planting</i>	37	8.7%	52	12.3%	49	11.6%	45	10.6%	54	12.7%	54	12.7%	291	68.6%
<i>Borehole drilling and maintenance</i>	7	1.7%	10	2.4%	5	1.2%	13	3.1%	14	3.3%	13	3.1%	62	14.6%
<i>Cook baskets</i>	12	2.8%	25	5.9%	11	2.6%	17	4.0%	14	3.3%	19	4.5%	98	23.1%
<i>Latrines</i>	18	4.2%	32	7.5%	44	10.4%	26	6.1%	30	7.1%	19	4.5%	169	39.9%
<i>Model housing</i>	7	1.7%	12	2.8%	11	2.6%	8	1.9%	4	.9%	0	0.0%	42	9.9%
<i>Rubbish pits and dish racks</i>	9	2.1%	29	6.8%	35	8.3%	32	7.5%	24	5.7%	19	4.5%	148	34.9%
<i>Other</i>	3	.7%	2	.5%	14	3.3%	11	2.6%	7	1.7%	3	.7%	40	9.4%
<i>I don't know</i>	2	.5%	2	.5%	1	.2%	2	.5%	1	.2%	1	.2%	9	2.1%
<i>No response</i>	1	.2%	0	0.0%	1	.2%	0	0.0%	0	0.0%	0	0.0%	2	.5%
Total	68	16.0%	75	17.7%	77	18.2%	64	15.1%	65	15.3%	75	17.7%	424	100.0%

Perhaps unsurprisingly, Lorena cook stoves and tree-planting also had high participation rates. It should be noted that although tree-planting has the highest participation rate of all the micro-projects, the organization LWF also has active afforestation programs in this area so it is possible some respondents did not distinguish between the URCS and LWF when answering this question. Interestingly, flood resistant housing was only implemented by the Katakwi DRR project in Kokorio, so respondents who reported participating in this activity in other parishes may have been doing so through a different organization's efforts--unfortunately this is difficult to determine with certainty.

Table 61: Impact Evaluation - Which URCS activities did you participate in?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Efficient cook stoves</i>	34	5.8%	40	6.9%	28	4.8%	40	6.9%	25	4.3%	34	5.8%	201	34.5%
<i>Flood resistant housing</i>	4	.7%	9	1.5%	17	2.9%	12	2.1%	3	.5%	3	.5%	48	8.2%
<i>Tree planting</i>	33	5.7%	51	8.8%	37	6.4%	37	6.4%	49	8.4%	50	8.6%	257	44.2%
<i>Borehole drilling and maintenance</i>	2	.3%	1	.2%	1	.2%	4	.7%	3	.5%	11	1.9%	22	3.8%
<i>Cook baskets</i>	11	1.9%	4	.7%	4	.7%	4	.7%	5	.9%	8	1.4%	36	6.2%
<i>Latrines</i>	18	3.1%	41	7.0%	47	8.1%	49	8.4%	50	8.6%	26	4.5%	231	39.7%
<i>Model housing (including rubbish pits and dish racks)</i>	3	.5%	9	1.5%	8	1.4%	6	1.0%	1	.2%	4	.7%	31	5.3%

<i>I did not participate in any URCS projects</i>	8	1.4%	2	.3%	4	.7%	12	2.1%	5	.9%	2	.3%	33	5.7%
<i>I don't know</i>	17	2.9%	6	1.0%	2	.3%	1	.2%	9	1.5%	9	1.5%	44	7.6%
<i>No response</i>	19	3.3%	11	1.9%	9	1.5%	3	.5%	6	1.0%	5	.9%	53	9.1%
Total	105	18.0%	97	16.7%	94	16.2%	94	16.2%	96	16.5%	96	16.5%	582	100.0%

Respondents were next asked which URCS projects they have continued to use or pursue since the end of the Katakwi DRR project. Again, the most continued projects were tree-planting (34.6%) and the Lorena cook stoves (24.6%). Model housing was the least continued project. However, this might be due to households already having dish racks and rubbish pits (and therefore are not actively constructing them anymore) rather than households discontinuing the use of model housing (Table 62).

Table 62: Impact Evaluation - Which URCS activities have you continued?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Efficient cook stoves</i>	24	6.0%	21	5.2%	9	2.2%	15	3.7%	6	1.5%	24	6.0%	99	24.6%
<i>Flood resistant housing</i>	2	.5%	1	.2%	9	2.2%	6	1.5%	1	.2%	0	0.0%	19	4.7%
<i>Tree planting</i>	30	7.5%	26	6.5%	18	4.5%	12	3.0%	28	7.0%	25	6.2%	139	34.6%
<i>Borehole drilling and maintenance</i>	3	.7%	2	.5%	0	0.0%	0	0.0%	1	.2%	7	1.7%	13	3.2%
<i>Cook baskets</i>	6	1.5%	4	1.0%	1	.2%	2	.5%	2	.5%	8	2.0%	23	5.7%
<i>Latrines</i>	12	3.0%	15	3.7%	15	3.7%	17	4.2%	9	2.2%	7	1.7%	75	18.7%
<i>Model housing (including rubbish pits and dish racks)</i>	2	.5%	5	1.2%	5	1.2%	1	.2%	1	.2%	1	.2%	15	3.7%
<i>Other</i>	6	1.5%	4	1.0%	3	.7%	4	1.0%	5	1.2%	4	1.0%	26	6.5%
<i>I do not use any URCS projects</i>	12	3.0%	2	.5%	4	1.0%	14	3.5%	7	1.7%	3	.7%	42	10.4%
<i>I don't know</i>	14	3.5%	6	1.5%	5	1.2%	1	.2%	9	2.2%	7	1.7%	42	10.4%
<i>No response</i>	19	4.7%	9	2.2%	8	2.0%	3	.7%	4	1.0%	7	1.7%	50	12.4%
Total	95	23.6%	67	16.7%	57	14.2%	53	13.2%	60	14.9%	70	17.4%	402	100.0%

Finally, households were asked to describe whether they felt URCS activities had improved their lives. Half of all respondents said that URCS activities had made their lives somewhat better and 22% of respondents through that their lives were greatly improved because of the activities. This is notable because more than 70% of respondents felt that URCS activities had a positive impact on their lives. If communities are able to see benefits then the case for disaster preparedness is more persuasive to individuals who may have competing needs.

Table 63: Impact Evaluation - To what extent do you think the URCS activities have improved your life?

	Not improved		Somewhat improved		Greatly improved		I don't know		No response		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<i>Amolo</i>	23	5.7%	38	9.5%	24	6.0%	9	2.2%	1	.2%	95	23.6%
<i>Kapujan</i>	10	2.5%	41	10.2%	10	2.5%	5	1.2%	1	.2%	67	16.7%
<i>Kokorio</i>	16	4.0%	28	7.0%	11	2.7%	2	.5%	0	0.0%	57	14.2%
<i>Orimai</i>	14	3.5%	25	6.2%	14	3.5%	0	0.0%	0	0.0%	53	13.2%

<i>Sugur</i>	12	3.0%	32	8.0%	15	3.7%	0	0.0%	1	.2%	60	14.9%
<i>Wera</i>	12	3.0%	39	9.7%	15	3.7%	4	1.0%	0	0.0%	70	17.4%
<i>Grand Total</i>	87	21.6%	203	50.5%	89	22.1%	20	5.0%	3	.7%	402	100.0%

Summary on Progress in HFA Priority 4

Awareness of URCS/ARC activities in the Katakwi DRR Project was high in all of the project areas; participation was also robust. The most popular activities, both during the funding period and after the end of the project were the Lorena cook stoves and the tree-planting. These activities were purposely paired during the project--participants who constructed Lorenas also earned trees to plant. Lorenas reduce the amount of firewood needed for cooking and tree-planting replaces the trees that are lost to household energy use and charcoal making. The pairing of these activities helps communities and the URCS make progress on the sustainable ecosystems and environmental management indicator of the HFA. For the URCS and ARC, one of the most important outcomes from the micro-projects could be that communities are able to understand that DRR activities can also improve their day-to-day lives. This allows the organization to lay the ground work for integrating rural development plans and DRR; the “hearts and minds” of the communities are being won by the tangible benefits people can see from the activities. In transmitting knowledge and encouraging behavior change, the latter is vital.

Section 5: Hyogo Framework for Action, Priority 5

The last HFA priority for action is to “Strengthen disaster preparedness for effective response at all levels” (UNISDR 2005). The key activities for this priority area include:

- Disaster management capacities, policy, technical and institutional capacities
- Dialogue, coordination & information exchange between disaster managers and development sectors
- Regional approaches to disaster response, with risk reduction focus
- Review and exercise preparedness and contingency plans
- Emergency funds
- Voluntarism & participation

Like HFA priority area two, priority five is also mainly focused on institutional and governmental preparedness. For this reason, the impact evaluation emphasized the last indicator of voluntarism and participation in its questioning. This was done to better understand how communities view the responsibility for disaster preparation and how much ownership they claim over the process.

First, respondents were asked if they felt that they have a role in ensuring that environmental resources were protected for everyone in their community. Affirmative responses to the question were high during the baseline, but in the impact evaluation, there was almost unanimous (98.7%) consent on this issue (Table 64 and Table 65).

Table 64: Baseline Evaluation - Do you feel that you have a role in protecting environmental resources that you commonly use for the community?

Parish	HH feeling and role that they have a role in ensuring that these resources are protected for the community								Total n	Total %
	Yes		No		I don't Know		No response			
Parish	n	%	n	%	n	%	n	%		
Amolo	73	13%	10	2%		0%	3	1%	86	15%
Kapujan	80	14%	8	1%	1	0%	4	1%	93	16%
Kokorio	77	13%	9	2%	1	0%	1	0%	88	15%
Orimai	90	15%	4	1%		0%	1	0%	95	16%
Sugur	117	20%	13	2%	2	0%	3	1%	135	23%
Wera	82	14%	2	0%		0%		0%	84	14%
Grand Total	519	89%	46	8%	4	1%	12	2%	581	100%

Table 65: Impact Evaluation - Do you feel that you have a role in protecting environmental resources that you commonly use for the community?

	Yes		No		Total	
	n	%	n	%	n	%
Amolo	108	18.2%	1	.2%	109	18.3%
Kapujan	96	16.1%	2	.3%	98	16.5%
Kokorio	96	16.1%	1	.2%	97	16.3%
Orimai	95	16.0%	2	.3%	97	16.3%
Sugur	97	16.3%	1	.2%	98	16.5%
Wera	95	16.0%	1	.2%	96	16.1%
Grand Total	587	98.7%	8	1.3%	595	100.0%

In follow up to this question, respondents were asked if they had participated in a disaster planning meeting in their community. Although more than 75% of people said yes, this percentage should be viewed with caution because FGDs revealed that many people confused disaster *preparedness* with disaster *response*. While communities usually have response-oriented meetings during wet and dry seasons, true preparedness meetings are less common.

Table 66: Impact Evaluation - Have you participated in a disaster planning meeting in your community?

	Yes		No		Total	
	n	%	n	%	n	%
Amolo	80	13.4%	29	4.9%	109	18.3%
Kapujan	73	12.3%	25	4.2%	98	16.5%
Kokorio	83	13.9%	14	2.4%	97	16.3%
Orimai	77	12.9%	20	3.4%	97	16.3%
Sugur	85	14.3%	13	2.2%	98	16.5%
Wera	64	10.8%	32	5.4%	96	16.1%
Grand Total	462	77.6%	133	22.4%	595	100.0%

In order to clarify the outputs of these meetings, households were asked if their communities have evacuation plans and any other preparedness plans. A small majority of respondents believe that their community has an evacuation plan (Table 68). Although not everyone is confident on this issue, this is a complete reversal of the finding from the baseline where only 14% of respondents thought they had an evacuation plan (Table 67). This finding is particularly important in face of the fact that evacuation planning was not emphasized by the project. After the Katakwi DRR project was underway, it was determined that flooding was slow onset and traditional evacuation routes were not needed.

Table 67: Baseline Evaluation - Does your community have an evacuation plan?

