



Early Warning and Early Action model

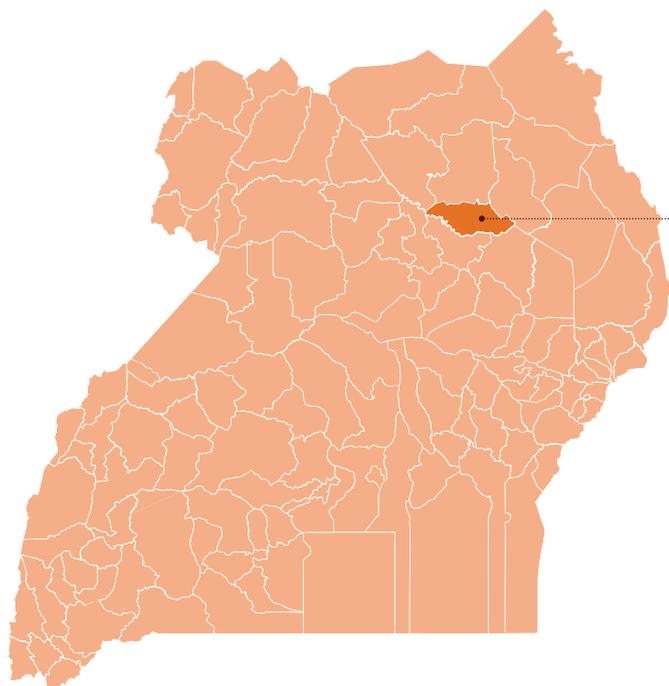
Case: Enhancing community resilience to climate change and disasters



PARTNERS FOR RESILIENCE
Working together on disasters, climate, ecosystems

Introduction

Time immemorial communities like the agro-pastoral communities of Otuke have interacted with their traditional environment and learned to study its behavior to predict and foretell weather and its changes. Knowing how to speak, feel, and listen to their environment guides them to decide what to do, when, why, with whom and how to do it much as they rarely explain why. This is their 'Indigenous way of weather forecasting'.



Otuke is located in the Lango sub-region in mid-Northern Uganda, bordering Abim district in the east.

The district receives about **1,300 mm** of rainfall per year, with unimodal rainfall pattern and average temperature of **23 °C**.

Driving through Otuke, the gradual change in vegetation to savannah grassland with scattered trees, typical of the semi-arid environment is glaring. Despite the evident and increasing incidences of rainfall variability, communities still plan and engage in agricultural activities as they have always done. Annual drought and flash floods compound crop failure, which in turn reduces the incomes available to the mostly agriculture-based households, increasing the risk of slumping deeper into poverty.

The Partners for Resilience program 2011-2020



From 2011, CARE started to implement the Partners for Resilience Strategic program (PfR). The PfR program is a global program implemented in an alliance. It is an alliance of humanitarian, development, climate and environment civil society organizations, composed of five Netherlands based members [CARE Netherlands, Catholic Organizations for Relief and Development Aid (CORDAID), the Netherlands Red Cross, the Red Cross Red Crescent Climate Centre, and Wetlands International] and their partner civil society organizations in the South. The alliance led by the Netherlands Red Cross in 2011-2015 focused on reducing the impact of hazards on vulnerable communities. It was implemented with a focus on three thematic approaches of Disaster Risk Reduction (DRR), Climate Change Adaptation (CCA) and Ecosystem Management and Restoration (EMR). From 2016-2020, the program focusses on Integrating Risk Management (IRM) in policies, investments and scaling up good practices from DRR, CCA and EMR (or IRM). These all aim at strengthening and protecting the livelihoods of vulnerable communities.

What did CARE's PfR I program do?

Funded by the Ministry of Foreign Affairs Netherlands through CARE Netherlands, CARE International in Uganda, as part of the CCA approaches in reducing the impact of hazards on the vulnerable communities, the program implemented the following activities:

- The program conducted two surveys. One on Climate Vulnerability Capacity Assessment (CVCA) and another simple survey by an alliance of ACCRA members to understand the context of the area of operation. Among findings were the use of indigenous weather forecasts as opposed to the scientific weather forecast.

The experiences shared by communities and stakeholders on receipt of weather information was not good! Communities and stakeholders did not appreciate the weather forecast. The Meteorology Department (MD) can say it will rain, and instead, it shines; as a result, the community loses trust in the weather forecasts. The terminologies used by MD were abstract to users, for instance **above normal, near normal, below normal**. These widened the gap between MD and expected the end-users. Communities instead preferred to use indigenous weather forecasts. The challenge became whether to continue disseminating the forecasts or go by community demands.

Key finding at Meteorology Department (MD)

- At the start of PfR in 2011, weather production and services were in the docket of the Meteorology Department under the Ministry of Water and Environment. The PfR team entered a partnership with MD to access and disseminate weather information to communities as an ingredient for planning and decision making to enhance resilience.
- The Meteorology Department was faced with challenges of limited funds, gaps in data collected, old and limited equipment, limitations in personnel in both capacity and numbers, limited mechanisms of dissemination, irregular release and dissemination of weather forecasts among others. These impaired effectiveness and quality of data produced, access, knowledge on weather information, and performance. As a result, there was distrust and discontent by stakeholders on weather forecasts released by MD. Some people did not want to hear anything about MD.

Interventions of PfR that contributed to improving quality and community buy in of UNMA weather forecasts?



