FINAL EVALUATION OF THE NORAD AND WWF-NORWAY FUNDED-SEMULIKI RIVER CATCHMENT AND WATER RESOURCES MANAGEMENT PROJECT, UGANDA

Project No:	WWF – 9F0822 WWF-Norway – 5025 Norad-GLO-08/449-24
Project Name:	Semuliki River Catchment and Water Resources Management Project, Uganda

FINAL REPORT

Prepared By

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Commissioned by:

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Acknowledgement

I and my local counterpart express our gratitude for having been selected to undertake the Final Evaluation of the WWF Semuliki River Catchment and Water Resources Management (SRCWRM) Project. We are indebted to the support that has been rendered by World Wide Fund for Nature - Uganda Country Office (WWF-UCO) in Kampala and officials at the Project Management Unit (PMU) Offices in Kasese that has enabled us to elaborate this report. We are particularly grateful to Mr. Thomas Otim of WWF UCO and Ivan Ebong of the PMU in Kasese for facilitating our consultative mission between 11th and 17th November 2012 in Entebbe and western Uganda. Being a Final Evaluation, we have laid emphasis on two main facets: first – an evaluation of the overall project performance, presentation of lessons learned for WWF-UCO and secondary, a set of recommendations to the Directorate of Water Resources Management (DWRM) for the eventual roll-out of Integrated Water Resources Management (IWRM) across Uganda. We hope that this report adds value in expounding on the appreciation of IWRM as a concept and supporting implementation of future similar projects.

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Acronyms and Abbreviations

CBO	Community Based Organisation
CMP	Catchment Management Plan
DRC	Democratic Republic of Congo
DWRM	Directorate of Water Resources Management
FBOs	Faith Based Organisation
GPF	Global Program Framework
IWRM	Integrated Water Resource Management
KAP	Knowledge Attitudes and Practices
KCCL	Kasese Cobalt Company Limited
LFA	Logical Framework Analysis
LG	Local Government (Districts)
MTR	Mid-Term Review
MWE	Ministry of Water and Environment
NEAP	National Environmental Action Plan
NEMA	National Environment Management Authority
NGO	Non-Governmental Organisation
Norad	Norwegian Agency for Development Cooperation
NWSC	National Water and Sewerage Corporation
PMU	Project Management Unit
SIWI	Stockholm International Water Institute
SRCWRMP	Semuliki River Catchment and Water Resource Management Project
UCO	Uganda Country Office
UWA	Uganda Wildlife Authority
WA	Watershed Association
WUC	Water User Committee
WUG	Water User Group
WWF	World Wide Fund for Nature

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Executive Summary

The Semuliki River Catchment and Water Resources Management Project (SRCWRM) was designed as a pilot and precursor for a national roll-out of Integrated Water Resource Management (IWRM) Program across Uganda. The project aimed at contributing towards improvements in the functioning and sustainability of the Semuliki River Catchment ecosystem; conservation of its water, biodiversity, and other natural resources to meet basic human needs. This final evaluation is part of the funding requirements of WWF Uganda Country Office and WWF Norway and was proposed to assess the degree to which the project achieved its purpose, and outputs as well as generally the quality of the design and management of the project. In addition this evaluation is intended to capture lessons on the formation of local-level IWRM structures which may be of use as the process of IWRM implementation unfolds in the rest of Uganda.

The SRCWRM project was rated by this evaluation as highly relevant to Uganda's policy and development framework including Uganda's national development plan that calls for promotion of sustainable population and the use of the environmental and natural resources and environmental management; MDG targets that call for Uganda to integrate the principles of sustainable development into the Country policies and programs and to reverse the loss of environmental resources; and the National Water Policy framework for Uganda in 2005, focus has now been put on both water development and water resources management. The project was also implemented in line with the aspirations of Uganda's National Environmental Action Plan (NEAP) calls for identification of alternative investments in natural resources and biodiversity protection. As mentioned above, lessons learned from the implementation of the project will go a long way in informing the design of the approach to IWRM and its planned roll-out across the country after 2012. In this regard the project is highly relevant to IWRM institutional development and intentions for its scaling up in Uganda under the Directorate of Water Resource Management (DWRM). Through building of capacity of officials in districts within the sub-catchments to appreciate IWRM as an approach to catchment conservation, the project was able to utilize local government structures of natural resource departments of districts within the sub-catchments in its interventions. Local Government officials found this project very relevant to their work and some pledged to sustain on-going activities and lobby for financing of IWRM in future LG planning and budgeting process.

IWRM is a relatively new phenomenon in Uganda. This reality requires sustained awareness creation to change attitudes and perceptions and increase an appreciation of water resources conservation and catchment protection especially at policy and community levels. It was not possible to achieve all these in five years – when starting IWRM institutional development processes from scratch it would seem that five years may be too short a time for substantial impacts to be achieved, however a good start can be made. At a SRCWRM stakeholder's workshop in November 2012 in Fort Portal, district leaders expressed optimism that the ratification of the constitutions of the Water Catchment Associations and the desire to sustain support for IWRM after the end of the project period means that some of the projects' outcomes shall be sustained and will remain valid for years to come.

The project adopted a long-term multi-faceted approach to achieving its outputs. The project has a large component of social and behavioural change associated with it, with implications that community members may have to modify their actions in order to improve catchment management. Thus a large part of the project was devoted to raising awareness and building capacity amongst community members about the need to act. There are four major factors that helped improve the project effectiveness emanating from reforms in its design and its anchoring towards its intended results:

i. Revising the scope from three to two sub-catchment areas including dropping the transboundary aspect of the project since the partnership with leaders from the DRC was not easy to attain;
ii. Review of the Logical Framework at the inception and mid-term reviews that included changes and modifications that provided clarity and ease in project execution;
iii. Alignment of project design with central and local government and other stakeholder's expectations to prepare the roll out of the IWRM across Uganda; and

iv. Setting up an exit strategy that prepared ground for sustainability activities and options that other agencies will carry forward.

The Inception Phase Review performed in 2009 identified problems with the project management structures at that stage, making recommendations to remedy this. Based on the findings changes were made and a new Project Manager was recruited to head the project management unit (PMU). Together with his team, the project (especially after April 2010) began to deliver as expected and activities moved quickly and steadily till the end. This evaluation spent time with the full project team in the field, observing their interaction with project stakeholders such as local government officials, DWRM representatives, local communities and the private sector. What emerged was that amongst all these stakeholders the project team was well respected; with their opinion and inputs encouraged actively.

Overall, the project operated on a relatively small budget of approximately USD 1.2million but was able to accomplish almost all it set out to achieve at its inception. A key issue which held the project back and prevented greater achievement of the project outputs is the slow start the project got off to. This delay meant that resources which were not applied effectively in the first few years of the project were then 'lost', due to the financial requirements of the donor as funds could not be rolled-over to the next year. Other than that, the SRCWRM project was efficient in delivery of its purpose because it was able to streamline its focus early in the project and concentrate efforts on 'what could be manageable' within time and budget.

The SRCWRM project management is commended for 'listening to and working-with' other partners in the sub-catchment especially the private sector, district leaders (including at sub-county level) as well as local and international NGOs specifically Uganda Wildlife Authority (UWA), Protos, CARE and IUCN. Leading this partnership effort was the Project's Technical Advisory Committee (TAC), ensuring that the project developed an approach to IWRM which is appropriate to the Ugandan context. DWRM Albert Water Management Zone office staff worked closely with the SRCWRM project and keenly participated in the work done in the sub-catchments including the training of trainers, the establishment of structures for WUGs, visits to pilot projects to assess the extent to which the sub catchment management plans are being implemented. The Ministry of Water and Environment (MWE) set up the zonal office in Fort Portal in mid-2011, making it possible for staff to engage with the project. Other stakeholders with whom the partnership has begun to bear fruit, are the industries in the area specifically Tronder Power, Kasese Cobalt Company Ltd. (KCCL), Kilembe Mines and the National Water and Sewerage Corporation (NWSC). In the beginning, the appreciation among these industries was low but with gradual engagement by WWF there is now substantial growth in focus for catchment protection and importance thereof, with initial approaches for payment for ecosystem services emerging.

Results

As the first output of the project, a database, was produced and contains studies and reports about the catchment. The dataset will now be kept at the WWF-UCO and maintained by the Conservation Manager. During this evaluation, a Knowledge Attitudes and Practices Survey was in the process of being finalized. Much as this was done so late into the project, it is poised to inform successor interventions on the level of WRM awareness and contribute to further project design to enhance WRM processes at community, CBO, NGO, sub county and district levels. It was evident that radio talk shows, drama, and community outreaches had an impact on awareness creation. Communities could easily relate to radio messages and the importance of catchment protection. The project is commended for putting in place a capacity building plan to assist in provision of technical knowledge to community and local government leaders. Through a multi-stakeholder participatory approach the SRCWRM project was exemplary in producing two Catchment Management Plans for the Mubuku/Nyamwamba and Lamia/Lower Semuliki sub-catchments. Though these plans were not meant to be implemented under the project, Catchment Management Organizations were established through which implementation will be sustained with support of district local governments. Selected parts of these two plans have been piloted and 13 WUGs were already implementing pilot IWRM projects. There was routine knowledge dissemination by the PMU to the stakeholders through hard-copy and softcopy transmission. In addition, workshops were also held to facilitate the dissemination process although there is still limited dissemination beyond the project stakeholders-which the central government will not take on as it plans roll out of IWRM across Uganda.

Impact

At the scale of the sub-catchments where this project has been active it was clear that the links between water-use and catchment conservation are becoming better understood. For instance during the focus group meeting with representatives from the private sector it became evident that there is great appreciation by them for the project. As communities upstream of the water-intake points for these companies become more engaged in conserving the catchment so too will the quality of water improve – mainly through reduced sediment and debris levels. Representatives from Tronder Power and KCCL stated that this is an important factor to consider in the operation and maintenance of their hydro-power works and blockages caused through debris or through having to remove sediment lead to costly shutdowns in operation. The representative from the NWSC made similar points about preserving the quality of water in the catchment from which they source their supply for the Kasese municipality. Each of these companies are now active in engaging with the watershed associations (WAs) and have invested financial resources in catchment conservation – such as Tronder donating 10,000 tree-seedlings to communities in their catchment to plant for river bank stabilisation.

The nature of the project design and the involvement of the local governments, private sector and involvement of communities (and subsequent set up of the water user groups) has 'grounded' the project and left behind a foundation that will sustain Semuliki River catchment conservation at least in the medium term. Because the capacity building plan was not fully rolled out, it consequently got 'the least likely' assessment on aspects of the project will most likely be sustained. Above all, there has been a bold attempt to raise the profile of water resource conservation up the policy agenda at the district level as well as awareness creation at the grassroots (through radio talk shows, drama and WUGs) whose impact will go a long way in creating social change, appreciation of catchment management issues and is most likely to be enhanced further-on after the project. There remains a set of factors that will constrain sustainability of project results:

i. Increase in both human and livestock population and attendant impact on natural resources;
ii. Some cultural practices among a few communities that are negative and contravene IWRM practices (for instance 'cleansing' the dead in the river to drive away spirits among others);
iii. Industrial activity that increase emission of effluents into the river;
iv. Limitation in resources to sustain activities of WUGs; and
v. Low policy enforcement of current legislation on catchment conservation and protection.

The evaluation identified three major ways in which project results can be replicated and magnified across Uganda and beyond which include:

i. Uptake of lessons by the Uganda Government through the DWRM;
ii. Continuation of work done through WUGs by Districts Local Governments; and
iii. Utilization of regional partners such as the Global Water Partnership (GWP) in East Africa and the Nile Basin Initiative and possibilities for engagement under the Cooperation on International Waters in Africa (CIWA) which will replace the Nile Basin Trust Fund (NBTF) after 2012).

General Lessons Learned

Some key lessons can be learned about the process of rolling-out IWRM at a community level. These lessons are of relevance to any IWRM initiative – in most parts of the developing world, but are primarily intended to enrich the development and implementation of IWRM in Uganda and are thus developed from that perspective.

An incremental approach: A project such as this takes time; as it involved developing new structures from the ground-up as well as changing well-established patterns of behaviour. From the outset it is important to make provision for the time it takes to create awareness, build capacity, establish structures and then to pilot activities. Most of these outputs are incremental – building on and depending on each other and it is thus not possible to operate actions in parallel. For instance, trying to run demonstration activities such as tree-planting and buffer-zone creation in parallel with the awareness-raising phase runs the risk of the activities becoming ad-hoc and once-off. The *process* of building IWRM institutions is in this case more important than the final *product* alone.

A staggered approach to working with various communities is good. As a project starts in one or more sub-catchments some communities can be identified as "early adopters" of the principles introduced. These could be communities with existing social institutions, or that are experiencing a pressing issue around water resources management – water scarcity, water pollution, flooding etcetera. The project could then focus initial actions on these communities and aim to make some early headway in the project. This serves two key purposes – first it allows the project implementation team to learn from mistakes and unintended consequences; second it is possible to use these communities as demonstration cases for later communities.

Seeing is believing: Linked to the above it is important to promote learning between community groups. Study tours or exchange visits to other communities in the same sub-catchment, communities in another sub-catchment as well as to other projects in other parts of the country or in neighbouring countries can play a catalytic role in raising awareness and building support. Positive impacts of such visits include building support for the initiative by seeing how it operates in another area, highlighting problems and solutions thus promoting learning, signalling to the communities that the process is large-scale and not only involving them. These benefits potentially flow both ways – to the community doing the visiting as well as to the community being visited.

Poverty eradication: Livelihood improvement activities should be an integral part of the whole process of establishing IWRM structures as they contribute to the initial buy-in as well as to sustainability. To improve the welfare of the people engaged in these activities becomes an especially important incentive for catchment conservation in situations where communities are not being impacted directly be a drop in the quantity or the quality of water, such as in many parts of the Semuliki catchment. In situations where communities are being negatively impacted through drops in quantity or in quality of water or recurring issues such as floods it is easier to generate support for catchment conservation.

Sharing of costs and benefits: In every catchment there are beneficiaries from catchment conservation and those who bear the cost. Linked with the above point it is important to establish a link between those who accrue the benefits and those who live with the cost; done by looking at opportunities for cross-subsidisation or payment for ecosystem services. The WUGs with the support of the district government could possibly represent such a framework, providing assurances to those participating in catchment conservation that their investments are effective and beneficial.

Lessons for DWRM on the National IWRM rollout process

Based on the outcome of this evaluation there are some specific lessons-learned which are of relevance to the Government of Uganda as they develop the IWRM process for the rest of the country.

At a national level there is an urgency to develop an institutional framework for IWRM at the local level. There is a risk that the institutions which have been developed under the Semuliki project are not supported in the future configuration of IWRM institutions in the country, thus before proceeding further with entrenching them it is important that there is clarity on what the future institutions would look like. A key issue to consider in this regard is scale – at what level would these groups operate? At present the WUGs each comprise members from several communities (villages), and each watershed association (WA) contains three or four WUGs, but it is not evident whether this is the desired configuration for the rest of the country. A key lesson here is that WUGs need to be big enough to be able to access sufficient internal resources – by having a large enough and diversified enough range of water users as members. This also reduces the number of groups which local and central governments need to interface with, possibly leading to more effective cooperation.