Parish	Q404 Data										Total n	Total %
	Yes		No		I don't Know		No Response					
	n	%	n	%	n	%	n	%				
Amolo	9	1.55%	73	12.56%	1	0.17%	3	0.52%			86	14.80%
Kapujan	12	2.07%	79	13.60%	2	0.34%		0.00%			93	16.01%
Kokorio	14	2.41%	71	12.22%	3	0.52%		0.00%			88	15.15%
Orimai	23	3.96%	68	11.70%	4	0.69%		0.00%			95	16.35%
Sugur	14	2.41%	118	20.31%	3	0.52%		0.00%			135	23.24%
Wera	10	1.72%	70	12.05%	3	0.52%	1	0.17%			84	14.46%
Grand Total	82	14.11%	479	82.44%	16	2.75%	4	0.69%			581	100.00%

Table 68: Impact Evaluation - Does your community have an evacuation plan?

	Yes		No		Total	
	n	%	n	%	n	%
Amolo	45	7.6%	64	10.8%	109	18.3%
Kapujan	36	6.1%	62	10.4%	98	16.5%
Kokorio	52	8.7%	45	7.6%	97	16.3%
Orimai	40	6.7%	57	9.6%	97	16.3%
Sugur	45	7.6%	53	8.9%	98	16.5%
Wera	34	5.7%	62	10.4%	96	16.1%
Grand Total	252	42.4%	343	57.6%	595	100.0%

Finally, individuals were asked if they had any other type of preparedness plan (i.e. to save food, build flood resistant houses, etc.). In this case, only 43% of people thought that their community had some type of preparedness plan. The respondents who said 'yes' were asked what the impetus for creating these plans was. Answers were evenly divided between family/friend initiative, and community leader or URCS coaxing (Table 70).

Table 69: Impact Evaluation - Do you have other preparedness plans?

	Yes		No		Total	
	n	%	n	%	n	%
Amolo	58	9.7%	51	8.6%	109	18.3%
Kapujan	44	7.4%	54	9.1%	98	16.5%
Kokorio	41	6.9%	56	9.4%	97	16.3%
Orimai	34	5.7%	63	10.6%	97	16.3%
Sugur	30	5.0%	68	11.4%	98	16.5%
Wera	51	8.6%	45	7.6%	96	16.1%
Grand Total	258	43.4%	337	56.6%	595	100.0%

Table 70: Impact Evaluation - What encouraged you and your community to devise this plan?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Family, friends, or neighbor	11	7.6%	7	4.8%	14	9.7%	5	3.4%	4	2.8%	4	2.8%	45	31.0%
Community leaders	15	10.3%	11	7.6%	8	5.5%	1	.7%	8	5.5%	9	6.2%	52	35.9%
Local government	3	2.1%	9	6.2%	7	4.8%	3	2.1%	3	2.1%	7	4.8%	32	22.1%
URCS	9	6.2%	12	8.3%	11	7.6%	3	2.1%	3	2.1%	11	7.6%	49	33.8%
Other NGOs or CBOs	0	0.0%	8	5.5%	2	1.4%	1	.7%	1	.7%	3	2.1%	15	10.3%
Religious institutions	1	.7%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	.7%
God	4	2.8%	0	0.0%	0	0.0%	4	2.8%	4	2.8%	0	0.0%	12	8.3%
Other	1	.7%	0	0.0%	1	.7%	2	1.4%	0	0.0%	2	1.4%	6	4.1%

<i>Total</i>	31	21.4%	26	17.9%	27	18.6%	17	11.7%	19	13.1%	25	17.2%	145	100.0%
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Summary on Progress in HFA Priority 5

The findings from the impact evaluation indicate that there have been some significant improvements in community ownership of environmental protection and disaster preparedness since the baseline. This is an important development, because preparedness efforts depend on communities to believe that they have a role in protecting their surroundings. This belief also allows people to identify the causal relationship between activities like deforestation and flood risk. Respondents were almost unanimous in their agreement that they had a responsibility to protect environmental resources for community use. This is a promising state of affairs, since it suggests that households do not view resource use as a zero sum game. The potential for collaborative effort is present. Additionally, more people have participated in some type of disaster oriented meeting since 2010. Although not yet a majority, a greater number of households believe that their community has an evacuation plan and preparedness plan. Across all of these metrics, community participation and voluntarism is improved over the baseline. However, there is still progress to be made. Many households were not able to articulate the content of these preparedness plans. Moving forward, the challenge for the URCS and ARC will be to ensure that there is strong awareness of the types of specific actions that should be taken to prepare for a disaster.

Section 6: Sustainability and Community Action

A notable gap in the Hyogo Framework is that sustainability mechanisms are lacking in all of the HFA priority areas. However, for any DRR effort to be truly successful, it must be able to sustain itself beyond the direct funding period. Specific successes and shortfalls in sustaining long term DRR activities was explored in more detail through FGDs and KIIs. However, the household survey also asked participants a series of questions to discover the levels of community involvement in CBDRR activities. Without community engagement, no initiative will be self-sustaining.

Responsibility for Disaster Preparedness and Management

First, respondents were asked who they believe is responsible for preparing for disasters and managing their impact. This question was asked in order to establish whether communities thought outside groups should play a dominant role or if grassroots organizations should take the lead. From the survey, only 26% of respondents thought that it was their responsibility to prepare for disasters and manage impacts. A full 40% of respondents stated that it was the URCS' responsibility (Table 71). Again, it should be noted that respondents may refer to URCS and URCS volunteers/CBDRR group members interchangeably. Further research would be required to determine precise attribution. However, comments from focus group discussions imply that communities were referring to the organization when speaking about this particular issue. Only 8.6% of households believed that the government should be responsible. This indicates that communities may not see the importance of taking ownership of the DRR effort.

Table 71: Impact Evaluation - Who do you think is responsible for preparing for disasters and managing their impact?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Myself, family, friends, or neighbor</i>	25	4.2%	26	4.4%	34	5.7%	31	5.2%	19	3.2%	20	3.4%	155	26.1%

<i>Community leaders</i>	13	2.2%	13	2.2%	11	1.9%	2	.3%	21	3.5%	9	1.5%	69	11.6%
<i>Local government</i>	8	1.3%	7	1.2%	6	1.0%	11	1.9%	9	1.5%	10	1.7%	51	8.6%
<i>Police</i>	3	.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	.5%
<i>URCS</i>	46	7.7%	36	6.1%	43	7.2%	38	6.4%	38	6.4%	44	7.4%	245	41.2%
<i>Other NGOs and CBOs</i>	9	1.5%	11	1.9%	2	.3%	7	1.2%	8	1.3%	8	1.3%	45	7.6%
<i>Religious institutions</i>	1	.2%	2	.3%	0	0.0%	0	0.0%	0	0.0%	2	.3%	5	.8%
<i>God</i>	0	0.0%	1	.2%	0	0.0%	0	0.0%	1	.2%	3	.5%	5	.8%
<i>I don't know</i>	0	0.0%	1	.2%	1	.2%	6	1.0%	2	.3%	1	.2%	11	1.9%
<i>No response</i>	2	.3%	1	.2%	0	0.0%	2	.3%	0	0.0%	0	0.0%	5	.8%
Total	107	18.0%	98	16.5%	97	16.3%	97	16.3%	98	16.5%	97	16.3%	594	100.0%

Participation in CBDRR

Next, households were asked a series of questions regarding the CBDRR groups that were established by the Katakwi DRR project. Almost all respondents said they were aware of these groups (Table 72). A majority, 60%, of people voted during the selection of members to the CBDRR group (Table 73). This participation rate is very high, especially since this was not an election for formal government office.

Table 72: Impact Evaluation - Are you aware of the CBDRR group facilitated by the URCS?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	89	15.0%	19	3.2%	108	18.2%
<i>Kapujan</i>	77	12.9%	21	3.5%	98	16.5%
<i>Kokorio</i>	86	14.5%	11	1.8%	97	16.3%
<i>Orimai</i>	74	12.4%	23	3.9%	97	16.3%
<i>Sugur</i>	83	13.9%	15	2.5%	98	16.5%
<i>Wera</i>	74	12.4%	23	3.9%	97	16.3%
Grand Total	483	81.2%	112	18.8%	595	100.0%

Table 73: Impact Evaluation - Did you participate in electing leaders to the CBDRR group?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	63	10.6%	45	7.6%	108	18.2%
<i>Kapujan</i>	54	9.1%	44	7.4%	98	16.5%
<i>Kokorio</i>	66	11.1%	31	5.2%	97	16.3%
<i>Orimai</i>	63	10.6%	34	5.7%	97	16.3%
<i>Sugur</i>	59	9.9%	39	6.6%	98	16.5%
<i>Wera</i>	49	8.2%	48	8.1%	97	16.3%
Grand Total	354	59.5%	241	40.5%	595	100.0%

Finally, respondents were asked if the CBDRR group kept them informed of activities during the project, which activities they participated in, and if there are any current activities by the CBDRR group that they are active in. If the CBDRR group was truly a grassroots organization, we would expect participation rates to be high. Unfortunately, only 58% of households said that they were kept informed by the CBDRR group. This is close to the same percentage of households who voted for the selection of members (Table 74). Strengthening monitoring and support for CBDRR group engagement with communities could help address this gap. Although it is not possible to say for

certain, these findings indicate that approximately 40% of the households in the project area were not reached through the CBDRR group process.

Table 74: Impact Evaluation - Did the CBDRR group keep you informed of activities?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	51	8.6%	57	9.6%	108	18.2%
<i>Kapujan</i>	70	11.8%	28	4.7%	98	16.5%
<i>Kokorio</i>	54	9.1%	43	7.2%	97	16.3%
<i>Orimai</i>	60	10.1%	37	6.2%	97	16.3%
<i>Sugur</i>	52	8.7%	46	7.7%	98	16.5%
<i>Wera</i>	60	10.1%	37	6.2%	97	16.3%
Grand Total	347	58.3%	248	41.7%	595	100.0%

The micro-projects had the highest participation rate (Table 75). This was the main point of triage between the URCS, the CBDRR group, and the general community. Since technical projects offer individuals tangible benefits, but may not necessarily draw a clear connection to DRR advantages, the URCS and ARC may need to improve community outreach and training efforts--otherwise communities may come to expect physical projects and ignore knowledge transmission.

Table 75: Impact Evaluation - Which CBDRR group activities did you participate in?

	Amolo		Kapujan		Kokorio		Orimai		Sugur		Wera		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Educational meetings</i>	19	3.2%	18	3.1%	22	3.7%	25	4.2%	24	4.1%	20	3.4%	128	21.7%
<i>First aid</i>	8	1.4%	8	1.4%	12	2.0%	13	2.2%	6	1.0%	11	1.9%	58	9.8%
<i>Micro- projects</i>	31	5.3%	51	8.6%	33	5.6%	40	6.8%	40	6.8%	40	6.8%	235	39.8%
<i>Other</i>	11	1.9%	1	.2%	8	1.4%	8	1.4%	1	.2%	7	1.2%	36	6.1%
<i>I did not participate in any group activities</i>	24	4.1%	16	2.7%	22	3.7%	27	4.6%	41	6.9%	21	3.6%	151	25.6%
<i>I don't know</i>	16	2.7%	12	2.0%	6	1.0%	3	.5%	2	.3%	7	1.2%	46	7.8%
<i>No response</i>	12	2.0%	8	1.4%	12	2.0%	2	.3%	1	.2%	2	.3%	37	6.3%
Grand Total	108	18.3%	98	16.6%	94	15.9%	96	16.3%	97	16.4%	97	16.4%	590	100.0%

Finally, the household survey closed by asking individuals if they are still participating in current activities by the CBDRR group. Most households said that there are no current activities that they participate in. The few people who answered 'yes' to this question, said that they still help some people make Lorena cook stoves or plant trees. It should be noted that LWF has active programs that promote both cook stoves and tree-planting, so participants may be engaged in these activities through those venues. Additionally, FGDs and KIIs indicate that while a few individuals are still active with the URCS, most CBDRR group members have not had any activities since the end of the project.

Table 76: Impact Evaluation - Are there current activities by the CBDRR group that you participate in?