Research

- Conducted survey on the timeliness of access, use, reporting, and reliability of the weather forecasted by the Meteorology Department and used the findings for advocacy aimed at upgrading MD. For example, the alliance recommended the Meteorology Department to become an Authority. The objective was to increase funding, which would, promote the upgrade of weather equipment, personnel capacities, and improve the quality of information.
- CARE and UNMA facilitated simple surveys with the community in Otuke and identified indigenous indicators (signs and signals) for weather forecasting. The same study created a relationship between the IK and scientific weather forecasts and shared with stakeholders including at CBA13 in Malawi



Partnership

- CARE entered memorandum of understanding with the Meteorology Department in order to have the alliance as well as OXFAM, World Vision, Save the Children and the Climate Change Resilience Alliance (ACCRA) disseminated quarterly weather forecasts to communities. Together, quarterly weather forecasts received from the Meteorology Department were disseminated to communities for use. The quarterly dissemination was also action research to track the performance of the forecasts by the alliance.



Tools that work

- Together with the ACCRA, the alliance members developed a simple monitoring tool for tracking the performance of quarterly weather forecast and submitted them to the Meteorology Department as feedback. Gradually, the gaps in the products started to be improved. The limitations in access by end-users, appropriateness to regions, types of products, and mechanisms of dissemination started to improve.



Coordination

- Conducted monthly coordination meeting between Meteorology Department, ACCRA members, Uganda Local Governments Association (ULGA) and Office of the Prime Minister (OPM) and Parliamentary Forum for Climate Change. Here information was shared, the performance of forecasts reviewed and feedback taken positively by MD.



Monitoring

- Conducted joint monitoring visits to project sites to learn with communities on weather products known, accessed, used, identify gaps and recommendations for improvement



Information sharing

- Conducted regular quarterly downscaling workshops at the national level with stakeholders after the GHACOF conferences. This helped review advisories for the country with multiple stakeholders.
- Participated in GHACOF conferences to enrich the design of advisories per sector by use of PfR and ACCRA program experiences
- Documented blogs, case stories and shared with a broader audience
- Scale-up adoption of the use of weather information from the Meteorology Department by other CARE and Implementing Partners' programs.
- Together with the ACCRA members, OPM, UNMA, Ministry of Local Government, ULGA, we developed National Master Climate Change Indicators for Uganda
- Facilitated UNMA to translate quarterly weather forecast in initially ten local languages and later to 20. The translated weather forecasted were distributed to communities over the radio through running programs of ACCRA alliance members, government and other stakeholders. The aim is to enable communities to improve the planning and implementation of agricultural and other sector activities.

Gains of investing in promoting timely access, use and reporting weather forecasts



- In 2012, the Act of Parliament raised the Meteorology Department to Uganda National Meteorological Authority.
- On 26th March 2014, the Ministry of Water and Environment inaugurated the UNMA board to stir UNMA as an independent authority to manage issues of meteorology and weather forecasting for Uganda. During the inaugural launch of the Meteorology Department to Uganda National Meteorological Authority, Michael Nkalubo, the Commissioner in the Ministry of Water and Environment said, the department was operating at 40%, (New Vision Reporter, 26th March 2014: Meteorology Department upgrades to Authority). The Authority has come at a time when the country is faced with many climatic change problem.
- The Hon Minister for Ministry of Water and Environment- Hon. Ibrahim Kamuntu is quoted for saying that meteorology services are so central for transformation and modernization.

- Upgrading them means reaching a level at which it can play a significant role.

“If you go out in the country, all the weather stations are old and outdated; if you look at the resource base it is old, but this Authority is intended to respond to the increasing demand for the accurate information regarding forecast and weather.”

- The frequency of disasters like Bududa landslides of 2012 and upgrade of Meteorology Department into Uganda National Meteorological Authority (UNMA) in 2012 started to attract stakeholders like WFP, UNDP) to improve quality of data produced and released by UNMA. They purchased and installed better equipment for weather and forecasting.
- UNMA established mini weather stations in selected districts including Otuke district.
- Capacity building for UNMA staff both in-country and abroad (masters in meteorology).
- Birth of new programme called WISER, replacing ACCRA and with focus on capacity building in dissemination and reporting. This has also included capacity building of district local governments (DLGs) as extension staff to UNMA.
- More stakeholders and agencies joined in translating quarterly weather forecast into additional local languages and disseminated.
- Wider dissemination including both long term and humanitarian programmes.
- Capacity building for districts as extension service providers to community on behalf of UNMA.

Challenges:

- Capacity gaps still exist in equipment and limited personnel.
- Limited coordination with lower local government to end users.
- Lack of independent budget at district for dissemination, monitoring and reporting performances.
- Delays in access of data by community.
- Limited research and training.
- Limited documentation of good cases, gaps and recommendations by stakeholders and UNMA.

Recommendations:

- Training for more stakeholders and particularly district local governments to act as extension service providers for UNMA data to community.
- Scaling up purchase and installation of equipment to collect and interpret data on weather forecast. Replace old equipment and upgrade the systems for analysis to modern technology for accurate data.
- Create targeted partnerships to include CSOs and private sector to complement UNMA tasks of down scaling, dissemination, monitoring and reporting.
- Need support from IGAD in producing products, monitoring trends, capacity development, reporting, research, documentation and knowledge management

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