



# Vulnerability Assessments in Lira District, Uganda - Odike Alimokuc and Obanga ngeo

## GOALS OF THE PROCESS:

- Understand the links between local livelihoods and climate in Lira, Uganda
- Assess a project's impact on livelihood resources important for climate change adaptation
- Devise adjustments to improve a project's impact on these key livelihood resources

## OBJECTIVES FOR DISTRICT:

- Construction and protection of water access points, latrines and non-motorized boreholes
- Water and sanitation committee trainings
- Hygiene awareness sessions
- Coordinate forums on lessons learned and best practices

**PROJECT OVERVIEW:** Initial focus of the program in Uganda is on provision of improved water, sanitation and hygiene in Lira, Amuru and Gulu Districts where internally displaced peoples (IDPs) are settling and water/sanitation infrastructure is at a minimum. Program activities will involve working with District Disaster Management Coordinators, District Water Offices, local leadership and planning committees to identify sites for water and sanitation infrastructure and target interventions appropriately.

**THE PROCESS:** Using a combination of adaptation and participatory tools from Climate Vulnerability and Capacity Analysis (CVCA) project managers are able to obtain information on the regional, ecological and country-wide climate context for the project area. The Community-based Risk Screening Tool: Adaptation and Livelihoods (CRiSTAL) can then be utilized as a decision-support tool to analyze the vulnerability assessment information gathered using CVCA. The process integrates climate change adaptation into community-level projects, as well as identifies adaptation actions that can improve resilience to climate related hazards (i.e. droughts and floods).

**IN LIRA:** Over the past 20 years, civil unrest and wars have caused insurgencies in much of northern Uganda, resulting in more than 1.7 million people moving to internally displaced people's (IDPs) camps. This displacement has forced civilian populations to abandon their homes and has created unsanitary conditions in the overcrowded IDP camps. The main goal of the program in Uganda is to see improved access to safe water and improved hygiene/sanitation practices through work with District Disaster Management Coordinators, District Water Offices, local leadership and planning committees to identify sites for water and sanitation infrastructure and target interventions appropriately.



**IMPACT TO LIVELIHOOD RESOURCES—ODIKE & OBANGA:** Within Odike and Obanga communities floods have the greatest impact across multiple sectors of livelihood resources, with the most significant impacts seen on water resources, good health and food storage facilities. Drought shows the greatest impacts to natural resources (such as water and land), with some important impact also being seen on farmer groups and liquid assets. Strong winds appear to have less influence on the community and livelihood resources, with the greatest impacts in areas of natural resources (land, water and forest products), as well as agricultural skills and food storage facilities.

**IMPORTANCE OF LIVELIHOOD RESOURCES ON COPING STRATEGIES:** Land and good health were the most significant livelihood resources seen to impact the ability of the current on proposed coping strategies to be successful. Additionally, natural resource were a continuing theme in the identified importance of livelihood resources on success of coping strategies.

**ABOUT GWI:** The Global Water Initiative (GWI) addresses the declining state of the world's fresh water supply and the lack of access to clean water services by the world's poorest people. It brings together the talents and experiences of seven leading international organizations—Action Against Hunger-USA, CARE, Catholic Relief Services (CRS), International Union for Conservation of Nature (IUCN), International Institute for Environment and Development (IIED), Oxfam America and SOS Sahel UK—to work out effective solutions.

The creation of the GWI comes at a time when more than one billion people lack access to improved water sources and more than 2.6 billion people lack adequate sanitation.

# Overview of Results

**TABLE 1—Summary of Climate Hazards, their Impacts and Coping Strategies for Odike and Obanga**

Hazard	Impact	Current Coping Strategy	Alternative Coping Strategy
Drought	Famine	Food rationing	Alternative income generating activities
	Water shortage	Using alternative water sources	Drilling boreholes
	Low crop yield	Cultivating wetlands	Irrigation
Floods	Waterborne diseases	Use of traditional medicine, modern medicine and vaccinations	Traditional medicine
	Destruction of houses	Relocating to higher ground	Improving building design
	Famine	Planting early-maturing crops	Improve food storage
Strong Winds	Destruction of houses	Reconstruction of houses	Planting wind breaks
	Destruction of crops	Buying food	Promoting agro forestry
	Airborne diseases	Going to hospital	Traditional medicine