	Yes		No		Total	
	n	%	n	%	n	%
<i>Amolo</i>	18	3.0%	90	15.1%	108	18.2%
<i>Kapujan</i>	22	3.7%	76	12.8%	98	16.5%

<i>Kokorio</i>	20	3.4%	77	12.9%	97	16.3%
<i>Orimai</i>	29	4.9%	68	11.4%	97	16.3%
<i>Sugur</i>	12	2.0%	86	14.5%	98	16.5%
<i>Wera</i>	24	4.0%	73	12.3%	97	16.3%
<i>Grand Total</i>	125	21.0%	470	79.0%	595	100.0%

Summary of Progress in Sustainability and Community Action

Sustainability of project activities appears to be the least successful aspect of the Katakwi DRR Project. This may be due in part to households' belief that responsibility to prepare for and manage a disaster rests with the URCS, rather than themselves. From this starting point, the CBDRR efforts by the Katakwi DRR Project may have fallen flat because communities did not take ownership of the initiatives. Awareness of the CBDRR group was generally high, but participation in electing group members and being informed of group activities was almost equal at 60%. FGDs seem to support this finding and a main complaint about the CBDRR groups was that they benefited the same small number of people. Finally, CBDRR groups do not seem to have any organized communal activities since the end of the funding period. However, individual CBDRR group members have reported engagement with projects implemented by other organizations and with community based efforts for savings groups. This suggests that sustainability of CBDRR efforts must be examined more closely during the implementation of the project and follow up conducted by Branch offices after closing out project activities in order to improve outcomes in future projects.

Findings and Analysis - Focus Group Discussions and Key Informant Interviews

Focus group discussions and key informant interviews were conducted in all 6 parishes and with community leaders, community members, project beneficiaries, parish support persons, and program staff. Combined with the findings from the household survey, these qualitative observations create a more complete picture of the impacts of the Katakwi DRR Project. Importantly, these direct testimonies can highlight the best practices and programming shortfalls of the intervention. They can also offer insights into how to better engage with communities for long term sustainability of DRR efforts.

Micro-projects

Key Findings

- Participants considered Lorena cook stoves and tree-planting to be the most beneficial activities
- Few people have continued project activities since the end of the funding period-- the ones that did reported that they had received support from other organizations to continue their efforts
- A majority of individuals believe that only a few people were able to benefit from the Katakwi DRR Project because the organization did not bring enough resources for everyone
- A large majority of individuals were not able to describe how the micro-projects specifically reduced their disaster risks (although they could describe how the project benefited them generally)

One of the main components of the Katakwi DRR Project was the implementation of micro-projects like energy efficient cook stoves and latrines. The URCS established CBDRR groups in each parish and helped these groups conduct vulnerability and capacity assessments. These VCAs were used to determine the major hazards facing communities. CBDRR groups were then tasked with prioritizing hazards and choosing appropriate micro-projects to address them.

As a result of the VCAs, each parish chose a slightly different portfolio of projects. Tree-planting was implemented in all parishes. Lorena cook stoves were implemented in four parishes and latrines were implemented in one parish. Focus group participants often reported micro-projects that had not been implemented by the Katakwi DRR project as occurring in their parish. This discrepancy is most likely due to leakage from projects by other organizations and confusion of the Katakwi DRR project with other URCS efforts.

Discussions with focus groups revealed that community participation in the implementation of these projects was mixed. Respondents in all parishes reported that they felt only a few people were able to benefit from the micro-projects because the organization did not distribute enough resources to benefit everyone. However, almost 35% of respondents in the household survey

reported that they constructed cook stoves and 44% said that they planted trees. The respondents that did participate in the micro-projects held a positive view of them overall. In descending order, tree planting, Lorena cook stoves, borehole maintenance, and latrine digging were the most popular projects.

As supported by the household survey, one of the reasons tree-planting and Lorena stoves were the two most popular projects is that they offer numerous co-benefits. Lorena stoves allowed households to improve human health by reducing indoor smoke inhalation, they reduced cook-times for meals, and they also allow households to use significantly less firewood than open-flame cooking. The last benefit is particularly important for DRR purposes. The reduced use of firewood helps preserve existing tree-cover. Maintaining tree cover helps reduce flood risk (for example, trees absorb moisture from the ground which increases the carrying capacity of the soil). Tree-planting offers a way for households to supplement their income by selling fruits (once trees are mature) and helps replace tree-cover that has already been lost.

Implementing the Lorena cook stoves in conjunction with tree planting allows communities a viable path to long term behavior change because they have an alternative to the status quo. A few entrepreneurial individuals have tried to expand their tree planting efforts and commercialize them by growing seedlings that can be sold to others (FGD - Kapujan). They said that they were catalyzed to do this by the URCS project, but have received support from LWF to continue in their efforts since the end of the Katakwi DRR Project. This is a positive finding since the Red Cross worked closely with LWF during the implementation of the project.

Additionally, only a handful of respondents reported that they were able to use these activities to generate income for themselves and their families. Two respondents, in Kapujan and Wera parish respectively, said that they used water from the rehabilitated boreholes to make bricks and sell them. In Amolo and Wera, two respondents said that, with help from the URCS and LWF, they were able to sell fruits and lumber at market after planting trees. However, these respondents were most likely exaggerating the benefits they had received since cross-checks with the Red Cross revealed that the trees planted during the project have not yet matured enough to give fruit.

Finally, across the 6 parishes, participants said that the four most popular projects were also the most commonly continued projects. However, when probed about this point, a majority of participants said that only a few individuals had started *new* efforts in these activities. Most of the people who “continued” these activities did not invest new time or resources in them. Rather, the focus was on maintaining existing Lorenas, boreholes, and latrines. The exception to this finding is when other organizations stepped in with complementary work. In particular, LWF has been actively promoting Lorena stoves and tree-planting since even before the Katakwi DRR Project began. They have continued this work since the end of the Katakwi Project’s funding period.

Lorena Cook Stoves

Key Findings

- Participants from Wera Sub-county had an extremely strong understanding of how to build Lorena cook stoves.
- Participants from Kapujan Sub-county had a very limited understanding of the cook stoves.

- While cook stoves are still actively being built in Wera, they are not being constructed in Kapujan.
- Users of the cook stove reported that they used less firewood, spent less time cooking, and had more time for farming and for taking care of children.

Respondents for the focus group discussion were chosen from each sub-county, Wera and Kapujan. Overall, the respondents from Wera were better informed about all stages of cook stove construction and were able to describe the benefits of the stove in detail. Respondents were able to reproduce a diagram of the cook stove design, explain the materials needed, and describe the process of constructing the stove. While the level of knowledge about the stoves was high in Wera, in Kapujan the reverse was true. Respondents from Kapujan were not able to describe the construction process and many reported that they no longer used their stoves because they had moved homes. Participants from Kapujan also reported that only a handful of new stoves had been constructed since the end of the project. In Wera, CBDRR members are continuing to help residents construct cook stoves.

During the discussion in Wera, participants were able to articulate the benefits that they received from the cook stoves. They reported that the cook stoves saved them time by making it faster to cook food and by reducing the time spent looking for firewood. The Lorenas have improved their health by decreasing smoke inhalation and reducing the strain of carrying firewood. The Lorenas have also reduced the number of fire related accidents. Respondents used their new free time in a variety of ways including, farming, spending more time with their children and husbands, and pursuing micro-business. All of the Wera respondents said that the Lorenas had reduced disaster risk by lowering the need to cut down trees for firewood.

In Kapujan, the main issue that arose was that there were only a few people who were trained to make the cook stoves. CBDRR group members were trained in making Lorenas and were meant to give guidance to others; however the dissemination of knowledge by group members was weak. Lorena construction in Kapujan sub-county is poor in comparison to Wera. The few respondents who had a functional cook stove reported many of the same benefits as the respondents from Wera. However, Kapujan respondents complained that they CBDRR group was not able to build a cook stove for everyone who requested one. Importantly, the Red Cross never intended the CBDRR groups to make cook stoves for community members. The CBDRR groups were meant to engage with interested individuals to help them construct stoves. Increasing support mechanisms for clarifying roles between the community and CBDRR groups could help decrease the confusion in community expectations.

Finally, Kapujan respondents reported that no cook stoves had been built since the end of the Katakwi DRR Project. They requested that the URCS return and facilitate cook stove construction so that the CBDRR group would be more active. Kapujan respondents were also less able to articulate the DRR benefits of the stoves.

The main difference between Wera and Kapujan sub-counties was that Wera had a strong champion in its parish support person who was critical to spreading information about the Lorena cook stoves. Other FGDs and interviews revealed that this person was instrumental in encouraging the CBDRR group in Wera parish to be active and construct numerous cook stoves. Leadership capacity building trainings for CBDRR group members could help scale up the success of an active “champion”. Kapujan did not have someone who played a similar role. Additionally, the CBDRR

group had a difficult relationship with the URCS and was less active in all of the micro-projects, which negatively affected the adoption of the Lorena.

URCS and DRR

Key Findings

- A majority of respondents said that they were not involved with any risk-mapping activities and that they had not access to the hazard maps that were produced (more than 80% of respondents did not know they were supposed to be able to access the maps)
- Most individuals receive disaster warnings from the LCs, the radio, or from an NGO
- A large majority of individuals did not know if there was a disaster warning system in their parish

At the beginning of the project, CBDRR groups were intended to engage with approximately 60 representatives from the community to carry out the VCAs and create a map of hazards in the area. This VCA was also supposed to help CBDRR groups prioritize hazards and choose micro-projects to address them. A large majority of FGD participants said that only a few people from the community were involved with the risk-mapping and that they did not know what happened to the maps (FGD-Amolo, FGD-Kapujan). Improved information sharing between CBDRR groups and communities would help address this gap. Respondents reported that the URCS and LCs worked together with the CBDRR groups to help create this map., but more than 80% of the participants reported that they did not know that maps were supposed to be stored somewhere they could access them.

Less than 50% of individuals were able to describe how the micro-projects and the CBDRR group helped reduce disaster risks in their community. Most respondents exhibited confusion about DRR terminology and several attempts had to be made to explain the concepts in the local language before the question could be answered. Interestingly, many focus group participants were able to use acronyms such as “CCA” in reference to climate change adaptation (Men’s FGD-Wera, Women’s FGD-Amolo, and Men’s FGD-Kapujan). This suggests that organizations in the area are able to communicate and explain the message of climate change adaptation more effectively than DRR.

Importantly, the Katakwi DRR project had a training for climate change adaptation during the Katakwi DRR project, but did not have an [explicitly] DRR training. Additionally, there was significant confusion regarding the ideas of risk reduction, disaster preparedness, and disaster response. Probing of participants’ answers revealed that in most cases, participants believed that the focus group questions were referring to *response* capabilities, rather than preparedness. Developing and implementing training modules for DRR would help address these gaps in knowledge.

Although the Katakwi DRR Project had originally planned to help improve early warning systems in the parishes, over the project’s implementation period the early warning system aspect was scaled down. Given this, it is unsurprising that no community participants understood what was meant by “early warning system”. They did report that when they received disaster warnings, they usually got them from LCs, the radio, or an NGO. A majority of respondents said that they did not receive a warning before every disaster and only received warnings occasionally. A few participants reported

that they received forecast information, but trust in these forecasts was low because they often did not match respondents' direct observations (FGD-Wera). In all 6 parishes, probing revealed that "forecasts" were understood to mean "weather forecasts".

A large majority of respondents in all parishes reported that they had noticed changes in the number and intensity of disasters that affected their communities. They reported that older people had the most knowledge about disasters and how to respond to a disaster because of their experience. The elders of the community sometimes alert people to the possibility of disasters based on their knowledge of the local environment. Youth are considered to have the least knowledge about disasters; many respondents said that they would support DRR education being included in schools.

Youth and elderly people were also considered the two groups that participated least in the Katakwi DRR Project. Individuals commented that many of the micro-projects were physically demanding, which limited the participation of women in addition to youth and elderly. Discussions with ARC staff revealed that women were central to the implementation and success of the project. They were also the main beneficiaries of activities like the Lorena cook stove because women are usually the main food preparers in the household. The focus groups expressed a desire for projects that would reach a broader swath of the population. Finally, all of the focus groups said that they were "better off" because their parish was included in the project. All groups said that tree planting and Lorena cook stoves were large priorities in their parishes, unlike areas that did not get project funding.