The WUGs need a mandate to perform catchment management duties and charge for them. This would open possibilities for them to raise funds locally and act as guarantors of payment for ecosystem services actions as described above. The existing Water User Committees (WUCs) depend on a clean water resource being available, thus there should be a formal institutional link between them (i.e. WUCs) and the Water User Groups (WUGs). In the short run, it may not prove effective to merge these organisations as the WUCs would typically operate over a much smaller scale than WUGs.

In light of the limited financial and human resources available at both central as well as district government level it is preferable to roll-out IWRM in one area at a time. The lesson of the Semuliki project is that it is a slow and resource-intensive process to develop, and then establish IWRM institutions and one with several pitfalls along the way. Focussing on only a few regions (however defined) at a time and securing successes there is preferable to a large-scale process which is ultimately under-resourced. This point would also be of relevance in the international Transboundary dimension. First, focus on establishing structures on the ground in Uganda before trying to form cross-border mechanisms. However the ultimate aim should always be to manage the catchment as a whole – thus eventually establishing appropriate links across the political boundaries.

Overall Recommendations

The SRCWRM was in many respects a ground-breaking project; it operated in a relative policy vacuum, with few equivalent projects having been implemented in Uganda which could have served as a source of knowledge and experience. While an exchange visit was made to Kenya, the project was more or less a 'laboratory testing' of IWRM practices to see 'what works and doesn't' in the Ugandan context; a case of learning by doing and building from the ground up. Thus it is important that future IWRM projects in Uganda as well as the neighbouring countries can learn from this experience and improve their own eventual impact. Below are the overall recommendations from the evaluation.

i. The first core recommendation is for WWF-UCO and the DWRM to seek ways to continue the SRCWRM project, building on the good work which has been initiated under it. A second phase of the project would continue to strengthen the institutions formed under the project and implement more activities as well as further integrating with the national-level IWRM roll-out process.
ii. Since IWRM remains a new phenomenon, awareness creation is essential for such a project to succeed. Therefore for projects of a similar nature to flourish, most of the effort should be focused on awareness-raising. However long awareness-raising may take it is vital that it is done, for without it efforts to implement local IWRM may fail.
iii. Set-up a database illustrating critical catchment data (maps, population size on either side of the river banks, levels of knowledge attitudes and practices, stakeholder data etc.) early in the process since all subsequent processes will dwell on its robustness – thus allowing project partners to access the knowledge products associated with the project;
iv. Multi-level stakeholder engagement is very effective in unleashing ownership and broad participation (community level, local government, private sector, central government). While engaging stakeholders to develop plans and project material as well as documentation, it is important to widely disseminate knowledge, best-practices and processes of plans development and implementation;
v. Technical Assistance is a continuous process and should be structured to cut across all aspects of the project implementation;
vi. It is important to start with a clear catchment assessment that includes a KAP survey, project scoping information, institutional set up and with the right management
vii. The project's financial system should be structured not only to be a financial reporting tool but also a project management tool
viii. Actively seek future sources of funding for the institutions established under the project in an effort to build on the progress made through the project; and
ix. It is recommended that DWRM utilizes lessons from the process of setting up sub-catchment plans under this project for future clarification of IWRM structures, roles and responsibilities at various levels of catchment management.

While there is still little time left, emphasis is needed to continue the work of strengthening the management structures for WUGs which are still fragile and unable to sustain activities on their own. It is important to note that during the last year of the project, clear commitments were made by the central and district local governments to carry on with the implementation of pilot projects that are on-going as part of the exit strategy by stakeholders in November 2012.

1. INTRODUCTION

1.1 The Semuliki River Catchment and Water Resources Management Project

The Semuliki River Catchment and Water Resources Project (SRWRMP) aimed at coming up with innovative catchment and water resources management options in the Semuliki River Basin. This was also a response in recognition of threats that the catchment faced originating from increasing human population pressure on natural resources and devastating degradation. This was evidenced by deteriorating water quality and quantity as well as the continued changes in the course patterns of the lower reaches of the Semuliki River on the border between Uganda and the Democratic Republic of Congo (DRC). The project's purpose was to contribute towards functionality of integrated water resources management through establishment and implementation of sub-catchment plans for at least two sub-catchments feeding the Semuliki River. As a pilot project lessons from this process are to provide guidance to the roll out of the national IWRM process planned after 2012. The project was also part of WWF regional programmatic work on freshwater in East Africa to pilot and test IRWM components of the water sector reforms in Uganda, Kenya and Tanzania.

1.2 The Purpose of the Final Project Evaluation

In November 2009, an inception phase evaluation for the project was conducted by WWF Uganda Country Office (WWF UCO) in collaboration with WWF Norway to assess the relevance of the project, the efficiency and effectiveness of the project and proposals were made to guide project implementation. Later in September 2011 a mid-term review was conducted as an independent assessment of the project in line with its Logical Framework Analysis (LFA). The project now comes to a close in December of 2012. This therefore, is a draft report of the final evaluation exercise that was commissioned by the WWF UCO in collaboration with WWF Norway. The objective of this final evaluation was to assess whether project had achieved its purpose and outputs, to guide future interventions, and also to assess if it had contributed to organisational learning and documentation of lessons for WWF and other stakeholders - particularly the DWRM that plans to roll-out the IWRM platform across Uganda. Specifically, the evaluation's purpose was to assess: the relevance and quality of the project design as well as the adequacy of the design in addressing the problems and needs of the beneficiaries; the effectiveness of the project in arriving at its purpose i.e. the extent to which strategies devised were effective in enabling the project to achieve intended results; the efficiency in ensuring that the results are reached within projected resources both financial and otherwise; the impact felt by the project implementation; as well as issues of sustainability and replicability so that results generated can continue to serve way after the end of this project and replicated elsewhere in Uganda and beyond.

1.3 Summary of Project Information

Project Name	Semuliki River Catchment and Water Resources Management Project, Uganda
Project Location	South Western Uganda
Project Ref.	WWF 9F0822; WWF-Norway 5025 Norad GLO-08/449-24
Project budget	*Per year:* **2008**: NOK 996,243, **2009**: NOK 1,062,987 **2010:** NOK 1,470,003, **2011:** NOK 1,543,505, **2012:** NOK 1,543,691
Donor	Norwegian Agency for Development Cooperation (Norad) and WWF-Norway
Implementing agency and partners	WWF-Norway through WWF Uganda Country Office, District Local Governments and Directorate of Water Resources Management
Contact person	Thomas Otim, Conservation Manager, WWF UCO (totim@wwfuganda.org); David Duli, Country Director WWF UCO (dduli@wwfuganda.org); Ivan Ebong, Project Manager, Semuliki, (iebong@wwfuganda.org); Andrew Fitzgibbon, Conservation Director International Programs, WWF-Norway (afitzgibbon@wwf.no)

2. METHODOLOGY

2.1 Introduction

In November 2012, WWF UCO and WWF Norway contracted an Independent Consultant Anton Earle and a local counterpart Drake Rukundo to conduct the final evaluation of the SRCWRM project for which the following four-stage methodology was devised:

Step 1: Literature Review:
The Consultants reviewed literature that mainly included: Project proposal Document; Logical Framework Analysis (LFA);Annual Work-plans & Budgets; Semi-annual and annual Technical Progress Reports (TPR);Quarterly and annual Financial Reports (FR);Consultancy Reports; Capacity Building Plan; Sub-Catchment Management Plans; Inception Review report; Mid-Term Review Report; and Annual Audit Reports. Other literature provided by the PMU while in the field included documentation of the process leading to the development of the capacity building and sub-catchment management plans and copies of proposal made by Water User Groups, among others. The review of the above literature grounded the Consultant's understanding of the project conceptualization, reviews that the project underwent mainly after its inception and at mid-term level. The Consultants have also reviewed critical documentation of the IWRM frameworks in Uganda and in Africa including information from the Nile Basin Initiative (NBI).

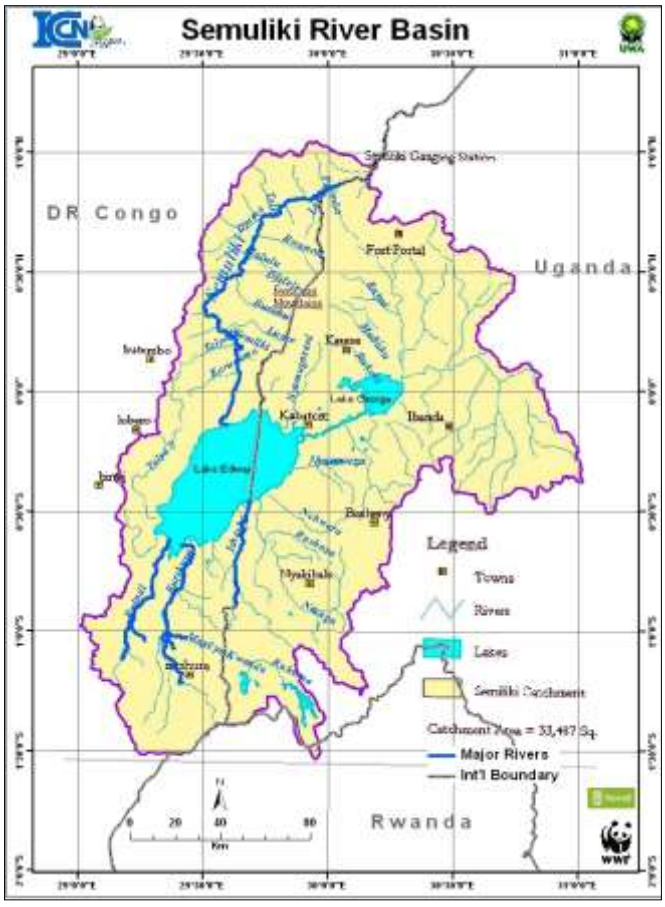
Step 2: The Inception Report
The Consultants produced an inception report outlining their understanding of the scope of work and a participatory approach to the assignment. They utilized an inter-play of qualitative and quantitative techniques of investigation and analysis. The inception report highlighted showed a list of persons to interview, locations of site-visits, a work-plan and key evaluation questions that guided the study. Changes were later made on the field plan due to variations in location and availability of respondents and a need to cover as much as possible within the mission time. The consultants discussed comments that had been raised by WWF-UCO on the inception report at a meeting hosted by Thomas Otim, the Conservation Manager, on November 12th 2012.

Step 3: Field Mission to Western Uganda
Before embarking on a field consultative mission to western Uganda, the Consultants met with the Director of Water Resources Management, Eng. Shilling and his staff at his offices in Entebbe. At this meeting the Director DWRM, stressed his appreciation for WWF-UCO for this project and expressed his eager anticipation of lessons learned from the project. With support from the WWF-UCO in Kampala and the Project Management Unit staff in Kasese, the Consultants undertook a week-long mission between November 12th-16th 2012, which covered the two main sub-catchment areas under the project i.e. Mubuku/Nyamwamba and Lamia/Lower Semuliki sub-catchments. The mission included meetings with leaders of Local Governments (LGs) in Kasese and Bundibugyo and Ntoroko districts. A focus group discussion was held with selected private sector representatives engaged in the water resource use and management. The consultants were hosted by committee leaders of Water User Groups (WUGs) in Karusandara, Bugoye, Bugando-Nyansoro in Kasese, and Bundibugyo. These provided on-the-ground insights into what progress the project had made in the sub-catchments. More information can be found in Annex 2.

Step 4: Reporting and Closure of Assignment
A one-day stakeholders' workshop was held in Fort Portal on Nov. 27, 2012 and brought together stakeholders who had been actively engaged in the program implementation that included: district leaders; representatives of WUGs; Uganda Wildlife Authority (UWA); National Water and Sewerage Corporation (NWSC); private sector entities and a representative of the Kingdom of Toro among others. The stakeholders made comments on the presentation of initial findings, which together with comments on the first draft report by WWF-UCO and WWF-Norway, have been incorporated into this final report.

3. PROJECT BACKGROUND AND CONTEXT

3.1 Project Background and Context



The Semuliki River and its catchment is a 33,500 km^2 area shared between Uganda and the Democratic Republic of Congo (DRC), see map besides. This vast and lush catchment covers a network of protected areas: the central Albertine Rift Queen Elizabeth National Park, Kibale National Park; Semuliki National Park; Rwenzori Mountains National Park; Kyambura Wildlife Reserve; and Kasyoha-Kitomi Forest Reserve all in Uganda as well as the Virunga National Park in the DRC - which one of oldest and largest and most biodiversity-rich parks in Africa. There are also diminishing areas of natural vegetation outside the protected areas and large tracts of cultivated land.

All together, the Semuliki River Catchment presents an internationally recognized exceptional level of natural plant and animal species diversity. Over the years, increase in human population and its activities have presented threats to the catchment due to pressure exerted on these natural resources. A prevailing weak institutional environment to deal adequately with water resource management within the catchment has not helped the situation. As a result, there is deforestation, deteriorating water quantity and quality as a result as well as changes in the lower parts of the Semuliki river course. Effluents from industrial action are being discharged into the river flow although not at a large scale. On land, charcoal burning, agricultural extension, sand mining and sustained cutting of fuel wood continues almost unabated. Cultivation continues in most cases right to the banks of the Semuliki River. Climate change is a growing threat as well. The rapidly receding glaciers of the Rwenzori Mountains attest to this. Land use changes and climate change result in landsides and erosion.

Cognizant of these developments, the Semuliki River Catchment and Water Resources Management (SRCWRM) Project was designed as a pilot project to support the Government of Uganda to protect and conserve this catchment through implementation of innovative catchment and water resource management options. This is the reason why Transboundary aspects were initially part of the original project concept so that catchment protection involves both Uganda and DRC on either side of the boarder.

3.2 Overall Project Purpose

The project's purpose was to contribute towards functionality of integrated water resources management through establishment and implementation of sub-catchment plans for at least two sub-catchments feeding

the Semuliki River; and later to provide guidance to the roll out of the national IWRM process planned after 2012.