**TABLE 2—Summary of Key Livelihood Resources for Odike and Obanga**

Natural Resources	Physical Resources	Financial Resources	Human Resources	Social Resources
<ul style="list-style-type: none"> <li>- Water</li> <li>- Land</li> <li>- Forest products (trees)</li> </ul>	<ul style="list-style-type: none"> <li>- Farm tools (hoes and ploughs)</li> <li>- Bicycles</li> <li>- Food storage facilities</li> </ul>	<ul style="list-style-type: none"> <li>- Liquid assets (chickens, goats, produce, etc.)</li> <li>- Market transactions</li> <li>- Community savings</li> </ul>	<ul style="list-style-type: none"> <li>- Traditional knowledge (ability to predict seasons)</li> <li>- Agricultural skills</li> <li>- Good health</li> </ul>	<ul style="list-style-type: none"> <li>- Farmer groups</li> <li>- Marwa groups</li> <li>- Church groups</li> </ul>

## WAY FORWARD:

Many of the existing and future activities in the GWI project area will be impacted by climate change. Tree planting in school can be affected by drought due to drying of planted seedlings, or flooding can wash away the planted seedlings. Drought will lower the ground water table resulting in shallow well construction being more expensive, and overabstraction from deep boreholes. Soils may become heavy and collapse during latrine construction if the area is flooded and drought will require the latrine to be dug deeper. Access and damage to facilities from flooding and strong winds may affect the ability to train personnel or to establish school sanitation clubs. Other activities may be affected such as initiation of irrigation programs, construction of Ecosan toilets, cattle troughs and traditional latrines.

Revised project activities were derived from the vulnerability assessment process and focused on how to improve interventions in the face of the climatic hazards identified such as flooding, drought and strong winds. Adjustments on existing and future actions include improving housing design and drainage. Planting trees for protection of home and crops and careful selection of tree species will assist as well. Siting of boreholes, cattle troughs and latrines above flood heights will protect these improvements. Agro-forestry may prove effective in crop protection and crops near water points can be surrounded by fence. Training of water user committees will aid in the proper timing of other activities such that labor is available and activities occur when most beneficial.

Future activities would benefit from developing workplans together with various partners such as the district government and other stakeholders to improve ownership and involvement. Climate change studies could be conducted to guide future projects. Development of a multi-disciplinary and integrated approach to project development will facilitate project modification such as including disaster risk reduction expertise. Demonstration projects preceding full scale activities will help to prevent failures as will incorporate feedback on project activities that need to be changed or done differently from the original project design. Finally, conservation of the watershed through approaches such as reforestation, rehabilitation of wetlands and riverbanks, and protection of water sources will improve the quantity and quality of water for multiple uses, provide sustained project success.

**ABOUT GWI EAST AFRICA:** The GWI program in East Africa has three strategic objectives (SO):

SO1: Good Governance Improved local and community governance and the enabling policy framework

SO2: Sustainable Multiple Uses of Water - Efficient, effective and equitable domestic and productive uses of water, sanitation, hygiene, and watershed management

SO3: Risk Management - Vulnerable rural communities and their environments have increased resilience to water-related shocks.

The vulnerability assessment is providing input to achieve SO3.

For more information on GWI Uganda contact Robert Kizito—[rkizito@ug.earo.crs.org](mailto:rkizito@ug.earo.crs.org); for information on GWI East Africa contact Jeff Gowa—[jgowa@care.org](mailto:jgowa@care.org)

Developing a summary of climate-related hazards, their impacts on the community and existing coping strategies for these hazards is crucial in developing a community adaptation strategy. Additionally, the efficacy and sustainability of each coping strategy must be determined in order to identify where progress can be made for sustainable adaptation. The main climate-related hazards, their impacts and key current coping strategies identified in Odike and Obanga are indicated in the **Table 1** to the left. Additionally, it is important to understand the key livelihood resources that are important to a community (or communities) in order to ensure those resources are considered for impacts of climate change. These can be seen for Odike and Obanga in **Table 2** to the



**The Global Water Initiative**

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