CBDRR Groups

Key Findings

- CBDRR groups in all six parishes have not undertaken any organized activities since the end of the project (although a few individual members have remained active in DRR through tree planting efforts and community savings groups).
- The CBDRR groups frequently complained of the tense relationship with the URCS Project Officer as a limiting factor for their participation.
- CBDRR groups in all parishes stated that they wished the project had compensated them for their work. The organization has determined through past experience that paying CBDRR groups is not conducive to developing grassroots interest in DRR activities. More support for clarifying roles would help prevent distrust between CBDRR groups, communities, and the organization.
- All of the groups reported that they viewed themselves as extensions of the organization and were frustrated with the lack of sustainability or follow up after the project.

The CBDRR groups were one of the keystones of the Katakwi DRR Project. The URCS/ARC approach to DRR is based on the principle of community participation in preparedness efforts. One of the advantages of CBDRR is that it creates grassroots momentum for resiliency efforts. CBDRR is also supposed to allow for the sustainability of DRR activities past the end of the project funding period.

Unfortunately, the CBDRR groups in the Katakwi DRR Project had mixed success in achieving goals for long term impact. Three main factors limited the efficacy of the CBDRR approach in this project:

First, CBDRR group members viewed themselves as an extension of the URCS, rather than grassroots volunteers. This expectation was fueled in part by the URCS' close involvement in the formation of the CBDRR groups and in mobilizing for the selection of group members. To a certain extent, this involvement was inevitable. However, the CBDRR groups were branded with URCS t-shirts, bicycles, and logos when they carried out the implementation of the project. This encouraged group members to think of themselves as acting for the benefit of the organization. All of the parishes shared this view to a certain extent, although the parishes in Kapujan sub-county were most profoundly grounded in this perspective. During the FGDs, participants from these parishes explained that they felt they should have been "facilitated" for the implementation of the project (CBDRR FGD-Kapujan). Many group members cited the fact that they needed to take time away from their primary livelihood in order to participate in the project. This created a burden for them, since they needed to find a way to also meet their other obligations (CBDRR FGD-Wera). Additionally, individuals in the community also viewed them as URCS workers. The CBDRR groups reported that many communities expected the CBDRR group to do *all* of the work for implementing the projects (rather than following a joint implementation model with participation from the general populace). Initially, the relationship between the CBDRR group and the parish support person was generally strong across all of the parishes. However, this relationship soured several months into the project when CBDRR groups understood that the PSPs were receiving a small stipend for their work. This revelation dampened support for the project among CBDRR group members.⁵

Second, the open ballot election of members to the CBDRR groups created an atmosphere where the qualifications for the groups were skewed towards likeability and popularity, rather than technical competence or availability for work. This process was necessitated by local culture and all of the CBDRR groups reported that they were happy with the selection processes; a result that is unsurprising given that the participants had all benefited from it. They emphasized that open voting minimized corruption and increased people's confidence in the legitimacy of the results. However, when probed about improvements or shortfalls, a number of respondents mentioned that some of the people who were selected did not have strong reading/writing skills or enough free time to participate actively. From an organizational perspective, weak literacy skills in group members is not as problematic as focus group participants may believe since members can still bring a wide breadth of experience to the CBDRR group. The URCS may benefit from considering how it approaches adult education and training efforts in light of these realities.

Finally, although sustainability mechanisms were built into the design of the CBDRR groups, wider consideration of available options would benefit future projects. Combined with a tense relationship with the URCS Project Officer, the CBDRR groups had no means or incentive to continue DRR activities after the end of the project's funding. All of the CBDRR groups reported that they had difficulty working with the Project Officer. They reported that he was unreliable and would frequently arrive late to distribute resources and on implementation days. They also stated that he did not bring all of the resources for the micro-activities that were initially promised to them and that he was unwilling to listen to their concerns/ideas. Most importantly, there was great uncertainty about the future of the CBDRR group as the project drew to a close. Future projects would benefit from a deep consideration of how long the organization would like the CBDRR group

⁵ The parish support person approach has been abandoned since the Katakwi DRR project for some of the aforementioned reasons.

to continue working after the end of the initial funding period. In some cases, it may be sufficient for the group to disband after the project's close. In the case of the Katakwi DRR project, the URCS asserted that the CBDRR groups were to be registered as community based organizations (CBOs). CBO registration was supposed to give CBDRR groups an opportunity to pursue funding opportunities with the government or other organizations. However, all 6 parishes claimed that they had never been registered as a CBO, while URCS staff stated the opposite. Regardless, the CBDRR groups operated as if they were not registered and stopped all group activities at the end of the project. (although individual members continue to participate in efforts such as tree planting and savings groups).

Lessons Learned and Recommendations

While there are a number of takeaways from this impact evaluation, some of the most important are in the areas of project design (particularly in regards to sustainability and monitoring and evaluation) and internal human resource capacity. Distilled from the household surveys, FGDs, and KIIs, as well as relevant literature, the lessons learned in these key areas are presented below. Recommendations for improvement as well as identification of best practice are included after the relevant segment.

Project Design

- Both community members and the project staff believe that the project period was too short given the ambitious goals. With only 18 months to achieve the objectives, the feasibility of the project was in question from the beginning.
 - Recommendation: determining the length of a project requires the consideration of several variables, including time, funding, and resource availability. However, it is vital for future projects to ensure that their time frames are compatible with the chosen goals. This might be accomplished by tailoring the baseline to include more detailed capacity assessments. Additionally, a portfolio analysis of complementary work by other organizations in the same area could inform project goals.
- Although the project aimed to use a community based approach, community “ownership” of project activities was limited.
 - Recommendation: to establish community driven efforts, it would be beneficial for the organization to employ community organizing strategies which help groups identify a vision for their efforts, community outreach opportunities, and long term potential for action.
- Although sustainability of project activities was considered from the beginning of the project, more consideration of the organization’s long term goals for CBDRR groups would help determine sustainability options. The cultivation of human resource capacity of the CBDRR members in the form of adult education training, communication/mobilization trainings was not evidenced.
 - Recommendation: the issue of sustainability must become central to future projects, especially when employing a CBDRR approach. The organization would benefit from a clear determination of its goals for a CBDRR group. In some cases, it may be sufficient for the CBDRR group to disband after the end of the project. In cases where the CBDRR group is intended to continue its work, the organization would benefit from guiding groups to procure alternate assistance so that activities can go on after the project ends. Additionally, investment in CBDRR group members in the form of adult education, entrepreneurship, or communication training would increase the capacity of the groups to remain organized.
- The project may have unintentionally excluded several groups including youth and the elderly by implementing physically demanding activities (e.g., cook stove construction, latrine digging, borehole maintenance, tree planting).

- Recommendation: while the micro-projects were a key part of the DRR effort in the program, the Katakwi DRR could have benefited from training/outreach program geared towards women, youth, and the less mobile. This would complement the physical projects and increase knowledge of DRR to a wider swath of the population.
- Program staff reported that monitoring and evaluation was difficult given the limited number of field staff available to collect data and write reports.
 - Recommendation: monitoring and evaluation support for field staff must be robust and not create undue burdens. Standardizing and streamlining the data collection and report writing processes would improve the value of the reports to staff.
- The impact evaluation was not included in the original design of the project, which made it difficult to carry out counterfactual analysis or determine attribution of impacts to the intervention.
 - Recommendation: the decision to undertake an impact evaluation should be considered during the project design stages. Additionally, the survey must be effective at collecting the data required for an estimate of impact. This may involve collecting more granular data points.
- Several best practices from the Katakwi Project could carry over to other programs.
 - The implementation of complementary DRR initiatives like Lorena cook stoves and tree planting encourage reinforcing behavior for participants. In the Katakwi DRR project, these activities were the runaway successes of all micro-projects for this reason.
 - Identifying champions for DRR from local community members and leaders. This type of partnership with local people who already have strong social capital with their peers can help the organization more rapidly gain the trust and buy-in of local communities. The Katakwi project was particularly successful in Wera parish for this very reason.
 - Coordination between the URCS and ARC was strong and the two organizations were able to increase their knowledge and ability to implement projects through this partnership. Institutional gains include improved understanding of training needed for staff and volunteers, as well as technical capacity for DRR.

Institutional Capacity

- Interviews with program staff revealed that there was limited training and support before the start of the project. Trainings over the course of the projects were also limited.
 - Recommendations: there must be a more extensive and thorough training for program staff before a project. This increases technical capacity and also establishes a baseline for performance from staff members. Additionally, regular trainings throughout the course of the project in client management, outreach, communication, finance, and technical skills would also update skills and ensure ongoing improvements in institutional capacity.
- Communication between the national headquarters and the branch office varied in quality and frequency.

- Recommendation: given the rural location of the branch office, communication with national headquarters can be difficult. Employing technologies such as USB modems would help ease some of the difficulties in communication. Additionally, data intensive communication should be minimized so that field staffs are able to use their time effectively. Regular face-to-face check-ins between field staff and national headquarters would also ensure that all staff is “on the same page” regarding the project’s activities.
- The branch office reported difficulties in receiving funds in alignment with project initiatives.
 - Recommendation: advance planning of funding requirements with project deadlines and better communication between finance and program staff would help reduce inefficiencies.
- Staff hiring decisions greatly impacted the implementation of the project and may have sharply limited long-term efficacy of the activities.
 - Recommendation: investment in human resource knowledge would allow the URCS to match skills and temperaments with appropriate projects. In community level work, the ability to communicate with the population being served is critical. Therefore the ability to speak the local language of a target community should be a hiring requirement at the field implementation level. Investment in employee training and retention is critical for the improvement of organizational capacity.
- First Aid was a popular aspect of the project, however participants in the focus groups expressed sentiments that training was too brief and that follow up by the organization was minimal.
 - Recommendation: while the First Aid training that was offered met organization standards, community feedback indicates that there is deeper interest in First Aid training than was available during the project. For future programs, a more advanced First Aid training module could benefit communities who have individuals with strong interest in this knowledge. Additionally, improved follow up by the organization will reinforce First Aid lessons for trainees and build capacity in communities.

Conclusion

The impact evaluation also revealed that while the project was constrained by a variety of design and implementation shortfalls, it also had important positive impacts on the lives of communities in the Katakwi area. Tensions between the URCS Project Officer and CBDRR groups influenced levels of community engagement and may have reduced the efficacy of the CBDRR approach. Additionally, the short time frame of the project and limited success of sustainability mechanisms for the CBDRR groups meant that almost all formal group DRR activities ended when the project closed. It should be noted that individual members from the CBDRR groups are still active in the community--helping with projects implemented by other organizations, helping community members make Lorena stoves, or being involved with community savings groups. From this perspective, the CBDRR approach had mixed success--the CBDRR groups stopped working after the organization withdrew, but were able to successfully implement the project's activities during the funding period. Identifying champions within communities and employing community organizing techniques could improve long term efficacy of resiliency efforts.

However, the successes of the project should not be downplayed. The results of this impact evaluation suggest that the Katakwi DRR Project improved a number of economic and resiliency indicators in the project areas. All six parishes show greater levels of environmental awareness. Tree-planting and Lorena cook stoves are the stand out success of the Katakwi DRR Project; with almost all respondents from FGDs and the household survey reporting their support for these activities (although some of these gains cannot be attributed solely to the Katakwi DRR Project given the variety and scope of other organizations that are active in this area). From the household survey, we can see that the project areas have made some substantial gains in knowledge and preparedness since before the project. An overwhelming majority, 82%, believe that vulnerable families are now identified and supported during a disaster. More people reported that they have disaster warnings than in the baseline and almost 80% of respondents said that their communities meet to plan about disaster preparedness and response. And perhaps most importantly: more than 70% of respondents believe that URCS/ARC activities have made a positive impact on their lives.

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Annex 1

Household Survey - Questions and Confidence Intervals

Note: confidence intervals were calculated for all programmatic questions using SPSS. Due to the way the survey was coded (affirmative response = 1, negative/not applicable response = 0), “yes/no” questions show confidence intervals for the affirmative response only. The full household survey with all questions and answers can be found in Annex 3.