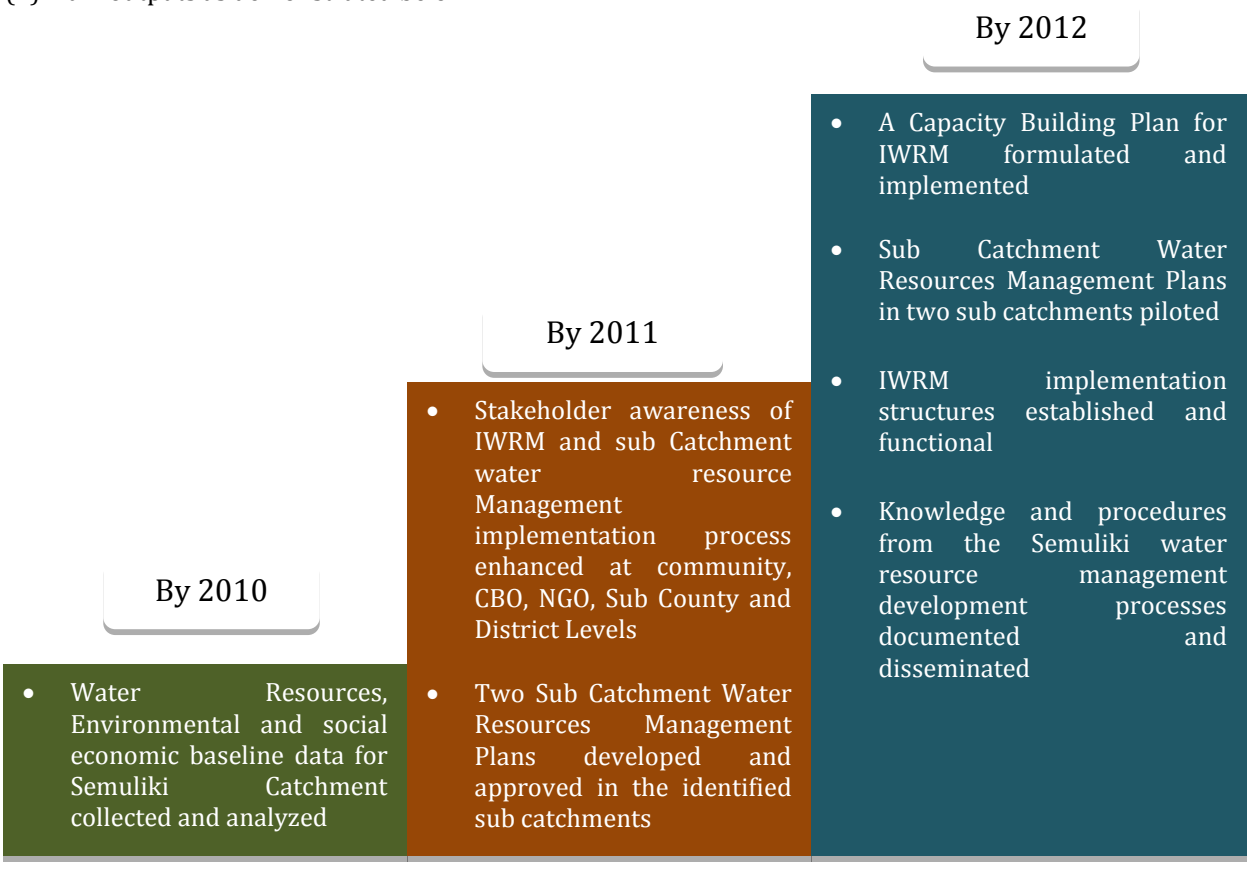
3.4 Project Implementation Arrangements

The SRWRM project has been implemented by WWF Uganda Projects Coordination office with support from the Freshwater Programme Coordinator and Albertine Rift Programme leader, based at Eastern African Regional Programme Office (EARPO) in Nairobi. The funding was provided by Norad and WWF Norway. A problem synthesis was done at the conceptualization of the project which was designed to undergo three phases: a) a pilot phase; b) an implementation phase that was to undergo internal and external reviews and c) an exit phase. The implementation phase carried-on with some outputs from pilot phase and took on additional ones including: further awareness-raising about catchment protection; capacity building for stakeholders; implementation of action plans and development and piloting mechanism for IWRM in sub-catchments identified under problem synthesis.

The main and immediate beneficiaries of the project were the local people living in the Semuliki catchment on the Ugandan and DRC sides. These people are mainly smallholder (less than five acres) farmers living in the catchment and relying on local resources for their livelihoods. Emphasis was put on equal participation by women and men will be encouraged by sensitization and mobilization in the communities. The project implementation Unit was based in Kasese district sharing the office with the on-going Rwenzori Project at the premises next to those of the Uganda Wildlife Authority. The project worked in close collaboration and partnership with the respective national and local government agencies, regional bodies, the private sector and Civil Society Organisations.

3.5 Overall Expected Outputs

The project was guided by a Logical Framework Analysis and was implemented to achieve following seven (7) main outputs as demonstrated below



4. RELEVANCE AND QUALITY OF PROJECT DESIGN

4.1 Project's Relevancy

The SRCWRM project was rated by this evaluation as **highly relevant** to Uganda's policy and development framework in seven different aspects:

a) The National Development Plan (NDP).

The NDP, Uganda's blueprint planning document notes that 'while Uganda's development focus is on removing barriers to sustainable growth, it does not lose sight of the necessary changes required in achieving gains in these areas of social development. These will include strategies to mitigate the consequences of emerging pressure on the environment. Indeed one of the core objectives of the NDP is promoting a sustainable population and the use of the environmental and natural resources and environmental management is a key facet of the enabling sectors for Uganda's NDP (NDP 2010/11-2014/15 Page 22 Sub section 2.1.5). However, the focus for environmental protection in the NDP is not concrete on Uganda's strategic thrust for water resources management, but rather on water resources for domestic use and production - a pointer to the limited emphasis on IWRM at the national policy discourse.

b) The Millennium Development Goals (MDG 7)

The MDG 7(a) target calls for Uganda to integrate the principles of sustainable development into the Country policies and programs and to reverse the loss of environmental resources. Secondary, MDG 7 (b) is a target for Uganda to reduce biodiversity loss significantly by 2010. The 2010 MDG report rated Uganda with a 'slow/stagnant' score meaning that efforts by the SRCWRM Project was highly relevant in setting pace for an expedited realization of these targets.

c) National Water Policy

After the reform in the Water Policy framework for Uganda in 2005, focus has now been put on both water development and water resources management. This is now being followed with the intention to roll-out a complete IWRM platform across Uganda. The Government of Uganda (GoU) has supported the SRCWRM project through the MoU between WWF and the Ministry of Water and Environment. Uganda's water sector is undergoing reforms notably the review of the National Water Act. Also the DWRM is keen on rolling out the IWRM platform across the country and regards this project relevant to the on-going review to the extent that DWRM noted that they will be willing to fast track piloting of similar projects in other parts of the country, if the review of the Water Act took long to conclude. Uganda does not have in place an IWRM policy although there a draft report from the MWE on the Operationalization of Catchment based WRM of July 2010.

d) National Environmental Action Plan (NEAP)

By and large the SRCWRM project has been implementing Uganda's National Environmental Action Plan (NEAP). The plan that came into force in 1994 identifies alternative investments in natural resources and biodiversity protection. Working with the National Environmental Authority (NEMA) and the Uganda Wildlife Authority[1] through the Catchment Management Organization (that included a range of stakeholders), the project implemented pilot investments for river banks protection, knowledge dissemination through drama and supported advocacy for local leadership on effects of deforestation. A review of documentation on the implementation of the NEAP exposed very limited concrete structures for WRM with most emphasis being put on Technical Support Units (TSUs) for capacity building for Water User Committees. Officials from the MWE are calling for the merger of both WUCs and WUG structures (to avoid forming parallel structures). However, this project was able to generate awareness to policy makers that without catchment protection,

[1]Uganda Wildlife Authority (UWA) is Uganda's management authority for wildlife protected areas such as national parks and wildlife reserves, of which there are several in the Semuliki River Catchment. The most important natural water tower in the catchment is the Rwenzori Mountains that is protected as the Rwenzori Mountains National Park in Uganda and managed by UWA.

water supply is threatened. As IWRM is rolled out country-wide the more the SRCWRM project will be relevant in lending lessons to support the implementation of the NEAP.

e) Major stakeholders and their roles and interests

There were five (5) major stakeholders who were largely involved in the design, planning and implementation of the project either directly or indirectly and who were impacted in one way or the other by the project overall. These included:

i. Central Government (Ministry of Water and Environment): Uganda adopted the principle of IWRM during the design of the Water Action Plan (WAP) in 1993. Later during the water sector review of 2005, Uganda aimed at developing this further 'to establish an effective framework for Water Resources Management in Uganda to ensure that water resources are managed in an integrated and sustainable manner" and this reform study led to the preparation of a WRM reform strategy'. Cognizant that this project was piloting IWRM for the first time in Uganda, the DRWM took keen interest to ensure that there is an uptake of lessons learned from the implementation of the project for that to input into the design of the approach to IWRM and its planned roll out across the country after 2012.

ii. District Local Governments. Districts in Uganda undertake decentralized functions of government, one of which is governance of natural resources under district departments of natural resources. In the districts where the project was implemented, officials in these departments were engaged and their capacity built to appreciate and oversee IWRM practices in the districts. District officials were involved in the design of catchment management plans and oversight over water user group activities. Districts officials expressed optimism that the learning they had acquired was relevant and critical to guide them while undertaking planning and budgeting functions for their respective departments.

iii. Uganda Wildlife Authority (UWA) and other NGOs; The UWA and other projects linked to the SRCWRM that included: Rwenzori Mountains Conservation and Environmental Management Project (RMCEMP); Lake Albert Eastern Catchment Management Initiatives (LAECMI) and Lake Edward and Albert Fisheries Pilot Project (LEAF) provided synergies that were vital to strengthening the interventions to protect the wildlife and conserve the environment of the catchment. Most of the aspects under these projects were self-reinforcing and linked and some ways assisted the SRCWRM through sharing of data and field lessons making them relevant to the project. For instance, field reports, maps and other data were very helpful to UWA which need this information for rapid response activities that were held to react to reports of activities of wild animals encroaching on human settlements or destroying crops.

iv. Small Hydro power developers and other industrialists (including SMEs) in the Sub-catchments; as the project evolved, awareness was raised on the importance of maintaining and improving water quality and quantity. This brought on board butchers, local brewery SMEs (at the low level) as well water supply provide National Water and Sewerage Corporation (NWSC) and hydro-electric plant operatives (at the high level) notably Kasese Cobalt Company Ltd (KCCL), Kilembe Mines Ltd and Tronder Power Ltd. By the time of the evaluation, Tronder Power had joined the tree planting initiatives with 10,000 tree-seedlings given out to WUGs under the SRCWRM project structures. They viewed the Mbuku sub-catchment as being very important to them if they were to get the required water quantity and quality for their power station and therefore, were able to attach direct benefit from participation in the project. Exemplified in the above engagement with stakeholders, the project was evaluated as relevant to the needs of both the public and the private sector and communities in the sub-catchment.

v. Communities in the targeted Sub-Catchment Areas; (most of whom are farmers and pastoralists): As sub-catchment plans were developed, water users in the river basin were brought on board. Water User Groups were instituted through a multi-stakeholder participatory approach that generated ownership and unleashed a spirit of volunteerism. This generated the required commitment towards project activities on the ground. It was evident from this evaluation that; as members in the WUGs participated and learned through various trainings with assistance of Trainer of Trainees (ToTs) the more relevant the project became to their needs.

4.2 Appropriateness and Quality of Project Design

The SRCWRM project began in 2008 when a baseline survey had not been conducted. When an inception phase evaluation was conducted in November 2009, it necessitated that the project design undergo a review, which was done. WWF UCO and WWF Norway are commended for commissioning the Project Internal Evaluation conducted under the leadership of John Baker, a UK based Independent WRM consultant. This internal evaluation conducted in November 2009, was the single most significant undertaking that ensured eventual success of the project. During this inception phase evaluation and the mid-term review, the project utilized a revised LFA making implementation more focused on its purpose. The LFA overall became a more sound and valuable tool that became the campus for focusing subsequent project interventions. There are four (4) major factors that helped improve the quality of project design and in ways that made the project more appropriate anchoring it towards its intended results:

a) Revising the scope from three (3) to two (2) sub-catchment areas including dropping the Transboundary aspect of the project since the partnership with leaders from the DRC was not easy to attain.

At the beginning of the project, three (3) potential sub-catchments in were identified through a participatory and extensive stakeholder process. The three potential sub-catchments selected namely:

a) Mubuku sub-catchment flowing eastwards from the Rwenzori mountains and emptying into Lake George. There are three hydropower projects as well as irrigation projects in this subcatchment;

b) Lamia River and Lower Semuliki flowing westwards from Rwenzori snowfields into Lower Semuliki. This is part of Lamia and Lower Semuliki portion form the international boundary between Uganda and DRC;

c) The third catchment was River Ntungwa/ Mitano/Kiruruma-the different names are based on the different areas it traverses. It starts in Kabale/ Rukungiri hills and drains into L. Edward. Main issue is the cultivation up to the river bank, the river is highly silted. There are several proposed sites for hydroelectric power generation in Nengo in Kanungu District

Owing to limitations in resources and the project limitation in time, the inception review recommended reducing the focus to two (2) sub catchments (a) and (b)and instead increase focus on deepening interventions over a smaller area with higher chances of success and impact 'rather than stretching itself thin over the three sub-catchments'. The internal inception review and mid-term review both helped to guide the project towards 'operating as a model catchment and river basin management project in the wider Semuliki basin'. In addition, the project dropped the Transboundary component from its LFA early-on. This eliminated what may have been 'an un-necessary' drag on implementation in light of limitations of resources (in terms of time, funds and staff) in light of the fact that engagement with partners in the DRC was not easy to attain at the time. The evaluation noted however, that the need to engage the DRC on activities to conserve the catchment remains appreciated and one that will need to happen in the near future.

b) Review of the Logical Framework at the inception and mid-term reviews that included changes and modifications that provided clarity and ease in project execution;

Refinement of the Logical framework gradually improved the project design. It is important to note that the Technical Advisory Committee also refined the LFA in April 2010. The reviews (especially the inception review and the mid-term review) called for an increase in focus on capacity building, information dissemination and undertaking Knowledge, Attitude and Practices (KAP) survey among other recommendations. These reviews also recommended changes in the LFA making the project more focused on IWRM and structures to support implementation of actual pilot projects on the ground. It was clear that then-after, operations went on much faster and in clearly-focused fashion.

c) Alignment of project design with central and local government and other stakeholder's expectations to prepare the GoU for roll out of the IWRM across Uganda;

The Memorandum of Understanding between Government of Uganda and WWF-UCO helped to solve part of the challenge that WWF has in the past hard in engaging the Central Government in two ways:

a) It provided an opportunity for the PMU to work in collaboration with the Zonal leader-AWMZ-DWRM which provided a platform for the engagement and link between the project and central Government.

b) Secondly under Uganda's decentralization framework, water resources management as a decentralized function falls under the department of natural resources. Based on the MoU, the district departments of natural resources were to become the link between the district authorities and the project albeit their limitations in financing received from central government. Heads of natural resources department in the districts visited under the evaluation, demonstrated enthusiasm and zeal in working with WWF to implement its agenda.

d) Setting up an exit strategy that prepared ground for sustainability activities and options that other agencies will carry forward

While there is still little time left, emphasis is need to continue the work of strengthening the management structures for WUGs which are still fragile and unable to sustain activities on their own. It is important to note that during the last year of the project, clear commitments were made by the central and district local governments to carry on with the implementation of pilot projects that are on-going as part of the exit strategy by stakeholders in November 2012.

4.3 Adjustments in response to changes in Project Context

The project was designed to be implemented in two phases: a) An inception Phase (2008-2009); and b) an implementation phase (2010-2012). The inception phase was supposed to provide the critical and necessary 'ground-information' and data on the sub-catchments; stakeholder identification, problem analysis and planning for the second phase. The inception review at the end of the first phase provided the much needed recommendations to re-align project implementation and adjustments to the LFA. Hence, following this review the PMU top management was replaced with new management in March 2010. It was noticeably clear that it was only after mid 2010 that the project was able to re-course in a proper direction. The mid-term review held in 2011 also provided critical recommendations and while this did not drastically change the project context, the recommendations increased the success level that was seen during this final evaluation notably the pilot activities done by WUGs.

