

Enhancing the adaptive capacity of communities to climate change through IWRM, Mpanga Catchment of the Nile Basin in Uganda



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## Acronyms & abbreviations

ASAP	Adaptation Strategy and Action Plan
BMU	Beach Management Unit
CBIWRM	Catchment Based Integrated Water Resource Management
СС	Climatic Change
CCA	Climate Change Adaptation
СМС	Catchment Management Committee
СМО	Catchment Management Organization
CMP	Catchment Management Plan
СОР	Conferences of the Parties
СТС	Catchment Technical Committee
DWRM	Directorate for Water resource Management
MWE	Ministry of Water and Environment
EIA	Environmental Impact Assessment
IK	Indigenous knowledge
IWRM	Integrated Water resource Management
JESE	Joint Effort to Save the Environment
LAGBIMO	Lake George Basin Integrated Management Organization
MOU	Memorandum Of Understanding
MMU	Mountains of the Moon University
MWE	Ministry of Water and Environment
NBI	Nile Basin Initiative
NWSC	National Water and Sewerage Corporation
PSC	Program Steering Committee
RCA	Association of the Rwenzori Community
TSU	Technical Support Unit
UWASNET	Ugandan Water and Sanitation Network
UWP	Ugandan Water Partnership
WAP	Water Action Plan
WRM	Water Resource Management
WMZ	Water Management Zone



#### Figure 1: Project maps



## 1.0 Project summary

The Project - supported by UNEP - was implemented in the upper Nile Basin, in Uganda. The Mpanga catchment where activities were rolled out is part of the Lake George Basin / The Lake Albert Water Management Zone and is located in the west of the country. This Mpanga catchment has an estimated surface of approx.4700 km<sup>2</sup>, and is characterized by a diversity of landscapes and high ecological significance. The area stretches over the territory of these 3 Districts.

A pilot program on Climate Change Adaptation took place at the end of 2011 until end of 2012. The program focused on improved water management as a tool for Climate Change Adaptation and was based on previous efforts that had been done by PROTOS and the Directorate for Water Resource Management (DWRM), known as one of the main National IWRM pilots. This IWRM pilot had been set up since 2006 and has been used as an input in the current National Policy on Catchment Based Water Resource Management.

With the support of UNEP, aspects of adaptation were integrated in the ongoing efforts which created the opportunity to evaluate this new policy on its relevance to help come up with field intervention to increase the adaptation capacity of communities.

The project was executed in a partnership between UNEP, the Ugandan Ministry of Water and Environment (DWRM) and PROTOS. Field activities were identified, planned and implemented with involvement of local stakeholders (such as local leaders) and with support of other local implementing partners (NGOs and CBOs). In accordance with the program proposal the activities included different aspects:

# Assessment on Climate Change Adaptation

An assessment was conducted within the catchment including an inventory on current ecosystem related adaptation issues. The assessment was done at an overall level and 8 specific zones (hot spots) were identified where more in detail work was done. The result of the assessment has completed the water resource analysis that was done in the past. This has allowed integrating adaptation related issues in the Catchment Management Plan (CMP) for the Mpanga catchment. The assessment was performed by the Mountains of the Moon University with capacity support and coordination from PROTOS.

#### Sensitization

Sensitization campaigns on improved water management in general, and Climate Change

Adaptation specific were set up within the catchment at different levels. First a tool was developed for community sensitization using the mobile cinema approach. In this program, communities were shown a documentary that contains testimonies of different water users within the catchment. During and after these sessions community members were enabled to provide input and comments in order to capture their knowledge and experience. The tool for organizing the mobile cinema was developed by KRC (the Kabarole Research and Resource Centre) and field work was done by Joint Effort to Save the Environment, The Association of the Rwenzori Community and Tooro Botanical Gardens.

Different meetings were held with key stakeholder representatives and especially local government. During these meetings –next to the planning and identification activities – a lot of emphasis was given to sensitization.

A program for sensitization within schools was rolled out within the catchment. The sensitization was done using a tool that was specifically developed for this purpose. The field work was done by a local organization called The Association of the Rwenzori Community.

#### **Capacity building**

Trainings were organized on Climate Change Adaptation and tools for representatives of different stakeholders, including local government were developed. The training was organized by PROTOS and facilitated by consultants.

#### Integrated action planning

A lot of emphasis was put on the integrated planning for action and especially the involvement of local communities. As a follow up of community sensitization sessions, local action plans were made at community level. This process was facilitated by Joint Effort to Save the Environment who developed

With the support of UNEP, aspects of adaptation were integrated in the ongoing efforts which created the opportunity to evaluate this new policy on its relevance to help come up with field intervention a specific tool for this work. These micro action plans were bundled per District and, based on an evaluation of the different proposed actions; priorities were selected to be implemented and/or piloted within this program.