SECTION 1: Demographics

- 1) Are you the head of household?
- 2) Who is the head of household?
- 3) What is your age? (IF UNDER THE AGE OF CONSENT, OBTAIN CONSENT FROM ADULT BEFORE PROCEEDING)
- 4) How many people reside in this household?
- 5) How many people under 16 reside in this household?
- 6) How many people in this household would need special assistance during a disaster?
- 7) What are your family’s sources of livelihood? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Farming</i>	.9109	.888	.934
<i>Brick Making</i>	.0218	.010	.034
<i>Employment</i>	.0504	.033	.068
<i>Charcoal Burning</i>	.0185	.008	.029
<i>Fishing</i>	.1294	.102	.156
<i>Micro business</i>	.2387	.204	.273
<i>Casual Labor</i>	.3277	.290	.366
<i>Other</i>	.0235	.011	.036
<i>I don't know</i>	.0034	-.001	.008
<i>No Response</i>	.0000	.000	.000

- 8) What sources of energy are used in your household? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Charcoal</i>	.0622	.043	.082
<i>Solar</i>	.0336	.019	.048
<i>Electricity</i>	.0067	.000	.013

<i>Generator</i>	.2218	.188	.255
<i>Wood</i>	.9513	.934	.969
<i>Other</i>	.0387	.023	.054

9) What THREE natural resources does your household rely on most during daily life? Anything else?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Trees</i>	.8924	.867	.917
<i>Swamps/Wetlands</i>	.3798	.341	.419
<i>Lakes/Rivers</i>	.1378	.110	.166
<i>Wild Plants/Animals</i>	.1580	.129	.187
<i>Land</i>	.8504	.822	.879

10) What is your primary use of these resources? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Trees-Charcoal</i>	.0857	.063	.108
<i>Trees-Construction</i>	.3277	.290	.366
<i>Trees-Firewood</i>	.5008	.461	.541
<i>Trees-Other</i>	.0622	.043	.082
<i>Wetlands-Planting</i>	.0958	.072	.120
<i>Wetlands-Fishing</i>	.1513	.122	.180
<i>Wetlands-Brick making</i>	.0269	.014	.040
<i>Wetlands-Other</i>	.0218	.010	.034
<i>Wetlands-Fetching water</i>	.0303	.016	.044
<i>Lakes/Rivers-Fishing</i>	.0387	.023	.054
<i>Lakes/Rivers-Irrigation</i>	.0067	.000	.013
<i>Lakes/Rivers-Transport</i>	.0168	.006	.027
<i>Lakes/Rivers-Fetching water</i>	.0538	.036	.072
<i>Lakes/Rivers-Other</i>	.0067	.000	.013
<i>Wild plants/animals-Food</i>	.0101	.002	.018
<i>Wild plants/animals-Medicine</i>	.0118	.003	.020
<i>Wild plants/animals-Other</i>	.0067	.000	.013
<i>Land-Pasture</i>	.1714	.141	.202
<i>Land-Agriculture</i>	.6252	.586	.664
<i>Land-Construction</i>	.2807	.244	.317
<i>Land-Renting</i>	.0151	.005	.025
<i>Land-Other</i>	.0101	.002	.018
<i>I Don't Know</i>	.0017	-.002	.005

SECTION 2:

11) Has this community been affected by a disaster in the past 2 years?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.9529	.936	.970

12) Which disasters has your community been affected by in the past two years? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Flooding</i>	.7933	.761	.826
<i>Drought</i>	.5160	.476	.556
<i>Fires</i>	.0185	.008	.029
<i>War/Tribal Conflict</i>	.0134	.004	.023
<i>Severe Weather</i>	.0336	.019	.048
<i>Severe Wind</i>	.0454	.029	.062
<i>Famine</i>	.5412	.501	.581
<i>Disease Outbreak</i>	.1429	.115	.171
<i>Cattle Rustling</i>	.0151	.005	.025
<i>I Don't Know</i>	.0471	.030	.064

13) Do you feel disasters are occurring more frequently in your community?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.6588	.621	.697

14) Have you used information gained from the URCS program to make decisions to prepare for and cope with disasters?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	2.0218	1.091	2.953
<i>I Don't Know</i>	.0134	.004	.023
<i>No Response</i>	.0034	-.001	.008

15) If YES, what changes have you made as a result of the URCS program? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Planted drought resistant crops</i>	.0134	.004	.023
<i>Planted early maturing crops</i>	.0235	.011	.036
<i>Rationed food</i>	.0067	.000	.013
<i>Bought extra food</i>	.0034	-.001	.008
<i>Built flood resistant housing</i>	.0050	-.001	.011
<i>Drilled boreholes and contributed to maintenance</i>	.0034	-.001	.008

16) Have you noticed any changes in rainfall amount and/or temperature in your community?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.9462	.928	.964

17) If yes, what changes have you seen? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>More Rain</i>	.1042	.080	.129
<i>Less Rain</i>	.7714	.738	.805
<i>Higher Temperatures</i>	.5866	.547	.626
<i>Lower Temperatures</i>	.1176	.092	.144
<i>No Response</i>	.0017	-.002	.005

18) Do you receive disaster warnings?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.9176	.895	.940

19) Who do these warnings come from? Anyone else? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Family, Friends, or Neighbors</i>	.3227	.285	.360
<i>Local Government</i>	.5227	.482	.563
<i>Police</i>	.0050	-.001	.011
<i>URCS</i>	.3479	.310	.386
<i>Other NGOs or CBOs</i>	.4151	.375	.455
<i>Religious Institutions</i>	.0555	.037	.074
<i>Other</i>	.0992	.075	.123
<i>I Don't Know</i>	.0118	.003	.020
<i>No Response</i>	.0034	-.001	.008

20) How do you receive these warnings? Any other way? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Radio</i>	.6655	.628	.704
<i>Messenger</i>	.2504	.216	.285
<i>Phone</i>	.0134	.004	.023
<i>Newspaper</i>	.0723	.051	.093

<i>Flyer or Poster</i>	.0269	.014	.040
<i>Household visit</i>	.0807	.059	.103
<i>Community meeting</i>	.2118	.179	.245
<i>Other</i>	.0303	.016	.044
<i>I Don't Know</i>	.0084	.001	.016
<i>No Response</i>	.0017	-.002	.005

21) For you and your family, how important are disaster warnings in helping you respond to disasters?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Not Important</i>	.0908	.068	.114
<i>Somewhat Important</i>	.2084	.176	.241
<i>Very Important</i>	.6891	.652	.726
<i>I Don't Know</i>	.0067	.000	.013
<i>No Response</i>	.0050	-.001	.011

22) In the past six months, have you received any information regarding how to plan for future disasters in order to reduce their impact?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.6387	.600	.677

23) If YES, who did you receive this information from? Anyone else? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Family, friends, or neighbors</i>	.1882	.157	.220
<i>Local government</i>	.3580	.319	.397
<i>Police</i>	.0034	-.001	.008
<i>URCS</i>	.2908	.254	.327
<i>Other NGOs or CBOs</i>	.1244	.098	.151
<i>Religious Institutions</i>	.0336	.019	.048
<i>Other</i>	.0437	.027	.060

24) Do you feel that you and your family are currently prepared for a disaster?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.7193	.683	.756
<i>I don't know</i>	.0067	.000	.013

25) If NO, what type of support do you think you need to become prepared for a disaster? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Food</i>	.1882	.157	.220
<i>Non-food items</i>	.1076	.083	.133
<i>Medical</i>	.0269	.014	.040
<i>Evacuation plan</i>	.0084	.001	.016
<i>Education</i>	.0773	.056	.099
<i>Other</i>	.0303	.016	.044
<i>I don't know</i>	.0017	-.002	.005

26) Do you feel the community is currently prepared for a disaster?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.7210	.685	.757
<i>I don't know</i>	.1160	.090	.142

27) In the past 2 years, have you received [climate] forecast information?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.7916	.759	.824

28) If YES, who have you received forecast information from? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Family, friends, or neighbor</i>	.1782	.147	.209
<i>Community leaders</i>	.3597	.321	.398
<i>Local government</i>	.3193	.282	.357
<i>Police</i>	.0034	-.001	.008
<i>URCS</i>	.2672	.232	.303
<i>Other NGOs or CBOs</i>	.1092	.084	.134
<i>Religious Institutions</i>	.0639	.044	.084
<i>God</i>	.0050	-.001	.011
<i>Other</i>	.0706	.050	.091
<i>I don't know</i>	.0017	-.002	.005
<i>No response</i>	.0034	-.001	.008

29) Have you used forecast information to make decisions?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.6118	.572	.651
<i>I don't know</i>	.0084	.001	.016
<i>No response</i>	.0017	-.002	.005

30) If YES, how have you used forecast information to make decisions? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Planted drought resistant crops</i>	.2387	.204	.273
<i>Planted early maturing crops</i>	.3882	.349	.428
<i>Rationed food reserves</i>	.1445	.116	.173
<i>Sold assets</i>	.0790	.057	.101
<i>Bought extra food</i>	.0168	.006	.027
<i>Migrated to another area</i>	.0319	.018	.046
<i>Built flood resistant shelter</i>	.0521	.034	.070
<i>Other</i>	.0151	.005	.025

SECTION 3:

31) Do you feel that your family knows what to do if a disaster occurs?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.7782	.745	.812

32) What would your family do in the case of a disaster? Anything else? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Gather at a pre-determined meeting point</i>	.0908	.068	.114
<i>Seek help from a neighbor</i>	.3328	.273	.393
<i>Provide help to a neighbor</i>	.0185	.008	.029
<i>Protect assets</i>	.0874	.065	.110
<i>Protect the home</i>	.0538	.036	.072
<i>Ration food reserves</i>	.0639	.044	.084
<i>Seek help from an NGO/CBO</i>	.3395	.301	.378
<i>Seek help from the government</i>	.2924	.256	.329
<i>Seek help from a religious institution</i>	.0622	.043	.082

<i>Stay with the home/assets</i>	.0101	.002	.018
<i>Search for family or friends</i>	.0336	.019	.048
<i>Evacuate</i>	.0555	.037	.074
<i>Other</i>	.0420	.026	.058
<i>I don't know</i>	.0151	.005	.025
<i>No response</i>	.0151	.005	.025

33) Is anyone in your family trained in First Aid?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.1748	.144	.205

34) If YES, who did they receive training from? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Family, friends, or neighbor</i>	.0336	.019	.048
<i>Community leader</i>	.0286	.015	.042
<i>Local government</i>	.0471	.030	.064
<i>URCS</i>	.0790	.057	.101
<i>Other NGOs or CBOs</i>	.0353	.020	.050
<i>Religious institutions</i>	.0067	.000	.013
<i>God</i>	.0134	.004	.023
<i>Other</i>	.0118	.003	.020
<i>I don't know</i>	.0034	-.001	.008

35) Does your community have people trained in First Aid to treat the injured?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.6050	.566	.644
<i>I don't know</i>	.0336	.019	.048
<i>No Response</i>	.0017	-.002	.005

36) Do you feel that the most vulnerable families in your community are identified and supported during a disaster?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.8151	.784	.846
<i>I don't know</i>	.0185	.008	.029
<i>No response</i>	.0017	-.002	.005

37) Who do you alert if you need information or help during a disaster? Anyone else?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Family, friends, neighbor</i>	.2067	.174	.239
<i>Community leaders</i>	.7076	.671	.744
<i>Local government</i>	.2101	.177	.243
<i>Police</i>	.0050	-.001	.011
<i>URCS</i>	.2454	.211	.280
<i>Other NGOs and CBOs</i>	.0723	.051	.093
<i>Religious institutions</i>	.0336	.019	.048
<i>God</i>	.0134	.004	.023
<i>No one</i>	.0067	.000	.013
<i>Other</i>	.0050	-.001	.011

38) How do you contact these people during a disaster? Any other way?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Messenger</i>	.3748	.336	.414
<i>Phone</i>	.1462	.118	.175
<i>Letter</i>	.0286	.015	.042
<i>Direct visit</i>	.7294	.694	.765
<i>Other</i>	.0067	.000	.013
<i>I don't know</i>	.0050	-.001	.011
<i>No response</i>	.0067	.000	.013

39) Does your community meet to discuss disaster planning?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.7899	.757	.823
<i>I don't know</i>	.0101	.002	.018

SECTION 4:

40) Are you aware of URCS activities in your community undertaken to reduce the impact of future disasters?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.7126	.676	.749