4.4 Alignment of Project Design with donor and Government expectations

A critical catalyst for delivery of project results was adopting a multi-stakeholder focus and 'not working in isolation' as is sometimes the case with other international NGOs'. This approach increased the willingness of central and local government as well as the private sector to participate in planning and management of water resources. For instance, while it is hoped that the system currently used by the WUGs is a learning point for Government; their structure has already received recognition and legal backing by Local Governments. Other structures already instituted by Government like the Water User Committees are also being looked at as partners (with possibility of merging these) to complete the cycle of both water protection and use other than running parallel structures. Overall, the project received high rating in use of its financial resources as documented in Annual Audit reports, and constant reviews of its design made it increase its alignment with both donor and Government expectations, albeit some outputs coming late in the process.

4.5 Extent to which Project Anticipated Outcomes have remained valid

IWRM is a new phenomenon in Uganda's policy environment. This reality requires sustained awareness creation to change attitudes perceptions and increase an appreciation of water resources conservation and catchment protection especially at policy and community levels. It was not possible to achieve all these in five years At a stakeholders workshop in November 2012, district leaders expressed optimism that the ratification of the constitutions of the Water Catchment Associations and the desire to sustain support for IWRM after the end of the project period means that some project's outcomes shall be sustained and will valid for years to come. Two examples can exemplify this assertion: Once merged with WUCs the present WUGs will gain legal status and recognition as part of government structures. Secondary, the fact that this project has been the pilot; it is uniquely placed as the only project point-of-reference for IWRM in Uganda.

5. EFFECTIVENESS IN ACHIEVEMENT OF PROJECT PURPOSE

5.1 Project's Results Chain

The project adopted a long-term multi-faceted approach to achieving the overall purpose. This was needed as the project has a large component of social and behavioural change associated with it, with implications that community members may have to modify their actions in order to improve catchment management. Thus a large part of the project was devoted to raising awareness and building capacity amongst community members about the need to act. Concurrently, it was important to identify alternative livelihood opportunities as in most parts of the catchment there is a scarcity of suitable arable land. The various activities fed into the results chain, as depicted in Figure 5.1 on the subsequent page, ultimately contributing to the attainment of the project purpose. However as the project purpose (as discussed below) was to a large degree achieved it is to be expected that in the long run there is the possibility of the overall project goal being achieved. This is dependent on the continued operation of the various institutions established under the project, further discussed under the section on sustainability.

This evaluation sought to assess the achievement of the various project outputs and ultimately their contribution to achieving the purpose of this project. Below is a summary of the project performance against the set objectives and how the evaluation rated the performance of various aspects of the project as shown by the table below:

Table 5.1 Assessment of performance against set output targets

Intervention logic	Indicator	Result (Nov 2012)	Evaluation Rating of Performance[2]	Comment
Output 1: Water resources, environmental and socio-economic baseline data for Semuliki catchment collected and analysed by 2010	• 2 Baseline studies done • Centralised database established & data uploaded.	• Baseline studies on water resources & socio-economic & knowledge, attitudes & practices completed • Data being catalogued for uploading to database	Moderately satisfactory	• Development of the database is proceeding • Contains studies and reports produced under the project • Will be kept at the WWF-UCO and maintained by the Conservation Manager

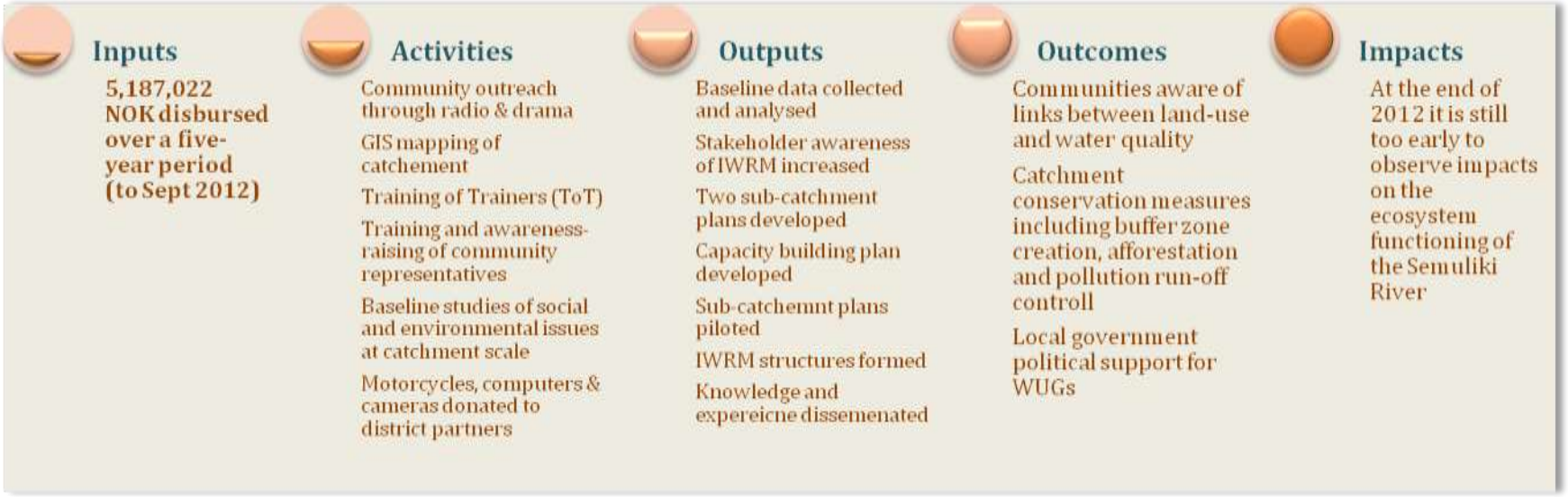
[2]Possible ratings on performance scale: Satisfactory (almost all of the objectives fully attained), Moderately Satisfactory (majority of the objectives attained to a high degree), Moderately Unsatisfactory (majority of the objectives not attained but with several attained to a high degree), Unsatisfactory (most of the objectives not attained)

Intervention logic	Indicator	Result (Nov 2012)	Evaluation Rating of Performance[2]	Comment
Output 2: By end of 2011 Stakeholder awareness of IWRM and sub catchment water resource management implementation process enhanced at community, CBO, NGO, Sub-county and District levels.	• % increase in awareness from the baseline (20%) • Level of participation of the community, especially women & youth in WRM.	• Activities around awareness-raising carried out – radio and drama shows. • Community meetings held. • Districts engaged in supporting communities in developing WUGs • Level of awareness of IWRM in communities substantially higher	Moderately satisfactory	Final Knowledge Attitudes Practice (KAP) survey is in the process of being written-up by the time of this evaluation and will be added to the database once complete. Multiple activities held: Awareness enhanced through 60 radio talk shows, 42 drama shows, 73 community outreach meetings
Output 3: By end of 2012, a Capacity building plan for IWRM formulated and implemented	• Capacity Building plan developed • # of stakeholders trained in IWRM related topics • # of assets procured & distributed to retool partners	• CB plan developed • Trainers have been trained • WUG members trained in some topics • District partners provided with tools/equipment	Moderately satisfactory	The CB plan proposed a wide range of interventions, only some of which have been implemented 60 trainers trained on IWRM and 78 WUG Committee members trained on organisational skills, proposal writing and leadership
Output 4: By the end of 2011, two Sub-catchment water resources management plans developed and approved in the identified sub-catchments	• # of management plans developed and approved.	• 2 sub-catchment management plans developed, ratified by 3 districts and approved by the CMO.	Satisfactory	Through a multi-stakeholder participatory approach the SRCWRM project was exemplary in producing two WRM plans for the Mubuku/Nyamwamba and Lamia/Lower Semuliki sub-catchments
Output 5: By end of 2012, Sub-catchment Water resources management plans in the two selected sub-catchments piloted.	• # of WRM interventions implemented in the two sub-catchments.	Pilot activities (as identified in the sub-catchment management plans) involving 13 water user groups started in the 2nd half of 2012. At this stage not the full plan being implemented – only priority areas as identified in the plans	Moderately satisfactory	While not the entire Catchment Management Plans (CMPs) are being implemented, some WUGs are in advanced stages on piloting their projects. These activities take place on a localised scale at various locations in the catchments.

Intervention logic	Indicator	Result (Nov 2012)	Evaluation Rating of Performance[2]	Comment
Output 6: By end of 2012, at least 10 water user groups and a stakeholder forum established and functional as the Semuliki catchment management organisation	• IWRM structures established in the 2 sub-catchments.	• 26 WUGs formed. • 2 Watershed Associations formed • CMO formed	Satisfactory	13 WUGs that submitted successful proposals received 50% payment and a process to finalize the rest of the funding was on going by the time of the evaluation The CMO has been formed and it approved the management plans
Output 7: Knowledge and procedures from the Semuliki water resource management development processes documented and disseminated.	• Lessons & procedures documented & disseminated	• Field reports, technical reports, meeting reports, review reports compiled and disseminated. • Monthly circulation of project updates to stakeholders.	Moderately satisfactory	There was routine knowledge dissemination by the PMU to the stakeholders through hard-copy and softcopy transmission. Workshops were also held to facilitate the dissemination process. Limited dissemination beyond the project stakeholders.

The project purpose (*Plans and structures for integrated water resources management functioning for at least two sub-catchments feeding the Semuliki River and processes recorded to guide national IWRM rollout by the end of 2012*) relates to the outcome level of the results chain. Here it was possible to assess that the project was **moderately satisfactory** as the objectives of the various project outputs have largely been achieved. The two sub-catchment management plans exist and appear to be of good quality. The communities with which the project worked are more aware now of the links between land-use management and catchment conservation – evidenced by their participation in and contribution to the WUGs.

Figure: 5.1 Project Results Chain



5.2 Factors that Influenced Project Effectiveness

As has been described above the project outputs were on the whole achieved with **moderate satisfaction**. A key success factor was the engagement of the communities early on in the project – allowing them to feel a sense of ownership of the IWRM structures and processes eventually developed. The PMU being located in the project area, staffed by a core team of key staff contributed to the effectiveness with which the project was implemented. This created visibility for the project in that region and allowed the PMU staff to remain in touch with the issues on the ground. It also contributed to them building relationships with the private sector in the immediate area – notably the Tronder hydro-power operators. The regular engagement of the local government officials from the districts also helped as this promoted uptake of the project initiatives and created a sense of purpose for the local communities. The local government resources are indeed meagre in the area of natural resources management (with the districts receiving conditional grants from central government of shs.3-4million per annum[3]) however they are permanent – outliving the project life-span and thus providing an important incentive to efforts to promote the sustainability of the project. A key component which aided the implementation of the project was the community exchange visits. These took place amongst different communities within the same sub-catchments; between communities from the two different sub-catchments as well as with another IWRM project – the Mara River Basin shared by Kenya and Tanzania where WWF has worked on IWRM since 2003. Several project stakeholders commented on the effectiveness of these visits in changing attitudes, solving problems and creating support. In the words of one of the WUG members "it gave us hope and something to aim for to see how other communities were doing it".

[3]Equivalent to 1,154 – 1,539 USD

A key issue which held the project back and prevented greater achievement of the project outputs is the slow start the project got off to. This delay meant that resources which were not applied in the first few years of the project were then lost, due to the financial requirements of the donor as funds could not be rolled-over to the next year. While this is an understandable element of due fiduciary diligence the net impact on the project was that resources which could otherwise have been made available for pilot projects of the WUGs were not applied. Another challenge for the project was the slow progress of the water sector reforms and their implementation and the fact that for the first two years of the project there was very little involvement of the central government's DWRM[4]. This made it difficult to design IWRM institutions as there was not clarity or feedback on whether these institutions would be supported in the long run. There was and indeed still is uncertainty about whether the current IWRM institutions formed under the project will be at the same level of scale and with the same extent of mandate as the institutions eventually adopted for the country as a whole, generating uncertainty and a lack of clarity. This situation was improved when representatives from the DWRM were stationed in the Albert Water Management Zone and assigned duties to engage directly with the project. This happened later than originally planned and reduced the efficiency of engagement with DWRM. At the same time, the slow progress of the water sector reform opens up opportunities to provide lessons from piloting and testing IWRM initiatives on the ground and hence provide input to the further process of evolving IWRM and its roll out in Uganda. However, this requires extensive contact with DWRM and documentation of results, impacts and lessons from the project.

5.3 Effectiveness of Project Management

The Inception Phase Review performed in 2009 identified problems with the project management structures at that stage, making recommendations to remedy this. Based on the findings of that review the project implementer, WWF Uganda, made changes to the project management structure. Since those changes were made, a picture of a project which is well run and thoroughly implemented has emerged. The current project team dispensed their responsibilities in a professional and efficient manner, with indications of good synergies achieved through team-work. This evaluation spent time with the full project team in the field, observing their interaction with project stakeholders such as local government officials, DWRM representatives, local communities and the private sector. What emerged was that amongst all these stakeholders the project team was well respected; with their opinion and inputs encouraged actively.

The project management team were able to respond to changes in the project such as shifting from including three sub-catchments to two and dropping the Transboundary portions; focussing the freed-up time and resources on the revised project plan. It is also evident that the project team sought to form links with other development initiatives in the region – for example benefitting from a project to train communities on the construction of low-fuel use cooking stoves. Aside from the human resources required for managing the project there were also the physical resources provided. The IT and communications systems were adequate and functioning, as was the transport and office premises of the PMU.

[4] It was only in July 2011 that offices of DWRM for the Albert Management Zone were stationed at Fort Portal. (Fort Portal is within an hour and a half drive from the PMU offices in Kasese)

6. EFFICIENCY IN PROJECT DELIVERY

6.1 Availability of Funds in Comparison to Project Purpose

The Table in chapter 5 has already presented the evaluation of each of the project's expected outputs and the degree to which planned activities were implemented. In this chapter the focus has been put on mainly two aspects: assessment of value for money; and the level of institutional efficiency in arriving at project results. As has been alluded to in Chapter 4, the SRCWRM project was efficient in delivery of its purpose because it was able to streamline its focus early in the project and concentrate efforts on 'what could be manageable' within time and budget.

Two key aspects were vital to its efficiency:

a) Reducing the number of sub-catchments from three (3) to two (2);
b) Dropping the Transboundary component in lieu of the reality that stakeholders on the DRC side were not readily reached and organized to engage in this process at the time. However, it should also be noted that removing this aspect of the project was to reduce the project ambition and avoid inefficiency by focusing on a scope where optimal results would be achieved. At the same time there was a lack of clear legal, policy and institutional frameworks to implement IWRM to guide this Transboundary component neither were there credible partners on the DRC side to engage in the process.

These two aspects enabled the project to deliver its purpose which was later helped by inclusion of a range of stakeholders from both the public and the private sector especially in the institutional development and developing of catchment management plans. Their contribution impacted positively on the purpose overall and in a way saved the project much needed time and resources. The sections below present the extent to which the project was cost-efficient and delivered value for money.

6.1.1 Analysis of Budget Lines: Budget Vs Planned Outputs

The project witnessed a slow start in 2008 to get up and running and a lot of preparatory work had to be undertaken. However, in 2009, there were internal project assessments that expressed concerns about the quality of project management at the PMU in Kasese. In March 2010, while a new manager was recruited there were three months of further delay during this management change process. As can be seen from the table below, it is only after 2010 that the projected posted higher fund utilization rates. Unfortunately the funding guidelines for Norad could not allow for unspent funds to be carried forward to subsequent years. It also important to note the project conducted external annual audits all of which were satisfactory in their assessment of financial records and accountability. Below is a table showing the level of utilization of funds.