At a higher level the micro catchment plans that were proposed by the communities were brought together in an overall action plan for the catchment. This Catchment Management Plan (CMP) includes next to these micro catchment plans proposals for up scaling of successful pilots, enlarged initiatives for awareness and sensitization campaigns, proposal for new pilots etc. The CMP was a product of the partnership between PROTOS and the DWRM and is currently one of the first CMP put in practice within Uganda that is in line with the new community based IWRM policies.

#### **Piloting**

As mentioned above, different pilot programs were rolled out. These pilots were mainly steered by the Districts and their relevant departments under coordination and supervision of PROTOS and the DWRM. The activities related to:

- Tree planting for restoration of degraded ecosystems;
- Tree planting for river bank protection;
- Introduction of new species that provide anti erosion advantages and are less dependent on rain patters (improved mango trees, wild coffee;
- Anti-erosion measures (restore of sliding footpaths, terracing demos sites);
- Improved waste management in urban areas;
- Collaborative wetland management practices (fishpond and restocking of fish);
- Riverbank protection by demarcation of limited access areas;

#### Data management

All outputs of the program are documented by reports and a 30 minute DVD documentary was made. The geographical data produced during the program was supposed to be converted into GIS maps that were accessible on remote. Due to delay in the start-up of the activity and the availability, control and processing of data for direct input the data center could not be launched within the timeframe of the program. All the collected data is temporarily available on the PROTOS website: http:// www.protosh2o.org/our-programs/oeganda/unep, and will be also stored in a later stage in DWRM environment.



## 2.0 Project outcomes

The project has allowed testing the inclusion of Climate change adaption efforts within the IWRM planning policies that are being piloted. As a result the CMP was revised based on the outputs of this program.

New tools were developed to improve bottom up planning processes and experience was gained on articulation of the roles of the Districts in the roll out of Climate Change Adaptation action plans. At the same time the capacities of key stakeholders were strengthened.

Due to the implementation of the sensitization campaigns and the pilots the adaptive capacity of communities was increased.

#### **Recommendations & way forward**

The program was rolled out during one year and was considered as a new component within the ongoing IWRM efforts. It has shown that the time frame of one year was rather short as it concerns a quite complicated matter and bottom up planning processes have been shown to need a lot of time. Especially field piloting becomes challenging within a one year time frame, especially when the identification and planning is to be done in an effective and participatory way.

Related to the outcomes of the activities and their long term impact it is at this stage still difficult to monitor as some pilots have just ended recently or are related to initiatives that are expected to show only impact over a longer period.

The micro catchment planning processes created a lot of expectations within communities which can only be addressed if the overall CMP can be rolled out or at least more pilots can be launched. At the same time different pilots were proposed that are not yet tested due to their lower significance or the fact that they could not fit within the program timeframe and or budgets.

PROTOS is currently still active within the catchment with his IWRM program in collaboration with the DWRM and funded by the Belgian DGD with emphasis on access to drinking water and sanitation. Within the context of this long term cooperation between PROTOS and the DWRM, the outcomes of the UNEP supported pilot can be further monitored and seek for opportunities to further roll out the proposed CCA actions within the catchment.

In general it can be concluded that the program was successful and most targets were reached within the available timeframe and budgets. Specific recommendations were done and a way forward was proposed. The pilot and its outcomes were discussed at National level in the Thematic Team on IWRM hosted by the Ministry of Water and Environment. Mainly the new approaches on community involvement by the use of specific tools for sensitization, capturing indigenous knowledge and bottom up planning processes were considered as practices that can be integrated within the national policy.

## 3.0 Introduction

Part of the Adapting to climate change induced water stress in the Nile River Basin project, two country demonstration sites were selected notably Ethiopia and Uganda.

In the case of Uganda, the Belgian NGO PROTOS and the Directorate of Water Resources Management (DWRM) of the Ministry of Water and Environment (DWE) in Uganda were responsible for carrying out one of the demonstration sites. This included using tools of Integrated Water Resource Management (IWRM) and CCA to increase the resilience of the local communities in Fort Portal Municipality and in rural areas in the Districts of Kabarole, Kamwenge and Kyenjojo.

The project started end of 2011 and was mainly designed to integrate the aspects of CCA in the ongoing IWRM planning activities that took place within the Lake George Basin and Mpanga subcatchment since 2006. In a partnership between the Ministry of Water and Environment (DWE) and PROTOS a proposal was submitted to UNEP. In 2012, the program was finally rolled out, coordinated by PROTOS and the DWRM with support from UNEP. The key actors formed a steering committee where PROTOS and the DWRM (mainly representatives from the Albert Water Management Zone) took a leading role and other implementing partners were involved in decision making.

The implementation itself was taken up by mainly (contracted) partners, such as local NGOs and consultants as well as specific departments within local government (mainly districts).

As the CCA was the result of the first CMP put in practice within Uganda that is in line with the new CB IWRM policies, the issue was rather new and required a new field assessment to be done in order to fully understand the challenges in its local context as well as the indigenous people knowledge that was available on ground. At the same time some tools needed to be developed to initiate the necessary sensitization on ground and to coordinate the bottom up planning processes to follow up these sensitization session



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