41) If YES, which activities are you aware of? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Efficient cook stoves</i>	.4958	.456	.536
<i>Flood resistant housing</i>	.1361	.109	.164
<i>Tree planting</i>	.4891	.449	.529
<i>Borehole drilling and maintenance</i>	.1042	.080	.129
<i>Cook baskets</i>	.1647	.135	.195
<i>Latrines</i>	.2840	.248	.320
<i>Model housing</i>	.0706	.050	.091
<i>Rubbish pits and dish racks</i>	.2487	.214	.284
<i>Other</i>	.0672	.047	.087
<i>I don't know</i>	.0151	.005	.025
<i>No response</i>	.0034	-.001	.008

42) Which URCS activities, if any, did you participate in? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Efficient cook stoves</i>	.3378	.300	.376
<i>Flood resistant housing</i>	.0807	.059	.103
<i>Tree planting</i>	.4319	.392	.472
<i>Borehole drilling and maintenance</i>	.0370	.022	.052
<i>Cook baskets</i>	.0605	.041	.080
<i>Latrines</i>	.3882	.349	.428
<i>Model housing (including rubbish pits and dish racks)</i>	.0521	.034	.070
<i>I did not participate in any URCS projects</i>	.0555	.037	.074
<i>I don't know</i>	.0739	.053	.095
<i>No response</i>	.0891	.066	.112

43) Which URCS activities, if any, have you continued? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Efficient cook stoves</i>	.1664	.136	.196
<i>Flood resistant housing</i>	.0319	.018	.046
<i>Tree planting</i>	.2336	.200	.268
<i>Borehole drilling and maintenance</i>	.0218	.010	.034
<i>Cook baskets</i>	.0387	.023	.054
<i>Latrines</i>	.1261	.099	.153

<i>Model housing (including rubbish pits and dish racks)</i>	.0252	.013	.038
<i>Other</i>	.0437	.027	.060
<i>I do not use any URCS projects</i>	.0706	.050	.091
<i>I don't know</i>	.0706	.050	.091
<i>No response</i>	.0840	.062	.106

44) To what extent do you feel the URCS activities have improved your life?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Not improved</i>	.1462	.118	.175
<i>Somewhat improved</i>	.3412	.303	.379
<i>Greatly improved</i>	.1496	.121	.178
<i>I don't know</i>	.0336	.019	.048
<i>No response</i>	.0050	-.001	.011

45) Do you feel that you have a role in ensuring that environmental resources you commonly use are protected for the community?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.9866	.977	.996

46) Have you participated in a disaster planning meeting in your community?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.7765	.743	.810
<i>I don't know</i>	.0134	.004	.023

47) Does your community have an evacuation plan? **If YES, what is that plan?**

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.4235	.384	.463
<i>I don't know</i>	.0487	.031	.066

48) Do you have any other preparedness plans? **If YES, what is this plan? (NAME)** _____

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.4336	.394	.474
<i>I don't know</i>	.0151	.005	.025

49) What encouraged you and your community to devise this plan? (CHECK ALL THAT APPLY)

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Family, friends, or neighbor</i>	.0756	.054	.097
<i>Community leaders</i>	.0874	.065	.110
<i>Local government</i>	.0538	.036	.072
<i>URCS</i>	.0824	.060	.105
<i>Other NGOs or CBOs</i>	.0252	.013	.038
<i>Religious institutions</i>	.0017	-.002	.005
<i>God</i>	.0202	.009	.031
<i>Other</i>	.0101	.002	.018

SECTION 6:

50) Who do you think is responsible for preparing for disasters and managing their impact?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Myself, family, friends, or neighbor</i>	.2605	.225	.296
<i>Community leaders</i>	.1160	.090	.142
<i>Local government</i>	.0857	.063	.108
<i>Police</i>	.0050	-.001	.011
<i>URCS</i>	.4118	.372	.451
<i>Other NGOs and CBOs</i>	.0756	.054	.097
<i>Religious institutions</i>	.0084	.001	.016
<i>God</i>	.0084	.001	.016
<i>I don't know</i>	.0185	.008	.029
<i>No response</i>	.0084	.001	.016

51) Are you aware of the CBDRR Group facilitated by the Uganda Red Cross Society?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.8118	.780	.843

52) Did you participate in electing leaders to the CBDRR Group?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Yes</i>	.5950	.555	.635
<i>I don't know</i>	.0084	.001	.016

53) Did the group keep you informed of activities?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.5832	.543	.623
<i>I don't know</i>	.1143	.089	.140

54) What group activities did you participate in?

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
<i>Educational meetings</i>	.2151	.182	.248
<i>First aid</i>	.0975	.074	.121
<i>Technical projects (e.g., building cook stoves, planting trees, drilling boreholes, etc.)</i>	.3950	.356	.434
<i>Other</i>	.0605	.041	.080
<i>I did not participate in any group activities</i>	.2538	.219	.289
<i>I don't know</i>	.0773	.056	.099
<i>No response</i>	.0622	.043	.082

55) Are there current activities by the CBDRR group that you participate in? **If YES, what are these activities?**

	Mean Difference	95% Confidence Interval of the Difference	
		Lower	Upper
Yes	.2101	.177	.243
<i>I don't know</i>	.0874	.065	.110
<i>No response</i>	.0067	.000	.013

Annex 2

Terms of Reference

American Red Cross

Terms of Reference for Sowdamini Saraswati

Background

The Uganda Red Cross Society in coordination with the American Red Cross implemented a 21-month Disaster Risk Reduction Project in 6 parishes in Katakwi and Amuria Districts, from January 2010 through September 2012. This project focused on community mobilizing/organizing, flood risk reduction and climate change adaptation.

This project was a pilot DRR project from which other DRR projects in the Africa region of the American Red Cross have been modeled after. Now, in the interest of strengthened DRR programming quality & learning the American Red Cross and Uganda Red Cross Society wish to conduct an ex-post project evaluation to examine the extent to which project outcomes and impacts have been realized through beneficiary ownership, lessons learned, promising practices and weaknesses to inform and facilitate advocacy for improved future DRR projects approach.

From June - August 2013, data in the form of household surveys, focus group discussions, and key informant interviews was collected by a junior researcher (Sowdamini Saraswati) for an ex-post evaluation of the disaster risk reduction project in Katakwi, Uganda.

The American Red Cross also conducted two baseline surveys in Uganda. Data collected for these evaluations requires further analysis and a final report to confirm the initial conditions of the project areas.

Location

Washington DC

Objective

The proposed contract aims to help the American Red Cross and Uganda Red Cross Society with analyzing data and writing the final report for the post project evaluation of a disaster risk reduction project in Katakwi, Uganda. Additionally, assistance will be provided to complete analysis and report writing for two separate baseline surveys that were conducted by the American Red Cross.

Specific areas of focus will include the following:

Establish extent to which development objectives of the project were attained.
Examine promising practices, lessons learned and areas for strengthening future project implementation.

Present recommendations to inform and facilitate improved DRR project design and implementation.

Deliverables:

Data analysis of information (household surveys, key informant interviews, and focus groups discussions) collected for the ex-post evaluation.

Draft ex-post evaluation report for American and Uganda Red Cross society input (soft copy).

Write a Final Ex-post evaluation report of acceptable quality (soft copy).

Write a Final Baseline evaluation report (1) of acceptable quality (soft copy).

Write a Final Baseline evaluation report (2) of acceptable quality (soft copy).

Annex 3

Instrument Tools

Household Survey

SECTION 1:

- 1) Are you the head of household?
 - a. 1 - YES
 - b. 2 - NO
 - c. 88 - I don't know
 - d. 99 - No Response

- 2) Who is the head of household?
 - a. 1 - Father
 - b. 2 - Mother
 - c. 3 - Grandparent
 - d. 4 - Spouse
 - e. 5 - Sibling
 - f. 6 - Child
 - g. 7 - Other _____
 - h. 88 - I don't know
 - i. 99 - No Response

- 3) What is your age? (IF UNDER THE AGE OF CONSENT, OBTAIN CONSENT FROM ADULT BEFORE PROCEEDING)

- 4) How many people reside in this household?

- 5) How many people under 16 reside in this household?

- 6) How many people in this household would need special assistance during a disaster?

- 7) What are your family's sources of livelihood? (CHECK ALL THAT APPLY)
 - a. 1 - Farming
 - b. 2 - Brick Making
 - c. 3 - Employment
 - d. 4 - Charcoal Burning
 - e. 5 - Fishing
 - f. 6 - Micro business
 - g. 7 - Casual labor
 - h. 8 - Other _____
 - i. 88 - I don't know
 - j. 99 - No Response

- 8) What sources of energy are used in your household? (CHECK ALL THAT APPLY)
 - a. 1 - Charcoal

- b. 2 - Solar
- c. 3 - Electricity
- d. 4 - Generator
- e. 5 - Wood
- f. 6 - Other_____
- g. 88 - I don't know
- h. 99 - No Response

9) What THREE natural resources does your household rely on most during daily life? Anything else?

- a. 1 - Trees
- b. 2 - Swamps/Wetlands
- c. 3 - Lakes/Rivers
- d. 4 - Wild plants and animals
- e. 5 - Land
- f. 6 - Other_____
- g. 88 - I don't know
- h. 99 - No Response

10) What is your primary use of these resources? (CHECK ALL THAT APPLY)

- a. 1 - Trees – charcoal
- b. 2 - Trees – construction
- c. 3 - Trees – firewood
- d. 4 - Trees – other IGA
- e. 5 - Wetlands – planting
- f. 6 - Wetlands – fishing
- g. 7 - Wetlands – Brick making
- h. 8 - Wetlands – other IGA
- i. 9 - Wetlands – fetching water
- j. 10 - Lakes/Rivers – fishing
- k. 11 - Lakes/Rivers – Irrigation
- l. 12 - Lakes/Rivers – transport
- m. 13 - Lakes/Rivers – fetching water
- n. 14 - Lakes/Rivers – Other IGA
- o. 15 - Wild plants/animals – food
- p. 16 - Wild plants/animals – herbal/medicinal
- q. 17 - Wild plants/animals – other IGA
- r. 18 - Land – pasture
- s. 19 - Land – agriculture
- t. 20 - Land – construction
- u. 21 - Land – renting
- v. 22 - Land – other IGA
- w. 88 - I don't know
- x. 99 - No Response

SECTION 2:

11) Has this community been affected by a disaster in the past 2 years?

- a. 1 - YES
- b. 2 - NO

- c. 88 - I don't know
- d. 99 - No Response

12) Which disasters has your community been affected by in the past two years? (CHECK ALL THAT APPLY)

- a. 1 - Flooding / Water logging
- b. 2 - Drought
- c. 3 - Fires
- d. 4 - War/Tribal Conflict
- e. 5 - Severe Weather
- f. 6 - Severe Wind
- g. 7 - Famine
- h. 8 - Disease Outbreaks
- i. 9 - Cattle Rustling
- j. 10 - Other _____
- k. 88 - I don't know
- l. 99 - No Response

13) Do you feel disasters are occurring more frequently in your community?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

14) Have you used information gained from the URCS program to make decisions to prepare for and cope with disasters?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

15) If YES, what changes have you made as a result of the URCS program? (CHECK ALL THAT APPLY)

- a. 1 - Planted drought resistant crops
- b. 2 - Planted early maturing crops
- c. 3 - Rationed food reserves
- d. 4 - Sold assets
- e. 5 - Purchased extra food to store
- f. 6 - Migrated to another area
- g. 7 - Built flood resistant shelter(s)
- h. 8 - Built and used efficient cook stoves
- i. 9 - Drilled boreholes and contributed to maintenance
- j. 10 - participated in community groups to reduce risks
- k. 11 - Other _____
- l. 88 - I don't know
- m. 99 - No Response

16) Have you noticed any changes in rainfall amount and/or temperature in your community?

- a. 1 - YES
- b. 2 - NO

- c. 88 - I don't know
- d. 99 - No Response

17) If yes, what changes have you seen? (CHECK ALL THAT APPLY)

- a. 1 - More rainfall
- b. 2 - Less rainfall
- c. 3 - Higher Temperatures
- d. 4 - Lower Temperatures
- e. 88 - I don't know
- f. 99 - No Response

18) Do you receive disaster warnings?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

19) Who do these warnings come from? Anyone else? (CHECK ALL THAT APPLY)

- a. 1 - Family/Friends/Neighbors
- b. 2 - Local Government
- c. 3 - Police
- d. 4 - Uganda Red Cross Society
- e. 5 - Other NGOs/CBOs
- f. 6 - Religious Institutions
- g. 7 - Other_____
- h. 88 - I don't know
- i. 99 - No Response

20) How do you receive these warnings? Any other way? (CHECK ALL THAT APPLY)

- a. 1 - Radio
- b. 2 - Messenger
- c. 3 - Phone
- d. 4 - Newspaper
- e. 5 - Flyer/Poster
- f. 6 - Household visit
- g. 7 - Community meeting
- h. 8 - Other_____
- i. 88 - I don't know
- j. 99 - No Response

21) For you and your family, how important are disaster warnings in helping you respond to disasters?