Table 6.1 Utilization of Project Funds

YEAR	**BUDGET** NOK (US$ in parenthesis)	**ACTUAL** NOK (US$ in parenthesis)	**Difference** (Unspent funds)	% **UTILIZATION**
2008	NOK 996, 243	NOK 789,223.71	NOK 207,020	79.2%
2009	NOK 1,062,987.18($154,056)	NOK 846,826 ($126,738)	NOK 216,162 ($27,318)	79.6%
2010	NOK 1,470,743($252,717)	NOK 1,203,287 ($191,058)	NOK 267,456 ($62,659)	81.8%
2011	NOK 1,543,500($268,668)	NOK 1,525,899 ($256,566)	NOK 17601 ($3,063.7)	98.8%

YEAR	BUDGET NOK (US$ in parenthesis)	ACTUAL NOK (US$ in parenthesis)	Difference (Unspent funds)	% UTILIZATION
2012*	NOK 1,543,502($268,670)	NOK 821,787 ($136,965) By September 2012	-	-

*Actual expenditure figures still being compiled up to the third quarter

It is important to note that the WWF-UCO worked tirelessly to ensure speedy disbursement of funds to the project in response to complaints early in the projects of late disbursement of funds from Norad/WWF Norway released funds in the early stages of the project only at the end of the first quarter. After 2010, the PMU was satisfied with the speed and amount transferred to them making them efficient.

6.2 Value for Money Analysis

To assess the value for money for this project, two key aspects were put into context:

a) This was only a pilot project (a project on trial and error approach for IWRM in the river catchment);

b) The success of the project was not only to be achieved by the project itself but also the contribution of other stakeholders (DWRM, District Local Governments, Key Authorities and Organisations as well as community members).

Overall, the project was ambitious (but not overly ambitious) and operated with a very small budget of approximately US$1.2million. Nonetheless it was able to accomplish almost all it set out to achieve from inception review of 2009 till end. The value for money analysis presented is not on tying the financial resources to LFA expected outputs per-se but whether the project results generated its purpose overall in light of resources it possessed as shown by the table below:

Table 6.2 Value for Money Assessment

Intervention logic	Result (Nov 2012)	Was this Value for Money? (High, Medium, Low)
Output 1: Water resources, environmental and socio-economic baseline data for Semuliki catchment collected and analyzed by 2010	• Baseline studies on water resources & socio-economic & knowledge, attitudes & practices completed • Data being catalogued for uploading to database	Development of the database not yet complete but critical data is available that supported mapping and setting up of Water User Groups location map on either side of the river **MEDIUM**
Output 2: By end of 2011 Stakeholder awareness of IWRM and sub catchment water resource management implementation process enhanced at community, CBO, NGO, Sub-county and District levels.	• Activities around awareness-raising carried out – radio and drama shows. • Community meetings held. • Districts engaged in supporting communities in developing plans and setting up WUGs	The project completed planning and Institutional processes that helped set up Watershed Associations and WUGs. The evaluation noted the high level of enthusiasm of WUG membership and a high quality of organization (registration, regular meetings and a high spirit of voluntarism) **HIGH**
Output 3: By end of 2012, a capacity building plan for IWRM formulated and implemented	• CB plan developed • Trainers have been trained • WUG members trained in some topics	The CB plan proposed range of interventions, only some have been implemented **MEDIUM**

Intervention logic	Result (Nov 2012)	Was this Value for Money? (High, Medium, Low)
	• Assets were provided to district partners	
Output 4: By the end of 2011, two Sub-catchment water resources management plans developed and approved in the identified sub-catchments	• 2 sub-catchment management plans developed, ratified by 3 districts to be approved by the CMO by end of 2012.	Two sub-catchment plans developed, ratified and owned by District Local Governments. The district leader in Ntoroko for instance told the Consulting team that his district would prioritize financing activities of WUGs and setting us similar groups in two sub-counties where there are not – a pointer to the realization of both the importance and effectiveness of this process in IWRM. **HIGH**
Output 5: By end of 2012, Sub-catchment Water resources management plans in the two selected sub-catchments piloted.	• Pilot activities involving 13 water groups started in the 2nd half of 2012.	After setting up WUGs the project went on to support them to pilot some interventions (planting trees, fencing along riverbanks some income generating projects) for WUGs. While some seedlings are only 30cm tall, the WUG core teams were seen to be keen on ensuring their growth. In some aspects fences around the river banks were already firmly erected (see field photos at end of report) **HIGH**
Output 6: By end of 2012, at least 10 water user groups and a stakeholder forum established and functional as the Semuliki CMO	• 26 WUGs formed but 13 being supported after approval of their proposals • 2 Watershed Associations formed	There are two Watershed Associations and 13 WUGs have since received 50% of their budgets. Some yet to complete the process. The Watershed Associations will need to continuously be engage through meetings and sight visits. While they are active and 'running with the project', there is a bit of doubt if this enthusiasm will be sustained after the project life **MEDIUM**
Output 7: Knowledge and procedures from the Semuliki water resource management development processes documented and disseminated.	• Field reports, technical reports, meeting reports, review reports compiled and at every stage information was disseminated to stakeholders but not beyond to the national level	At all levels of the institutional development process, TAC members and representatives of stakeholder organisations received hardcopies and email of documentation on the progress on catchment conservation. There were also a series of workshops to disseminate information. **HIGH**

6.2.3 Monitoring and Evaluation

The project with direction and support of the WWF Norway commissioned an internal inception phase evaluation conducted by John Barker as an independent WRM expert. The inception evaluation revised: the log-frame; recommended reduction of scope of the project; and based on it, led to changes in top management. These became the turning point of the project overall. Key to other recommendations was the call for more engagement of local NGOs, private energy firms operating in the catchment and the district governments. Possibly most important was a recommendation to increase engagement with the central government via the DWRM, something which took place during the final two years of the project i.e from mid-2011 and in 2012. Focusing this aspect by the project after March 2010 was a success not for the project output realization, but also for eventual sustainability.

WWF-UCO with support of the WWF-Norway also commissioned a Mid-Term Review which was conducted in October of 2011 by Birgitta Farrington which also made important recommendations that were taken up by the project. These included among others development of capacity building plan, documentation and dissemination of IWRM awareness materials, implementation of the second KAP survey and improving the WWF UCO financial management system. These and other recommendations led to changes on the project log-frame and their uptake into the project concluding phase improved project performance.

In addition to these two undertakings, the project management developed quarterly progress notes and compiled annual reports which at the same time informed a continuous self-monitoring process. The PMU produced quarterly financial and progress reports which were eventually compiled into annual reports. Other than this there was no other concrete M&E system that tracked day-to-day operations of the project.

6.3.4 Risks identified and pro-activity to mitigate them

As illustrated in the table below, for each strategic output, the project had underline risks anticipated cognizant of the importance to devise proactive ways to mitigate them:

6.3 Mitigation of Project Risks

Intervention logic	Initial Risks /Assumptions	How the Risks were mitigated
Project Goal: The ecosystem functions of the Semuliki River catchment conserves water, biodiversity and other natural resources to meet basic human needs and sustain ecosystem functions"	• No major wars or rebellions • IWRM is accepted as the main management tool and implemented in the whole catchment.	• Peace prevailed in the catchment albeit talks of re-start of war eastern DRC. • IWRM is now up on the MWE policy agenda of Government
Project Purpose: Plans and structures for integrated water resources management functioning for at least two sub-catchments feeding the Semuliki River and processes recorded to guide national IWRM rollout by the end of 2012	• Stakeholder's willingness and resources available to support the implementing structures initiated and continued implementation of the sub-catchment management plans	• From the Central Government through the DWRM up to District CAOs and through partnerships with INGOs and communities, WWF benefitted from stakeholder participation

Intervention logic	Initial Risks /Assumptions	How the Risks were mitigated
Output 1: Water resources, environmental and socio-economic baseline data for Semuliki catchment collected and analyzed by 2010	• Data is readily available with the relevant institutions • The DWRM and WWF-UCO to agree on the data base standards	• Data gaps remain and this deficit needs to be addressed. The UBOS census survey data is inadequate. The NEMA survey report released in 2012[5] only came late into the project • The water resources assessment data & socio-economic baseline survey informed the stakeholder awareness & sub-catchment planning processes.
Output 2: By end of 2011 Stakeholder awareness of IWRM and sub catchment water resource management implementation process enhanced at community, CBO, NGO, Sub-county and District levels.	• Political will • Receptive stakeholders • Adequate funding available to support continued awareness raising	• Political will was provided and proved vital to the project success. Stakeholders that were engaged got passionately involved in their own ways to aid the project cause albeit funding shortfalls
Output 3: By end of 2012, a Capacity building plan for IWRM formulated and implemented	• Adequate funds for the implementation of the capacity building plan secured in time	• The capacity building plan could not be fully implemented due to finance shortfalls
Output 4: By the end of 2011, two Sub-catchment WRM plans developed and approved in the identified sub-catchments	• Timely stakeholder consensus and approval of the sub-catchment management plans.	• DWRM, DLGs CARE, PROTOS and other stakeholders were well engaged in SMPs development. In addition, the district local councils ratified the management plans.
Output 5: By end of 2012, Sub-catchment Water resources management plans in the two selected sub-catchments piloted.	• Central and local Governments are supportive of the implementation of the plans • Adequate funds secured for the implementation of the plans	• Albeit limitations in financing, the project was able not only to set up the sub-catchment plans but was able to pilot some projects for WUGs too.
Output 6: By end of 2012, at least 10 water user groups and a stakeholder forum established and functional as the Semuliki catchment management organisation	• Government of Uganda institutional reform on IWRM supportive.	• From the Central Government through the DWRM up to District CAOs there was evident commitment to IWRM, whether this happens in other districts when IWRM is rolled out remains to be seen.
Output 7: Knowledge and procedures from the Semuliki water resource management development processes documented and disseminated.	• Government of Uganda institutional reform on IWRM supportive.	

6.3 Project Management

6.3.1 Efficiency of Project's Human Resource Capacities and Organisation

[5]Uganda State of the Environment Report, 2010

The Project Management Unit (PMU) in Kasese worked closely with the WWF UCO with the guidance of Thomas Otim-the Conservation Manager WWF-UCO to achieve results albeit limitations in time and financial resources as the project ran to a close. The PMU had the following members:

i. Ivan Ebong- Project Manager
ii. Evelyn Busingye- Project Extension Officer
iii. Doreen Kabahuma- Projects Accounts Assistant
iv. Joram Luswata- Project Driver

While the project had a small budget compared to the mandate and scope of work, this did not limit the PMU's resolve to proceed with activities as planned. The evaluation noted that staff was well facilitated with transport to and from the office location as well as sundry which improved work and inter-personal relations which kept them 'motivated to carry on' as noted by one of the staff members.

6.3.2 Efficiency in management of the project operations and activities

While on the ground, facilitation as enshrined in their proposals, was provided to leaders of WUGs, districts resource personnel in the natural resources departments to aid their communication within the project area and with staff at the PMU. The most critical investment was facilitation provided to districts which included: Laptop Computers; Motorcycles and Cameras which facilitated work in the sub-catchments powered by trained ToTs who had been engaged prior to the setting up of WUGs. It is important to note that WWF UCO retained 12.5% of the project funds to support its project oversight and procurement functions on behalf of the SRCWRM project. There were instances of delays in procurement and delivery of needed materials as pointed out in the Annual audit reports, but not the scale that jeopardized the project delivery.

6.3.3 Handling of internal and external communication

Running a lean staff complement (of only four major staff) became a great contributor to effectiveness and focus and negated any unnecessary bureaucracies prevalent in highly hierarchical set-ups. The organisation ran a wwwfuganda.org web-based portal that allowed quick exchange of email on Ms Outlook vehicle that made internal and external communication efficient.

6.4 Partnerships with Key Stakeholders

6.4.1 Strengths and Weaknesses of Project's partnerships with stakeholders

The SRCWRM project management is commended for 'listening and working-with' other partners in the Sub catchment especially the private sector, district leaders (including at sub-county level) as well as local and international NGOs specifically UWA, Protos, CARE and IUCN. Leading this partnership effort was the Project's Technical Advisory Committee (TAC). DWRM Albert Water Management Zone office staff has worked closed to the SRCWRM project and keenly participated in the work done in the sub-catchments including the training of ToTs, the establishment of structures for WUGs, visits to pilot projects to assess the extent to which the sub catchment management plans are being implemented. The MWE set up the zonal office in Fort Portal making it easy for staff access to and engagement with the project. Other stakeholders with whom the partnership had began to bear fruit, were the industrialists in the area especially Tronder Power, Kasese Cobalt and Kilembe Mines and National Water and Sewerage Corporation (NWSC). In the beginning, the appreciation among these industrialists was low but with gradual engagement by WWF there is now substantial growth in focus for catchment protection and importance thereof. For instance, NWSC is now focusing on investing in water resources management for the first time in this catchment as a result of the awareness WWF has created through this project. The figure below shows the stakeholder organisation during the institutional development process for the setting up of the IWRM structures under the project.
However, there are some key weaknesses in the partnership with various stakeholders that remain:

a) There are already strong commitments from the partners (especially DWRM & DLGs) as part of the exit plan. The District Local Governments have committed in writing to support implementation of the plans & sustain interventions. This is good news for sustainability of the project at least in the medium term. The challenge however is the district natural departments receive very limited financing especially in areas in the sub-catchment where IWRM is a critical aspect of their development.

b) IWRM process is one that demands self-determination, voluntarism and time for appreciation of engagement to evolve. For partners to take up more active roles in catchment protection, it takes more than one plan or one project. Discharging of effluents into the river continues to occur due to limitation of alternatives for cleaner production (for instance Kilembe copper mines effluents being discharged into River Nyamwamba).

c) Districts remain powerless to enforce by-laws to halt over grazing, planting on river banks and deforestation. The law permitting tilling within 100 meters from the river banks is largely ignored. Pastoralists continue to over-graze and trees for charcoal continue to be cut. While partnerships are in place to move IWRM forward, the inability to enforce laws is a hindrance.