- a. 1 - Not important
- b. 2 - Somewhat important
- c. 3 - Very important
- d. 88 - I don't know
- e. 99 - No Response

22) In the past six months, have you received any information regarding how to plan for future disasters in order to reduce their impact?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

23) If YES, who did you receive this information from? Anyone else? (CHECK ALL THAT APPLY)

- a. 1 - Family/Friends/Neighbors
- b. 2 - Local Government
- c. 3 - Police
- d. 4 - Uganda Red Cross Society
- e. 5 - Other NGOs/CBOs
- f. 6 - Religious Institutions
- g. 7 - Other_____
- h. 88 - I don't know
- i. 99 - No Response

24) Do you feel that you and your family are currently prepared for a disaster?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

25) If NO, what type of support do you think you need to become prepared for a disaster? (CHECK ALL THAT APPLY)

- a. 1 - Food
- b. 2 - Non-food items
- c. 3 - Medical assistance
- d. 4 - Evacuation plan
- e. 5 - Education on how to reduce the risk of future disasters
- f. 6 - No support
- g. 7 - Other_____
- h. 88 - I don't know
- i. 99 - No Response

26) Do you feel the community is currently prepared for a disaster?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

27) In the past 2 years, have you received [climate] forecast information?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

28) If YES, who have you received forecast information from? (CHECK ALL THAT APPLY)

- a. 1 - Family/Friends/Neighbor
- b. 2 - Community leaders
- c. 3 - Local government

- d. 4 - Police
- e. 5 - Uganda Red Cross Society
- f. 6 - Other NGOs or CBOs _____
- g. 7 - Church/Temple/Mosque
- h. 8 - God
- i. 9 - No one
- j. 10 - Other _____
- k. 88 - I don't know
- l. 99 - No Response

29) Have you used forecast information to make decisions?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

30) If YES, how have you used forecast information to make decisions? (CHECK ALL THAT APPLY)

- a. 1 - Planted resistant crops
- b. 2 - Planted early maturing crops
- c. 3 - Rationed your food reserves
- d. 4 - Sold your assets
- e. 5 - Purchased extra food to store
- f. 6 - Migrated to another area
- g. 7 - Built flood resistant shelter(s)
- h. 8 - Other _____
- i. 88 - I don't know
- j. 99 - No Response

SECTION 3:

31) Do you feel that your family knows what to do if a disaster occurs?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

32) What would your family do in the case of a disaster? Anything else? (CHECK ALL THAT APPLY)

- a. 1 - Gather at a predetermined meeting point
- b. 2 - Seek help from a neighbor
- c. 3 - Provide help to a neighbor
- d. 4 - Protect your assets
- e. 5 - Protect your house
- f. 6 - Ration your food reserves
- g. 7 - Seek help from NGO/CBO
- h. 8 - Seek help from government
- i. 9 - Seek help from church/temple/mosque
- j. 10 - Stay with your house/assets
- k. 11 - Search for family/friends
- l. 12 - Evacuate
- m. 13 - Other _____

- n. 88 - I don't know
- o. 99 - No Response

33) Is anyone in your family trained in First Aid?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

34) If YES, who did they receive training from? (CHECK ALL THAT APPLY)

- a. 1 - Family/Friends/Neighbor
- b. 2 - Community leaders
- c. 3 - Local government
- d. 4 - Police
- e. 5 - Uganda Red Cross Society
- f. 6 - Other NGOs or CBOs _____
- g. 7 - Church/Temple/Mosque
- h. 8 - God
- i. 9 - No one
- j. 10 - Other _____
- k. 88 - I don't know
- l. 99 - No Response

35) Does your community have people trained in First Aid to treat the injured?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

36) Do you feel that the most vulnerable families in your community are identified and supported during a disaster?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

37) Who do you alert if you need information or help during a disaster? Anyone else?

- a. 1 - Family/Friends/Neighbor
- b. 2 - Community leaders
- c. 3 - Local government
- d. 4 - Police
- e. 5 - Uganda Red Cross Society
- f. 6 - Other NGOs or CBOs _____
- g. 7 - Church/Temple/Mosque
- h. 8 - God
- i. 9 - No one
- j. 10 - Other _____
- k. 88 - I don't know
- l. 99 - No Response

38) How do you contact these people during a disaster? Any other way?

- a. 1 - Messenger
- b. 2 - Phone
- c. 3 - Letter
- d. 4 - Direct visit
- e. 5 - Other_____
- f. 88 - I don't know
- g. 99 - No Response

39) Does your community meet to discuss disaster planning?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

SECTION 4:

40) Are you aware of URCS activities in your community undertaken to reduce the impact of future disasters?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

41) If YES, which activities are you aware of? (CHECK ALL THAT APPLY)

- a. 1 - Efficient cook stoves
- b. 2 - Flood Resistant Housing
- c. 3 - Tree planting
- d. 4 - Borehole drilling and maintenance
- e. 5 - Cook baskets
- f. 6 - Latrines
- g. 7 - Model housing
- h. 8 - Rubbish pits and dish racks
- i. 9 - Other_____
- j. 88 - I don't know
- k. 99 - No Response

42) Which URCS activities, if any, did you participate in? (CHECK ALL THAT APPLY)

- a. 1 - Efficient cook stoves
- b. 2 - Flood Resistant Housing
- c. 3 - Tree planting
- d. 4 - Borehole drilling and maintenance
- e. 5 - Cook baskets
- f. 6 - Latrines
- g. 7 - Model housing (including rubbish pits and dish racks)
- h. 8 - Other_____
- i. 9 - I did not participate in any Uganda Red Cross Society projects
- j. 88 - I don't know
- k. 99 - No Response

43) Which URCS activities, if any, have you continued? (CHECK ALL THAT APPLY)

- a. 1 - Efficient cook stoves
- b. 2 - Flood Resistant Housing
- c. 3 - Tree planting
- d. 4 - Borehole drilling and maintenance
- e. 5 - Cook baskets
- f. 6 - Latrines
- g. 7 - Model housing (including rubbish pits and dish racks)
- h. 8 - Other _____
- i. 9 - I do not use any Uganda Red Cross Society projects
- j. 88 - I don't know
- k. 99 - No Response

44) To what extent do you feel the URCS activities have improved your life?

- a. 1 - URCS activities have NOT improved my life
- b. 2 - URCS activities have SOMEWHAT improved my life
- c. 3 - URCS activities have GREATLY improved my life
- d. 88 - I don't know
- e. 99 - No Response

SECTION 5:

45) Do you feel that you have a role in ensuring that environmental resources you commonly use are protected for the community?

- a. 1 - YES
- b. 2 - NO

46) Have you participated in a disaster planning meeting in your community?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

47) Does your community have an evacuation plan? **If YES, what is that plan?**

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

48) Do you have any other preparedness plans? **If YES, what is this plan? (NAME)** _____

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

49) What encouraged you and your community to devise this plan? (CHECK ALL THAT APPLY)

- a. 1 - Family/Friends/Neighbor
- b. 2 - Community leaders
- c. 3 - Local government
- d. 4 - Police

- e. 5 - Training by Uganda Red Cross Society
- f. 6 - Other NGOs or CBOs_____
- g. 7 - Church/Temple/Mosque
- h. 8 - God
- i. 9 - No one
- j. 10 - Other_____
- k. 88 - I don't know
- l. 99 - No Response

SECTION 6:

50) Who do you think is responsible for preparing for disasters and managing their impact?

- a. 1 - Myself/Family/Friends/Neighbor
- b. 2 - Community leaders
- c. 3 - Local government
- d. 4 - Police
- e. 5 - Uganda Red Cross Society
- f. 6 - Other NGOs or CBOs_____
- g. 7 - Church/Temple/Mosque
- h. 8 - God
- i. 9 - No one
- j. 10 - Other_____
- k. 88 - I don't know
- l. 99 - No Response

51) Are you aware of the CBDRR Group facilitated by the Uganda Red Cross Society?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

52) Did you participate in electing leaders to the CBDRR Group?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

53) Did the group keep you informed of activities?

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

54) What group activities did you participate in?

- a. 1 - Educational meetings
- b. 2 - First Aid trainings
- c. 3 - Technical projects (building cook stoves, planting trees, drilling boreholes, etc.)
- d. 4 - Other _____
- e. 5 - I did not participate in any group activities
- f. 88 - I don't know

g. 99 - No Response

55) Are there current activities by the CBDRR group that you participate in? **If YES, what are these activities?**

- a. 1 - YES
- b. 2 - NO
- c. 88 - I don't know
- d. 99 - No Response

Key Informant List

<i>Name</i>	<i>Title</i>	<i>Parish</i>
Edeu Vicent	Parish Support Person	Amolo
	LC2	Amolo
	LC3	Amolo
Edmond Okwii	Sub-County Chief	Kapujan
	(Current) Parish Chief	Kapujan
	LC2	Kapujan
Malinga Vincent	Parish Support Person	Kapujan
Opio	LC2	Wera
Odeke Christopher	Parish Support Person	Wera
Harriet Ruth	Head Teacher	Wera
Kosa Paul	Former Branch Manager (First)	None - Red Cross
Abud Nasser	Former Branch Manager (Second)	None - Red Cross
Joseph Olwenyi	Former Project Officer	None - Red Cross
	LC2	Sugur
	LC2	Kokorio
	LC2	Orimai

Key Informant Questionnaire - Community Members

- 1) Is there a local government department or person responsible for managing disasters? Is there a regional government department or person responsible for disaster management?
 - a. If YES, what is the name of the department/person? Does the community work with this department/person?
 - b. If NO, who was in charge of the last disaster?
 - c. If UNSURE, get contact of someone who might know.
- 2) In what way is the community involved in disaster management in this community? Does the community meet with the local government to discuss issues around disasters?

Response	
Yes	
No	

- a. If YES, how often are the meetings? Who attends the meetings? What topics are discussed? Who leads the meetings?
 - b. If NO, do you have plans to meet?
- 3) Can you describe what type of access you have to forecast information? How is this information made available to communities? Does the community incorporate forecasting into disaster management?
- 4) Is there a written disaster preparedness plan for the community? Can you describe the components of this plan?
 - a. If NO, do you feel a plan is needed? What challenges do you face in creating one?
- 5) Do you think there is adequate dialogue and coordination between community groups and different government levels in disaster risk reduction? Can you explain how these groups coordinate?
- 6) Thinking about other NGOs who are active in the community, in what ways do you think they have contributed in reducing risk for the community?
- 7) In what ways, if any, did they URCS project improve the coordination between these groups?
- 8) Was there a risk analysis done since the Red Cross project ended to identify current risks and hazards in the community?

Response	
Yes	
No	

- a. If YES, what are the disaster risks? How was the risk analysis done? Is there any documentation of this risk analysis?
 - b. If NO, is there a plan to do any community risk analysis/hazard mapping? If not, what are the reasons?
- 9) What type of warnings does the community receive before potential disasters? Who generates the warnings?
- 10) How is the information about upcoming disseminated? Is this process ever tested? How often? How does this system vary for each hazard?
- 11) How is information about disaster risks disseminated through the community?

- 12) What role do you think the URCS project played in spreading information about disaster risks and how to reduce risk?
- 13) How did the URCS project improve the capacity of the community to withstand a disaster?
- 14) What activities has the community done since the URCS project to reduce disaster risk? At what level were these projects done?
- 15) What lessons or knowledge from the Red Cross project have been included in school curriculums?
- 16) How have youth been involved in disaster risk reduction activities? Do you think community youth have enough disaster risk reduction knowledge? What is your opinion regarding the inclusion of disaster risk reduction lessons in school curriculums?
- 17) Would you say that the community has people who are trained in First Aid that can treat injured people?

Response	
Yes	
No	

- a. If YES, how are they organized? Who did they receive their training from?
- 18) What structured projects does the community or government undertake to reduce the risk of disasters?
- 19) Which URCS projects were most effective in the community? Has the community adapted any of the projects for different uses?
- 20) Have families used any of the URCS projects to create income since the Red Cross program ended?
- 21) Overall, how would you describe the community's preparedness for disasters?
- 22) If you are familiar with communities that did not participate in the URCS program, what differences in resilience and capacity do you see between communities that participate in the URCS program and those that did not?
- 23) How would you describe the capacity of the local government to deal with disasters?

Key Informant Questionnaire - Program Staff

- 1) In what capacity were you involved with the URCS DRR project?
- 2) What training and guidance did you receive in order to perform effectively in this role (URCS HQ, ARC, other) ? What challenges did you face?

3) Did your role or involvement with the project change over time?

Response	
Yes	
No	

a. If YES, how do you think this affected the project?

- 4) Which other staff positions do you think had a key role in the implementation of the project? How would you describe performance of these other staff (your colleagues) in delivering the project?
- 5) What support did the project receive from the national office? In your opinion, was there enough communication and support from the national office? How could this have been improved?
- 6) How would you characterize the relationship of the URCS with the CBDRR groups in the project (please try to give specific examples)?
- 7) Which groups had the strongest relationship with URCS? Which ones had the weakest? What factors do you think contributed to this dynamic?
- 8) What effect do you think the role of the focal person had on the relationship between URCS and the CBDRR groups?
- 9) Do you think the CBDRR groups were effective in reducing disaster risk in their communities?
- 10) How do you think the CBDRR groups could be made stronger and more effective?
- 11) How were communities involved in selection of micro projects implemented? Do you think the communities were in consensus about the micro-projects? How else could the micro-projects been selected?
- 12) How effective were the micro-projects in reducing risks/ hazards in this community?
- 13) Since the end of the project, what activities have the communities continued to undertake?
- 14) Are there other agencies or groups in the area who are also involved in reducing risk in this area? How would you compare their performance with the Red Cross work
- 15) What would you characterize as the most effective aspects of the project? What factors do you think contributed to the efficacy of these?
- 16) In what ways has the design or implementation of the Katakwi DRR project influenced URCS priorities and the design of similar URCS projects?
- 17) What lessons did you take from working with this project that you think are applicable to other URCS projects?

Focus Group Discussions - General

1) Do you remember the URCS project?

Response	Number
Yes	
No	

2) Did you participate in any of the project activities?

a. If YES, which activities did you participate in? (**RECORD RESPONSES IN TABLE BELOW**)

Response	Number
Lorena cook stoves	
Flood resistant housing	
Borehole drilling and maintenance	
Model housing	
Tree planting	
Cook baskets	
Latrines	
Rubbish pits and dish racks	

b. If NO, why didn't you participate?

3) Which activities were most beneficial to you? What types of benefits did you get from the projects?

4) Which activities have you continued to use? Have you changed or improved any of these activities since 2011? How have you changed them?

5) Have you used any of these activities to generate income for you or your family? (**RECORD RESPONSES IN TABLE BELOW**)

Response	Yes	No
Lorena cook stoves		
Flood resistant housing		
Borehole drilling and maintenance		
Model housing		
Tree planting		
Cook baskets		
Latrines		
Rubbish pits and dish racks		

6) What types of activities do you think would generate income for your household and also help reduce your disaster risk? How could they build on the URCS projects?

- 7) What activities has the community done since the URCS project to reduce disaster risk? At what level were these projects done? Who did these projects?
- 8) How were you involved in any risk or hazard mapping activities in the community? Are the risk or hazard maps accessible to you? How are these maps used within your community?
 - a. What was the role of the URCS, community groups, other development agencies, and yourselves in creating the maps?
- 9) How did the activities you participated in reduce disaster risk (careful of this term) in your household and community?
- 10) In what ways does the community get information in the case of a disaster or a risk?
 - a. What was the role of URCS, community groups, other development agencies, and yourselves in setting up these systems? Have these systems helped reduce your risk? (PROBE FOR EXAMPLES OF EWS USE IN RECENT DISASTERS)
 - b. How could these systems be improved?
- 11) What activities currently focus on risk reduction in your community? How are you involved in these activities?
- 12) What is the role of the CBDRR group in your community? (DURING THE PROJECT AND CURRENTLY)
 - a. How do you participate in project activities alongside the CBDRR group? (DURING THE PROJECT AND CURRENTLY). What do you think the purpose of these activities was?
 - b. In what ways could your participation in these activities be enhanced?
- 13) How have the following groups been involved in risk reduction activities in your community:
 - a. local leadership
 - b. district level leadership
- 14) What more could local, district, and regional groups do to support disaster risk reduction? What about schools and churches?
- 15) What challenges specific to your gender (as men) do you face in when it comes to disasters in your community?
- 16) Do you think that men and women participated equally (differently) in the implementation of the project? (IN TERMS OF TIME, NUMBER OF PARTICIPANTS, LEVEL OF EFFORT).

Response	Number
Yes	
No	

- a. If YES, what allowed for this equal involvement?
- b. If NO, what prevented equal involvement? How could this be remedied in future projects?

17) Did you feel that you had the resources and support you needed from the URCS to be effective in the project? How was the Red Cross best able to support you in these activities? How could the Red Cross have better supported you in the project activities?

18) In what ways did you adapt/use the projects so that they would better suit your needs as men?

19) What kind of benefits did the URCS project have for you as men?

20) In the future, what types of risk reducing activities do you think would be most beneficial to men in the community?

21) Have you noticed changes in the number or type of disasters that affect your community?
(RECORD RESPONSES IN THE TABLE BELOW)

Response	Number
Yes	
No	

22) Do you think youth are well educated about disaster risks? Who do you think is best educated in disaster risk reduction (men, women, older people, etc.)? Why? (PROBE FOR LEVEL OF KNOWLEDGE ABOUT RISK ,RESPONSE, ETC).

23) Do you think any lessons from the URCS project have been included in school lessons?

Response	Number
Elementary	
Junior High School/ Middle School	
High School	
University	

24) If you are familiar with communities that did not participate in the URCS program, what differences in resilience and capacity do you see between communities that participate in the URCS program and those that did not?

25) In your opinion, which groups do you think were not able to participate in the project? Why do you think this was the case?

Focus Group Discussions - CBDRR Groups

1) Why was the group formed?

- 2) How was the group (process) formed?
- 3) What was the role of the URCS program staff? Community members? Other actors in the community? Local government?
- 4) What are your opinions about the selection process for the members of the group?

a. Did the selection process allow for representation of men, women, and youth?

Response	Number
Yes	
No	

b. What would you do to improve the process of forming the group?

- 5) Did you have enough support from the URCS through the formation of the group and the selection of members? What type of support did you have?

a. If NO, how could the URCS have better supported the groups? What types of support would have been beneficial?

- 6) Describe some of the activities you were engaged in during the project period and currently. (PROBE FOR EXAMPLES AND NUMBERS)

- 7) How were community members engaged in reaching the decision on which micro-projects to implement?

a. What most influenced the selection of the projects?

- 8) What was the role of the URCS in the decisions about which micro-projects were implemented?

- 9) Do you think the group was able to successfully engage the community to determine which activities would be most beneficial?

a. If YES, what allowed the group to successfully engage the community? How did URCS support the group in ensuring successful community engagement?

b. What advice do you have for other CBDRR groups to improve community engagement? What about for the URCS?

- 10) What hazards did the micro-projects that were implemented address in the community?

a. What other hazards affect the community?

b. What has the group or the community done to address these hazards?

- 11) Do you think that the projects you selected reduced disaster risk?

Response	Number
Yes	
No	

- a. If YES, which projects MOST reduced the effects of disasters? Which projects LEAST reduced disaster risk?
 - b. If NO, what projects do you think would have reduced the effects of disasters? Why?
- 12) When implementing the projects, did the group do all of the work itself or did the community also help implement the projects? Why?
- 13) What challenges did you experience when selecting the micro-projects? When implementing the micro-projects?
- 14) What worked well in the selection of the micro-projects? What about in the implementation of the micro-projects?
- a. What strengths or capacities did the group have that helped it be successful in implementing the projects?
- 15) Would you say that the group was successful in reducing the overall effects of disasters in the community?
- 16) What was the role of the URCS parish support person in group activities and the implementation of the micro-projects?
- 17) What was your relationship with the URCS parish support person?
- 18) In what ways did the URCS parish support person strengthen your relationship with the URCS? How did the parish support person support the group in implementing the project?
- a. What were the challenges in working with the parish support person? How did it affect your relationship with URCS? How did affect the implementation of the project?
- 19) What was your relationship with other CBDRR groups in the URCS project? How about currently?
- 20) What was your relationship with other development agencies? (For example: church groups, other NGOs, etc.) How about currently?
- 21) What was your relationship with local government? How about currently?
- 22) What was your relationship with the district government? How about currently?
- 23) How often does the group meet? When does it meet? What do you talk about when you meet?
- 24) What would be needed to make the group more active? What types of support would the group need?

25) How could the URCS have supported the group differently during the project period in order to make the group sustainable?

26) Do you have any final thoughts or comments about the CBDRR group?

Focus Group Discussions - Lorena cook stoves

1) Do you remember the URCS project? **(RECORD RESPONSES IN TABLE BELOW)**

Response	Number
Yes	
No	

2) Did you participate in any of the project activities? **(RECORD RESPONSES IN TABLE BELOW)**
 a. If YES, which activities did you participate in?

Response	Number
Lorena cook stoves	
Flood resistant housing	
Borehole drilling and maintenance	
Model housing	
Tree planting	
Cook baskets	
Latrines	
Rubbish pits and dish racks	

3) Which activities were most beneficial to you? What types of benefits did you get from the projects?

4) Which activities have you continued to use? Have you changed or improved any of these activities since 2011? How have you changed them?

5) What is the role of the CBDRR group in your community? **(DURING THE PROJECT AND CURRENTLY)**

a. How do you participate in disaster risk reduction activities alongside the CBDRR group? **(DURING THE PROJECT AND CURRENTLY)**

6) What was the role of the URCS, the community groups, and yourselves in the decision to implement Lorena cook stoves?

7) What factors most influenced you in wanting to build a cook stove? Where did you first get the information about cook stoves?

- 8) How did the CBDRR group, URCS, and other community members help you in building the Lorena cook stove?
- 9) How would you describe the building process? Was it easy to understand?
- 10) Have you had any problems with the stoves after they were built? Were you able to fix these problems yourself?
- 11) In what ways could the URCS or the CBDRR group have supported you better?
- 12) How many of you are still using the Lorena cook stoves? (**RECORD RESPONSE IN TABLE BELOW**)

Number

- a. If you are no longer using the Lorena cook stove, why are you no longer using it?

- 13) How did the URCS or the CBDRR group explain the benefits of using the cook stove?
- 14) Do you think the cook stove has saved you time in daily life? (**RECORD RESPONSES IN TABLE BELOW**)

Response	Number
Yes	
No	

- a. If YES, how has it saved you time? Did you expect this type of benefit when you first built the cook stove? What do you do with your new free time?
- b. If NO, why do you think the cook stove has not saved you time?

- 15) Do you think you are healthier because of using the cook stove? (**RECORD RESPONSES IN TABLE BELOW**)

Response	Number
Yes	
No	

- a. If YES, in what ways are you healthier? Did you expect this type of benefit when you first built the cook stove?

- 16) Do you think the cook stove has made you more prepared for a disaster? (**RECORD RESPONSES IN TABLE BELOW**)

Response	Number
Yes	

No	
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- a. If YES, in what ways has it reduced your disaster risk? Did you expect this type of benefit when you first built the cook stove?

17) Are there any other benefits you've had from using the Lorena cook stove? (for example, relationship with the family or friends)

18) Since building the cook stove, have you made any changes to the design or adapted it in any way? If YES, how?

19) Have you helped other people build cook stoves? ***(RECORD RESPONSES IN TABLE BELOW)***

Response	Number
Yes	
No	

- a. If YES, have others offered to pay you for helping them build a cook stove? Have you accepted payment?

20) Do you have any final thoughts or comments?