In spite of these weaknesses, partners in the areas testified to the importance of the project and one of these voices are recorded in the caption below:

Testimony from CARE about their Partnership with WWF SRCWRM Project

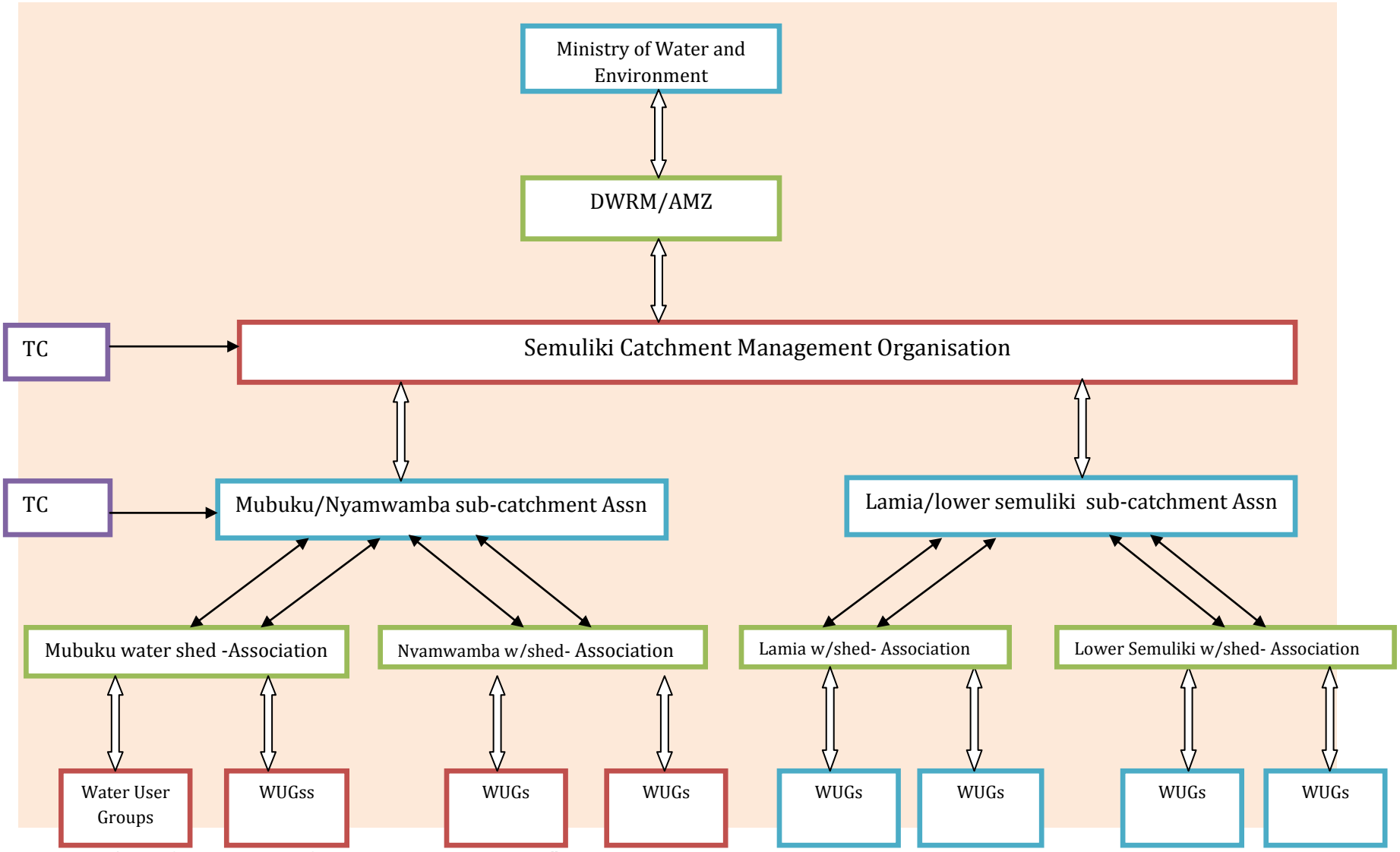
I have worked with this WWF project in Kasese through a partnership with CARE which is hinged on sharing experience, technical support and complementing each other in implementing Natural resource based projects. Key areas where we complemented each other were during the development and review of Mubuku-Nyamwamba Sub-catchment management plan. CARE had already got some rich experience in developing wetland management plans and building community based wetland management structures in Kasese, Kyenjojo, Kabarole and Kamwenge districts. This experience was used to review the Sub-catchment management plans and developing the Sub-catchment water management structures.

Working at catchment or Sub-Catchment level is so enriching as it provides a framework for handling social and environment related issues in the catchment. The management structures developed provided a platform where the various stakeholders/partners come together, analyze catchment issues and together develop strategies for addressing them. And because this platform brings together stakeholders including NGOs, it becomes easy to identify key areas that need interventions and to avoid duplication. The structures are uniting factor for the community in the catchment through which a common and big voice for advocacy on critical issues both on service delivery and environment is achieved.

Lastly, as a key lesson, effective management of Natural resources (Lakes, Rivers, Parks and Forests) will be achieved through participatory planning (involving several stakeholders) but also building robust structures to take on the responsibility of implementing the developed plans. And this has been demonstrated by this WWF Project. However, a follow-on phase of this project would be recommended to nurture the established catchment structures to a level where they can stand on their own. **(IrumbaDezidrius- Partnerships Staff for CARE International)**

It is important to note that there was there are no operational IWRM frameworks in Uganda around the time when the PMU was planning to set up the Catchment Management Organization. So the project staff together with other stakeholders especially Protos and CARE began 'brainstorming' about instituting a structure for implementing the project purpose. After holding consultative workshops, the structure below was formulated.

Fig 6.1 Overall representation of the Semuliki Catchment institutional structure



Note: DWRM/AMZ refers to Directorate of Water Resources Management - Albertine Management Zone

As illustrated by the figure 6.1 above, the structure for operationalizing IWRM in the Semuliki Catchment is composed of four levels namely;

i. **The Parish/community level:** It was agreed that in order to minimize the complexity of water user groups to be formed, the parish becomes the lowest level to consider as opposed to village level. These groups would be set up along rivers Nyamwamba, Mubuku, Lamia and Lower Semuliki;
ii. The various water resource user groups will elect committees that will identify 3 members to represent the respective committees at the water shed level;
iii. **Watershed level**; the members representing water user group committees will form an association at this level. The watershed association will have the role of overseeing issues of water resources management at lower levels. The association will also elect a committee that will in turn select members to represent the association at the catchment forum level. Each of the community water resource user group will be a member to this association;
iv. **Sub-catchment level;** At this level, the representatives of watershed association committees will be members of the sub-catchment forum. At this level, the relevant development partners, private sector, CBOs/NGO and District Local Governments will be members. The forums operation will be overseen by the TAC;
v. **Catchment level;** This is at a higher level comprising of representatives from the various sub-catchment forums and in this case, since the project is operating in two sub-catchments, they will all be represented at this level. The membership of the organization will also include the DWRM and the line ministries. The organizations operations will be overseen by the TAC.

The management committee at each level is charged with planning and implementing the decisions of the organisation. It will also supervise and monitor the agreed upon activities by the organisation.

7. EVALUATION OF PROJECT'S IMPACT

7.1 Impact made by Documentation and Dissemination of Project Experiences

As the project has progressed over the five years of implementation there has been a large amount of material and documentation disseminated amongst communities in the two target catchments. In discussions with community representatives, part of the Water User Groups (WUGs), it is evident that there is an awareness of the core issues around environmental conservation and good water management practice – speaking about issues such as sedimentation, stream-bank erosion, flood-plain encroachment, water-intensive tree species (such as eucalyptus) and pollution control (from sources such as palm-oil extraction and clothes washing). This experience has been disseminated by the project team, with inter-district learning taking place between the various WUGs – something which members spontaneously made reference to. What is still needed is a more strategic-level analysis of the contribution of these actions to IWRM in the various parts of the catchment. The links between upstream communities and downstream water users (such as the hydro-power operators) is a key feature of IWRM; finding ways to modify the behaviour of one group to the advantage of another – thus forming links between them and integrating their actions.

7.2 Impact on Water Resource Management

The responsibility at District level for water supply and sanitation lies in the department of Works and Technical Services, with little focus on catchment management and planning. At community level there are Water User Committees (WUCs) with the responsibility to manage water points and supply the community with drinking water services. For this they are allowed to charge a fee – assuring them of a steady income. However they have no mandate to perform catchment management activities. Now with the formation of the WUGs and the Watershed Associations (WAs) there is recognition by the Local Government that the two functions – of water services provision and catchment management – are interconnected. At present an institutional review of the water resource sector is being performed by the DWRM, which will make recommendations on how, or whether, these institutional roles should be combined. During interviews the CAO of Ntoroko District emphasized that as Natural Resources Ordinances are developed at district level they should recommend the formation of WUGs in sub-counties where they do not yet exist – in that way playing a role in catchment management. The CAO of Kasese District saw the need for exploring opportunities for payments for ecosystems services protection – making possible transfers between various water users.

As Uganda has not yet implemented a decentralized model for water resources management nationally it is too early to observe impacts on the full catchment scale – with integration and assessment of all water uses. However at the scale of the sub-catchments where this project has been active it is clear that the links between water-use and catchment conservation are becoming better understood. For instance during the focus group meeting with representatives from the private sector, it became evident that there is great appreciation by them for the project. As communities upstream of the water-intake points for these companies become more engaged in conserving the catchment so too, does the quality of water improve – mainly through reduced sediment and debris levels. Representatives from Tronder Power and KCCL stated that this is an important factor to consider in the operation and maintenance of their hydro-power works and blockages caused through debris or through having to remove sediment lead to costly shutdowns in operation. The representative from the NWSC made similar points about preserving the quality of water in the catchment from which they source their supply for the Kasese municipality. Each of these companies are now active in engaging with the WAs and have invested financial resources in catchment conservation – such as Tronder donating 10,000 seedlings to communities in their catchment to plant for river bank stabilisation.

As Uganda embarks on a process of decentralization – of government generally and of water resources management specifically, it becomes important to draw lessons from the Semuliki experience. The review

team met with the DWRM in Entebbe, where it was confirmed that the WWF Semuliki project is viewed as a test case for the establishment of IWRM structures in the rest of the country. The Inception Evaluation of this project, performed in 2009, recommended that "participation and engagement of DWRM at Pilot project level needs increasing", this was motivated by the need to show political support to the pilot project as well as to learn lessons for application in other parts of Uganda. Since that recommendation was made, a DWRM technical support office for the Albert Water Management Zone was established at Fort Portal, with an officer assigned to the WWF Semuliki project. The evaluation team was accompanied by two DWRM officers during the evaluation mission, where it was evident that the DWRM had visited several of the communities on a regular basis. In addition the support of the DWRM to the district governments was appreciated by the CAOs.
As described above, a study is currently being conducted to investigate institutional models for IWRM in the country, with lessons learned from this project forming a direct input. Refer to the section on Lessons Learned for the key findings arising from this evaluation. When drawing on the lessons learned two points on how the project was designed and implemented are worth bearing in mind:

a. That the project was able to influence not just local leadership thinking on the new concept of IWRM but also went further to let this trickle down to the sub-county levels and households. This in so doing enabled there to be a holistic embrace of the IWRM concepts in theory and practice right from representatives of DWRM to the household WUG members – thus working with stakeholders at multiple levels;
b. The project as a pilot was a trial and error undertaking with nowhere to reference. So it should not be taken as a blueprint during the roll-out to other catchments whose on-the-ground realities will most probably be different from those of the Semuliki Catchment – these local conditions will dictate the approaches and methods which are viable in each case.

7.3 Financial and Non-Financial Benefits on Community Livelihoods

The project does not contain explicit goals or outputs targeting the development of financial benefits for communities. However it was realized by the project team that if the actions promoted by the project were to gain traction with the communities, there would be need for some degree of tangible benefit to the community. This is also an important point for promoting the sustainability of the water management structures established under the project – given that long term external funding (such as from government departments) is not likely.

The WUGs formed under the project represent avenues for organizing various socio-economic development initiatives for the community, having established trusted management structures, rules of governance and bank accounts. This means that the WUGs can play a role in receiving and disbursing funds as well as implementing activities. Under the current project, 13 of the 26 WUGs established had their actions identified under their respective catchment plans funded as priority pilot projects. Similarly, two additional WUGs from the upper catchment of the Mubuku River were funded by the WWF Energy project. These projects, chosen by the communities, all have dual aims – to contribute to catchment conservation as well as to provide tangible benefits to the communities (see table below for actions in the four WUG areas visited for this evaluation). This includes trees planted in buffer zones as well as other off-river areas which can in the future be harvested sustainably. These trees help to stabilise the river banks and take pressure off grassland areas by providing alternative sources of income, such as through the harvesting of coffee.

Table 7.1 Socio-economic benefits for WUGs

Water User Group	Socio-economic benefits
Karusandara	Trees planted in buffer-zones which can be harvested sustainably for fuel-wood and other uses, Coffee trees planted off-river which can provide a cash income
Bugoye	Trees planted in buffer-zones which can be harvested sustainably for fuel-wood and other uses, Trees planted on steep slopes Training in making efficient stoves – reducing fuel-wood requirements and freeing time for women to devote to other tasks

Bugando-Nyansoro	Fish farming project which will provide a source of protein to community members
KakukaNyankonda	Palm-oil presses constructed Trees planted in buffer-zones which can be harvested sustainably for fuel-wood and other uses, Trees planted on steep slopes

See Annex 1 for the complete WUGs activities that had been planned.

These projects are in their infancy – seedlings are no more than 10 cm high, fish farming ponds are not finished and the palm-oil press has only recently started operation and does not charge users for the service. However the communities displayed a willingness to adopt a long-term view to the benefits to accrue, recognizing that these investments on the ground will benefit them in the years to come.
Of more importance is that the institutional structure now exists in these communities to channel future development projects – whether from development partners or from the government. The management committees of the WUGs have received training in writing project proposals as well as skills such as project management and implementation, opening the possibility of attracting future funding. In doing so the communities have strengthened their capacity to articulate their needs and objectives at the political level; increasing their "voice". Within the communities there has been a similar process with the WUGs constituting that their management committees (consisting of nine members) must be at least one third comprised of female members. It should be noted that a balance needs to be struck between community development actions (of direct interest to members of the community as they improve their livelihoods) and the broader range of IWRM institutional development actions. Some of the latter may be important for the long-run establishment of IWRM – but might not hold direct tangible benefits for the community. In our assessment this project has done a good job of seeking to balance these – seeming to centre in-field action on livelihood improvement while maintaining the IWRM-red-thread throughout. This balancing act needs to be maintained in order for the WUGs to remain true to their core mandate of contributing to improved water management in the region.

7.4 Assessment of Impact on Social Change

Social change is, by definition, a slow process as it deals with changing long-established patterns and replacing them with a new approach; something which may hold risks for individuals. Individuals pursue actions to maximize their welfare – benefitting themselves and their families, but possibly leading to unintended harmful consequences for society at large. For individuals to accept that they will need to change their actions at a cost and risk to themselves in order for future benefits to society to accrue; takes intervention in the form of awareness-raising, knowledge-building and the provision of incentives. In other words, a lot of time needs to be spent working directly with individuals to change their minds about a specific issue facing the community. Once this takes place, it is necessary to develop actions which individuals commit to, in order to address the issues and deliver benefits to the group. Finally the actions need to be implemented – visible as changed behaviour. If the process is sufficiently inclusive the new mode of behaviour becomes a social norm – with a public expectation that individuals will adhere to it. The opinion of neighbours and other community members becomes a mechanism for enforcing adherence to the newly established behavioural patterns, transcending the desire of individuals to take purely self-interested welfare-maximising actions.

The DWRM commissioned a study conducted by COWI – a consultancy firm which culminated into the design of the report titled: 'Operationalization of Catchment-based WRM' in Uganda. Uganda's National Environmental Action Plan (NEAP) prohibits cultivation and other activities in the riparian zone – defined as 100 metres from the river banks. This provision is supported to be enforced by the National Environmental Management Authority (NEMA) but is largely ignored and not enforced due to the limited financing for country-wide oversight. The result is that large areas of river bank are cultivated right to the edge, leading to erosion of the banks in times of heavy rainfall and high flows. Erosion of the river banks leads to negative impacts for the society at large – greater sediment in the water for downstream users, flash floods and shifting of the river course amongst others. Previous efforts in the Semuliki catchment to change land-use practices and leave a buffer zone along the banks of rivers have largely failed. For instance under the Nile Transboundary Environmental Action Project (NTEAP), there was an effort to create buffer zones along the

banks of the Semuliki River in Ntoroko District by establishing fenced-off sections. These efforts failed as communities were not sufficiently engaged in deciding on and implementing the actions, thus the situation reverted to cultivation and land-use activities taking place right up to the banks of the river – individuals maximizing their own benefit to the detriment of society.

The project under review learned these lessons and proceeded to engage communities very early in the process. As described earlier the project followed a step-wise approach to establishing WUGs, starting with awareness-raising, moving on to identifying key issues, developing plans to address these issues, establish the groups and then piloting activities. The advantage of this approach is that it established a cause-effect relationship in the minds of community members about their actions and the impact on the water resources of the catchment. Once awareness of the issues was spread amongst community members there was a general desire to take action to rectify the situation. WWF did not introduce an externally-developed plan to the communities – the community members developed the catchment plan themselves – facilitated by WWF. Only once the plans (with attendant actions) were developed were the WUGs formed – becoming vehicles for implementing the actions of the plan. The downside of this approach is that it is time-consuming – taking 18 months to two years from initial community engagement to the point where a WUG is formed. Thus most of the WUGs have been formed in the last six months of the project, and fifteen have been selected by WWF to pilot activities from their respective plans.

The result of this approach seems to be bearing fruit; according to the KAP study currently being finalised (a draft version was consulted for the writing of this report) there is a very high acceptance (above 90 per cent in the three project areas studied) of the need to modify behaviour in order to improve catchment protection. Some of this attitude may indeed pre-date the current project as the KAP study found a range of traditional systems for promoting conservation – such as prohibiting land-use activities close to water sources and river banks and not polluting water sources. But certainly the project has managed to tap into such traditional attitudes and has succeeded in getting them better articulated at community level – laying the foundation for enactment.

Given the long period of awareness-raising and capacity building which preceded the formation of the WUGs, it is not enough when looking for indications of impact to only consider the actions on the ground now taken by the communities. The river bank restoration, buffer-zone and afforestation work is all in its infancy, having been initiated around September of 2012. However, that is to miss the large amount of preparation and foundation building work which has preceded these activities. Having visited four of the WUGs during this evaluation mission where the evaluation team spent time speaking with community members it becomes evident that the commitment to changed action runs deep. There is clear recognition that individuals need to modify their actions in order to benefit the greater society and the environment generally. Group members contribute time and in some cases financial resources to the groups. Naturally there is an element of expectation of gaining future tangible benefits from the groups – such as having access to trees which can be sustainably harvested for fuel wood or benefitting from fish-farming. But that is the point – livelihood initiatives need to go hand in hand with environmental conservation actions to make them sustainable. Thus in the estimation of this review the communities which have participated in the project have fundamentally changed their attitudes to catchment preservation –and are in the process of demonstrating this through their actions. An indicator of this is that the types of projects being undertaken as pilots in the various WUG areas differ in important ways – changes being driven by differences in topography, hydrology and rainfall. Communities on the floodplains have opted to focus on establishing buffer zones along the course of the river in an effort to stabilise the river banks. Communities living upstream of them in terrain with steep hills have focussed on trying to convince people to plant less water-consumptive tree species on the steep slopes as well as reducing fuel wood use. These communities are both located in the Mubuku River sub-catchment where siltation and seasonal water scarcity as well as flooding are problems. On the other side of the Ruwenzori Mountains the communities in the Lamia River sub-catchment have focussed their attention more on fish farming; as water scarcity as well as de-forestation is less of an issue. Another WUG in this area has opted to reduce pollutants flowing into the river from pal oil extraction through constructing well-designed palm-oil presses. The fact that different communities have opted for different key pilot projects would indicate that there is a good understanding amongst these WUGs of the specific threats and issues associated with catchment conservation in their part of the basin.

There would also appear to be a positive change in the attitude to including women in decision-making structures. Each of the WUGs visited could provide details on the involvement of women in the project, reflecting the constitutional provision of the groups to have at least a third of the leadership of these group as women. In a traditionally patriarchal society these steps represent an important shift towards achieving equality of opportunity between men and women; enhancing welfare for both.

8. SUSTAINABILITY AND REPLICABILITY OF PROJECT RESULTS

8.1 Project Exit Strategy

The exit strategy document prepared in 2011 lacked concrete plans and strategies sufficient to ensure sustainability of the project by various actors. For instance the document (which was developed late in the project period) did not provide actionable tasks for stakeholders, how much the actions would take and what would be the risks and loss factors. Nonetheless, the document served the purpose of ensuring that the focus is put on attitudes and behaviour change which take long to generate desired impact on resource conservation. While there is still little time left, work can be put in strengthening the management structures for WUGs to sustain on-going initiatives in the sub-catchments.

8.2 Likelihood of Continuation of Initiated Conservation Activities

The SRCWRM project was mainly engaged in implementing seven (7) core conservation activities as elaborated by subsection 3.3.3 of this report. Below is an illustration of the likelihood that these activities will continue after the project lifetime (motivations for assessments appear in the discussion below the table):

Table 8.1 Likelihood of sustainability

Initiated Conservation Activity	Continuation Likelihood (1-3) Least Likely (1); Likely (2); Most Likely (3)
1. Use of data on Water resources, environmental and socio-economic aspects for Semuliki catchment area	Likely
2. Stakeholder awareness of IWRM and sub catchment water resource management implementation process enhanced at community, CBO, NGO, Sub-county and District levels	Most Likely
3. A Capacity building plan for IWRM formulated and implemented.	Least Likely
4. Sub-catchment water resources management plans developed and used in the identified sub-catchments.	Likely
5. Sub-catchment water resources management plans in implemented	Likely
6. IWRM implementation structures established and functional	Likely
7. Knowledge and procedures from the Semuliki water resource management development processes would increase.	Likely

As shown by the table above, because of the project design and the involvement of the local governments, private sector and communities (and subsequent set up of the water user groups) have 'grounded' the project and left behind a foundation that will sustain Semuliki River catchment conservation at least in the medium term. Because the capacity building plan was not fully rolled out, it consequently got 'the least likely' core on aspects of the project will most likely be sustained. Above all, there has been a bold attempt to raise the

profile of water resource conservation up the policy agenda at the district level as well as awareness creation at the grassroots (through radio talk shows, drama and WUGs whose impact will go a long way in creating social change, appreciation of catchment management issues and is most likely to be enhanced further-on after the project.

8.3 Key Constraints to Sustainability of Project Results

There are five major constraints that pose a threat to the sustainability of the project results and impact so far made by the interventions:

a) Increase in both human and animal population: Uganda is among the world's fastest growing populations with an average of seven (7) children per home and an annual population growth rate of 3.4% per annum. Most of this population is poor with 2-3 Ugandans out of 10 below the poverty line and heavily dependent on natural resources for livelihood (subsistence farming with rudimentary tools and techniques to till the land; dependence on wild trees for charcoal and firewood and wild plants and grasses for grazing and medicine). Having a large family size is still preferred among communities in the catchment and the attitude towards reducing fertility rate remains low. This is exacerbated by encouragement from cultural leaders that people should produce more children as their labour force and for their security. In addition, there is an ever increasing number of both domestic and wild animals in the catchment causing soil erosion, silting and other forms of catchment degradation linked to overgrazing.

b) Negative Cultural practices among some communities. There are still negative cultural practices that contravene the spirit of catchment protection among some communities. For instance, some cultural practices require bathing in the river to cleanse evil spirits of death after departing of a loved one. Others believe that bathing in the springs is medicinal and cures a host of ailments. The project design was cognizant of the fact that it takes time for such cultural norms to change.

c) Industrial activity that increase emission of effluents into the river. While Kilembe Mines, acknowledges the importance of catchment protection, still effluents from their industrial action remain a threat to the River. Similarly small and domestic firms like local beer breweries still pour ethanol and related wastes in the catchment. Lack of clean production technologies will continue to be a threat to the catchment but projected to decrease as they engage possibly with other conservation players in the catchment.

d) Limitation in resources to sustain activities of WUGs. While there is commitment from the NDP and the District Development Plans to focus more on natural resource management, still allocations from the national budget to districts remain meagre. For instance, Ntoroko districts received a paltry shs.4million[6] for this department – sufficient only to run office operations and little for on-ground work. Sustaining the effort of WWF in the catchment will require more financial resources since on-the-ground mobilization work is a costly undertaking.

e) Low Policy Enforcement

For the most part, Uganda's environmental policy framework remains largely 'strong on paper and weak on enforcement'. While deforestation and land degradation continues, there is little action to apprehend and repudiate the culprits. The environmental police that was recently instituted is lean in structure to cover the whole of Uganda. While water and natural resource abound, there is a tendency of laxity on their protection. The level of their degradation is still low on the national development platform as national priorities have remained: energy, roads, security, health and education over the last 20 years.

8.4 Political Commitment to Sustain Project Activities

The evaluation commends the technical leadership of the district councils and the CAOs in the project area for their keen focus and support to this project. There is evident appreciation of the importance of the project purpose overall and this is vital for the medium term sustainability of the project activities. For instance,

[6] Equivalent to USD 1,538

Ntoroko district CAO noted that in the financial year 2013/14, efforts will be put in ensuring that sub-counties where the WUGs had not been set up also be set up using the district department budget for natural resources.

8.5 Evidence of Utilization of Project Approaches by Other Organisations, Partners and Communities

The project has now established community-based structures for natural resource management. These structures are also possible avenues for a whole range of development initiatives from various other partners including government. This point was made by the CAO of Ntoroko district describing how the WUGs have become an implementation channel for activities they plan. Additionally private sector water users such as Tronder Power have used the WUGs to establish tree planting projects in the catchment upstream from them.

8.6 Replication and Magnification of Project Results across Uganda and beyond

The evaluation identified three major ways in which project results can be replicated and magnified across Uganda and beyond.

a) Uptake of lessons by the Uganda Government through DWRM. Through its MoU with WWF Uganda the DWRM supported this project with intention to 'test-out' approaches to IWRM in Uganda and learn lessons to guide further roll out national-wide after 2012 beginning with strengthening the national IWRM guidelines now in draft form.

b) Continuation of work done through WUGs by Districts Local Governments. Districts of Kasese, Bundibugyo and Ntoroko expressed desire to replicate and extend further the project reach of WUGs as structures they recognize as effective and 'catalyst' to the movement and mobilization of communities to embrace IWRM.

c) Nile Basin Initiative and possibilities for engagement with CIWA

After the completion of the Nile Basin Trust Fund (NBTF) in December 2012, there is now a possibility that WWF Uganda can present a proposal to sustain activities of this project under the Cooperation on International Waters in Africa (CIWA) which will replace the NBTF after 2012. CIWA will be a continent-wide trust fund but with a River Nile window through which the Semuliki River Catchment interventions can showcase their innovations.

9. LESSONS LEARNED

9.1 Lessons from Piloting IWRM Practices in a Community-Context

Some key lessons can be learned about the process of rolling-out IWRM at a community level. These lessons are of relevance to any IWRM initiative – in most parts of the developing world, but are primarily intended to enrich the development and implementation of IWRM in Uganda and are thus developed from that perspective.

- ***An incremental approach:*** A project such as this takes time; as it involved developing new structures from the ground-up as well as changing well-established patterns of behaviour. From the outset it is important to make provision for the time it takes to create awareness, build capacity, establish structures and then to pilot activities. Most of these outputs are incremental – building on and depending on each other and it is thus not possible to operate actions in parallel. For instance, trying to run demonstration activities such as tree-planting and buffer-zone creation in parallel with the awareness-raising phase runs the risk of the activities becoming ad-hoc and once-off. It is also likely that these activities are seen by the communities as outside interventions, thus militating against up-take and sustainability. In essence, it is desirable (from an efficiency perspective) that some activities be identified to run in parallel with the early foundation-building phases of a project; but in reality it seems necessary that a step-wise approach be followed. The *process* of building IWRM institutions is in this case more important than the final *product* alone.

- ***A staggered approach*** to working with various communities is good. As a project starts in one or more sub-catchments some communities can be identified as "early adopters" of the principles introduced. These could be communities with existing social institutions, or that are experiencing a pressing issue around water resources management – water scarcity, water pollution, flooding etcetera. The project could then focus initial actions on these communities and aim to make some early headway in the project. This serves two key purposes – first it allows the project implementation team to learn from mistakes and unintended consequences; second it is possible to use these communities as demonstration cases for later communities.

- ***Seeing is believing:*** Linked to the above it is important to promote learning between community groups. Study tours or exchange visits to other communities in the same sub-catchment, communities in another sub-catchment as well as to other projects in other parts of the country or in neighbouring countries can play a catalytic role in raising awareness and building support. Positive impacts of such visits include building support for the initiative by seeing how it operates in another area, highlighting problems and solutions thus promoting learning, signalling to the communities that the process is large-scale and not only involving them. These benefits potentially flow both ways – to the community doing the visiting as well as to the community being visited.

- ***Poverty eradication:*** When establishing IWRM implementation structures, it is essential that they are linked to livelihood generation activities. There have to be tangible benefits to a community for them to engage in resource protection – it is not enough to simply aim for benefits to the environment at large. These livelihood improvement activities should be an integral part of the whole process of establishing IWRM structures as they contribute to the initial buy-in as well as to sustainability. This is not to state that projects need to disburse large amounts of funds to communities – rather what should be aimed for is a structured approach whereby the communities can mobilise their resources (time, labour, know-how) to be able to make good use of small amounts of seed funding which may be available. To improve the welfare of the people engaged in these activities becomes an especially important incentive for catchment conservation in situations where communities are not being impacted directly by a drop in the quantity or the quality of water, such as in many parts of the Semuliki catchment. In situations where communities are being negatively

impacted through drops in quantity or in quality of water or recurring issues such as floods it is easier to generate support for catchment conservation.

- ***Sharing of costs and benefits:*** In any catchment, there are beneficiaries from catchment conservation and those who bear the cost. Linked with the above point, it is important to establish a link between those who accrue the benefits and those who live with the cost; done by looking at opportunities for cross-subsidisation or payment for ecosystem services. For instance in the Mubuku sub-catchment, the private-sector water users consulted in this evaluation (Tronder Power, KCCL and the NWSC) all benefit from catchment conservation – reduced debris and sediment lower the costs of hydro-power generation as well as of water treatment. Representatives from these stakeholder groups expressed an interest in supporting (financially or by other means) catchment conservation activities upstream of them, through actions such as buffer-zone creation and erosion-control. These actions reduce costs and risks to their operations, something which they are willing to pay for, however there needs to be a clear framework of what they can expect for their investment. The WUGs with the support of the district governments could possibly represent such a framework, providing assurances to those participating in catchment conservation that their investments are effective and beneficial.

9.2 Lessons for DWRM on the National IWRM rollout process

Based on the outcome of this evaluation there are some specific lessons-learned which are of relevance to the Government of Uganda as they develop the IWRM process for the rest of the country.

- ***At a national level there is an urgency to develop an institutional framework for IWRM at the local level.*** The various IWRM institutions, including water user groups, catchment associations and others, need to have clearly defined roles and mandates supported preferably in the Water Act being revised (as was the case of the Beach Management Units under the National Fisheries Policy 2004 and Fisheries Bill 2010). There is a risk that the institutions which have been developed under the Semuliki project are not supported in the future configuration of IWRM institutions in the country, thus before proceeding further with entrenching them, it is important that there is clarity on what the future institutions would look like. A key issue to consider in this regard is scale – at what level would these groups operate? At present the WUGs each comprise members from several communities (villages), and each WA contains three or four WUGs, but it is not evident whether this is the desired configuration for the rest of the country. A key lesson here is that WUGs need to be big enough to be able to access sufficient internal resources – by having a large enough and diversified enough range of water users as members. This also reduces the number of groups which local and central governments need to interface with, possibly leading to more effective cooperation. The DWRM would also need to assess how much resources they would have to devote to supporting future projects.

- ***The WUGs need a mandate to perform catchment management duties and charge for them.*** This would open possibilities for them to raise funds locally and act as guarantors of payment for ecosystem services actions as described above. The existing Water User Committees (WUCs) depend on a clean water resource being available, thus there should be a formal institutional link between these. It may not prove effective to merge these organisations as the WUCs would typically operate over a much smaller scale than a WUG. If the WUGs are properly constituted and can take appropriate actions for catchment conservation then they should be able to levy a fee for this service on water users such as the WUCs as well as the private sector through payment for ecosystem services or other avenues. For this to be feasible the institutional design of these organisations needs to be well thought through, making the planned study by the DWRM on this issue pressing.

- ***In light of the limited financial and human resources available at both central as well as district government level it is preferable to roll-out IWRM in one area at a time.*** The lesson of the Semuliki project is that it is a slow and resource-intensive process to develop, and then establish IWRM institutions and one with several pitfalls along the way. Focussing on only a few regions (however defined) at a time and securing successes there is preferable to a large-scale process which is ultimately under-resourced. This point would also be of relevance in the international transboundary dimension. First focus on establishing

structures on the ground in Uganda before trying to form cross-border mechanisms. However the ultimate aim should always be to manage the catchment as a whole – thus eventually establishing appropriate links across the political boundaries. A key lesson from the Semuliki project is that it could take upwards of five years to establish effective and sustainable IWRM structures in basins where activities are starting from scratch.

10. OVERALL CONCLUSIONS AND RECOMMENDATIONS

The degree of attainment of the project goal (*The ecosystem functions of the Semuliki River catchment conserves water, biodiversity and other natural resources to meet basic human needs and sustain ecosystem functions*) is not possible to assess at this stage. The goal lies at the level of project impact which occurs as a result of the attainment of the preceding parts of the results chain – that is inputs, activities, outputs and outcomes. To make an assessment of the effectiveness in reaching the project goal it would be necessary to make a follow-on evaluation in 5-10 years after the project has closed as this is the time which would be needed for the various catchment conservation measures (such as buffer zone creation, river bank stabilisation, erosion control and pollution reduction) to make a visible impact. Quite simply, the trees and fences which have been planted by WUGs to perform these functions need time to grow!

10.1 Conclusion and Overall Assessment of the Project

SRCWRM project was highly relevant to the needs of water resource management and catchment protection of the Semuliki River Basin. The aspirations of the project were in line with those of Millennium Development Goal (7a 7b), the National Development Plan (NDP) and the National Water Policy (Cap 152). The project has been successful in piloting IWRM interventions and which provides a strong basis for replication of its institutional mechanisms for possible roll-out to other catchments across Uganda. It is very important to note that this success was achieved albeit this being a pilot 'trial and error' project that started with limited options to reference to and 'almost from scratch'. The highlight of the project was its ability to adopt a participatory multi-stakeholder approach in the design of sub-catchment management plans that drew inputs from key players (private sector, media, CSOs and public sector). This was vital not just for implementation of these plans but also for sustainability. Indeed at the closure meeting for the project on November 27th 2012 in Fort Portal, stakeholders (especially Local Government leaders) were keen on ensuring that work already achieved is sustained. In light of the above, the evaluation rated the achievement of the project as 'moderately satisfactory'- the second highest ranking of the evaluation. Below are the overall recommendations from the evaluation. While they are presented in different sections, some remain relevant across all levels (PMU, WWF UCO and WWF Norway).

10.2 Recommendations for Project Management Unit

The evaluation applauded the Project Manager, Mr. Ivan Ebong and his team in the WWF Office, in Kasese for steering the later stage of the project to achieve results in an efficient and effective manner following a slow start of the project. In the period post-2009, the in-coming manager worked 'with realization that there was catching-up to do'. The PMU made best use of resources available and created very useful partnerships with stakeholders which contributed greatly to eventual success of interventions. Based on findings and lessons learned, the evaluation presents the following recommendations especially for PMUs of this nature that will be set up elsewhere in Uganda:

a) Since IWRM remains a new phenomenon, awareness creation is a panacea for any project interventions

Uganda is blessed with lush green vegetation and water resources creating an imagination among most people in the society that 'these resources would be there forever'. Efforts to sustainably manage these resources do not get to shoot high on the policy agenda. Consequently, IWRM in Uganda has been

'appreciated but not prioritized'. For IWRM PMUs it is recommended that initial focus be put on awareness creation and community sensitization before setting up structures to institutionalize IWRM operations in any catchment area.

b) Set-up a database early in the process since all subsequent processes will dwell on its robustness

Without data planning programming and implementation remains sketchy. All planning, setting up of structures as well as implementation for IWRM requires a swift easy to use database management that informs the process. The water resources assessment data & socio-economic baseline survey informed the stakeholder awareness & sub-catchment planning processes but late in the process. Had the dataset been set up so early in the project life, its contribution to project effectiveness would have been much greater.

c) Multi-level stakeholder engagement is very effective in unleashing ownership and broad participation

Related to point (a) above, increasing the awareness about IWRM is vital to creation of social change required to cause action on aspects of catchment protection. Setting up and maintaining a stakeholder platform that sustains engagement of different IWRM players is key to the sustainability of such a project. At the point of evaluation the project enjoyed 'goodwill' from a host of stakeholders. But it is important to note that this 'goodwill' can diminish if the 'apparatus' that generated it falters. For instance, micro hydro power stations like Tronder Power need to see rising financial returns from their investment. While they realize that this is heavily dependent on upstream catchment protection, if their investments/effort on this is not being reinforced (or is compromised by other internal or external actions of the others, up-steam) their enthusiasm to participate in IWRM may be jeopardized. The task of maintaining active engagement of all stakeholders is a difficult but necessary one to ensure continuity and sustainability of the IWRM process. It is recommended therefore that the District leadership and the DWRM representatives in the Albert Water Management zone constitute a framework to ensure that all stakeholders the project put together remain actively engaged in the IWRM process after 2012.

d) Develop plans and project material but also document and widely disseminate knowledge, best-practices and processes of plans development and implementation

The PMU was deliberate in sending out information on sub catchment management plans and TA related data to various stakeholders at every step. This was done in an attempt to share knowledge and disseminate as much information as possible. Development of simpler IWRM awareness messages, pictures and t-shirts (preferably to WUG committee heads) in the local languages is recommended for similar projects elsewhere.

e) Technical Assistance is a continuous process and should be structured to cut across all aspects of the project implementation

The evaluation appreciated the commendable work done on development of conceptual guides to the institutional development process in the Mubuku/Nyamwamba and Lamia/Lower Semuliki sub-catchments. In this process, technical assistance (TA) was provided first to a set of ToTs who later supported work of WUGs formation and capacity building. TA was also provided by district leaders and other stakeholders but this was not substantial (both in content and frequency). If more resources are availed TA to both ToTs (who do work in communities with WUGs) and district leaders, private sector (including media); this would bolster the strength of a 'critical mass' technically to independently engage in implementation of catchment management plans with less PMU intervention. In addition, while the capacity building plan was only partially implemented (and remains largely in a penultimate final draft shape), it should look at involvement of national local and development partners who can potentially support some aspects of it. GWP and GIZ for instance were mentioned as such partners who have already done similar technical assistance in water catchment protection in Africa and beyond.

10.3 Recommendations for the Central and Local Governments

After the presentation of preliminary findings on November 27 2012 of this final evaluation, it became clear that the Uganda Government through the DWRM offices in the Albert Water Management Zone and Local Government leadership were to take over from where the project has ended. They are the ones to sustain the institutional development process and the functionality of Watershed Associations and WUGs. The key recommendation made by the report is that for IWRM to take place three important facets must be in place- in what was referred to as a 'triple helix constellation' demonstrated in the figure in-set.

a) The Line Ministry to provide guidance through National Policies (in this case MWE) with funding and technical support from development partners;
b) The Local Governments which under decentralization policy are supposed to implement Government interventions under the Natural Resources Departments; and who implement under a multi-stakeholder effort involving CSOs, the Private Sector, Media houses, etc; and
c) Communities who are galvanized to implement IWRM projects through Watershed Associations and WUGs.

Whereas there is a linear relationship between these three actors (from top to bottom), the implementation of IWRM requires participation of all players in a manner that the failure of one will compromise success of the entire system. In several respects the most vulnerable of these three groupings is the community-based institutions such as WUGs. They don't have clear funding streams and the people running them are expected to contribute their time on a volunteer basis – meaning there is the chance of other pressing livelihood generation activities diverting their attention. Local Government offices may face their own funding constraints but on the whole they are able to rely on a professional staff of extension workers who will keep focussed on catchment management objects so long as the required legal and policy framework is in place. It is thus important to look at innovative ways to maintain community interest in the process. A government extension officer can be held accountable through job performance monitoring systems; however community volunteers are more difficult to manage as they are providing their time without remuneration.

The role of the private sector in implementing IWRM in the country is not to be under-estimated. Industries rely on receiving a reliable quantity and quality of water for their operations not to be interrupted. Experience from this project shows that there is a willingness on the part of the private sector to engage with communities in various catchment management institutions. If provided with the needed organisational assurances there exists the possibility of the private sector funding catchment conservation activities – paying communities for sustaining ecosystems services. There is a strong business-case to be made for companies getting more involved in supporting the societies in which they operate, not just for altruistic reasons but also as a risk-management strategy to ensure the continued provision of resources and improve public perception of their image.

10.4 Recommendations for WWF UCO

a) It is important to start with a clear catchment assessment and with the right management

Substantial amount of resources (financial and technical) were required to get the project rolling (from 2008 to March 2010). This was a pilot project so most of all start-up aspects 'began from scratch'. Poor performance of the initial project manager and the delays to deploy a second manager slowed down the project. Owing to the nature of WWF Norway's funding, unspent funds could not be carried forward to another project year and were hence 'lost'. In addition to this, the KAP study was not held early in the process.

It then became the Inception Phase Evaluation Report of November 2009, which elaborated on the 'path-forward' for the project (including dropping one of the 3 originally planned sub-catchments). All these factors meant that it was not until early of 2010 that implementation actually began to take place. It is the recommendation of this evaluation that much earlier efforts be put on preparation and sourcing of the right management before similar projects are commissioned in the future.

b) The financial system should be structured not only to be a financial reporting tool but also a project management tool

In most cases when a project of this nature (with about $1.2million investment) is implemented, a close track of financial expenditures and intra-budget line assessment is more critical than larger projects. As put by one of the WWF-UCO staff: 'it is a situation where every penny counts'. Timeliness of financial reporting was a challenge overall that was brought about by: a) late disbursements by WWF Norway on one part; and b) late financial reporting by WWF UCO although this improved after early 2011. The way financial data is presented shows what was budgeted and received and the budget lines without a match against what was achieved as a result. It is recommended that while financial reporting is an important to for fiduciary management, it should also be fashioned as a project management tool for a clearer value for money assessment to be made.

c) Actively seek future sources of funding for the institutions established under the project

The Semuliki project aimed at setting up IWRM institutions in the areas it operated in, as well as developing catchment plans and embarking on pilot activities. This has by and large been performed successfully, with 26 WUGs in existence. These groups are in their infancy and yet they are the foundations for future continued catchment conservation activities to take place. It would be important for WWF-Uganda to actively seek resources to continue working with these organisations, supporting them and allowing them to continue developing. A key partner here could be the Global Water Partnership (GWP) who has their East Africa regional secretariat in the offices of the DWRM in Entebbe. The GWP is a potential avenue to securing resources for the continued support of the WUGs and other aspects of this project, having access to a range of funding mechanisms which are specifically geared toward the promotion and implementation of IWRM at various levels of scale. Another possibility is to approach the Nile Basin Initiative for inclusion of the Semuliki activities under their portfolio. With the establishment of the fund for Cooperation on International Waters in Africa (CIWA) there is the possibility to finance such local-level implementation projects in Transboundary catchments, especially with the level of success that this pilot project has demonstrated.

ANNEXES

ANNEX 1: WATER USER GROUPS AND ACTIVITIES PLANNED

Mubuku/Nyamwamba Sub Catchment

Groups	Geographical Scope	Water User	Issues identified	Roles/Responsibilities
Group 1	Kanyangeya& Scheme	• Sand miners, • Brick Makers, • Car Washers, cultivators	• Open ponds, de-vegetation • River silting, water pollution, Eucalyptus planting	• Backfilling of ponds • Plating of indigenous site friendly vegetation. • Find alternative car washing sites • Community sensitization on River Nyamwamba protection
Group 2	Nyakasanga&Kihara	• Agriculture, • Sand mining, • Cattle grazing	• Water diversion • Lost vegetation • River bank collapsing • Water pollution • Eucalyptus planting • River water siltation • Dumping wastes in wetlands • Floods • Lack bridge for crossing	• Advocate for better irrigation mechanisms • Plating of indigenous site friendly vegetation. • Practice organic and other better farming methods • Monitor and reporting unsustainable activities by other users
Group 3	Misika& Basecamp	Agriculture, Resource harvesting, brick making, sand mining, fishing, animal grazers, eucalyptus tree planting	• Lost vegetation/Resource overharvesting • River silting • Poor agriculture practices • Eucalyptus planting	• Plating of indigenous site friendly vegetation. • Practice better farming methods • Apply sustainable resource harvesting practices • Monitor resource use
Group 4	Road barrier &Mburakasaka	Agriculture,fish farming, papyrus harvesters, craft makers,sand mining, animal grazing,	• Poor agriculture methods • River silting • Eucalyptus planting	• Plating of indigenous site friendly vegetation. • Practice better farming methods
Group 5	Bunyandiko, Kyanjuki	Charcoal burners agriculture, lumberers, brick makers, grazing	• Indiscriminate tree cutting • Poor agricultural practices, loss of vegetation, soil erosion, wetland degradation	• Plating of indigenous trees • Practice better farming methods • Apply sustainable resource harvesting practices • Monitor resource use • Rehabilitate the degraded sites with vegetation • Discuss sustainable alternative sources of income
Group 6	Ngangi, Kibandama	Charcoal burners agriculture, lumberers, brick makers,grazing	Cutting trees, poor methods of lumbering, ignorance of the laws, poverty, river banks/wetland degradation, overgrazing,	• Formulate and enforce bye-laws • Sensitisation on WRM • Rehabilitate degraded river banks and wetlands, • Practice better methods of farming • Re-vegetate degraded areas

Groups	Geographical Scope	Water User	Issues identified	Roles/Responsibilities
Group 7	Kanamba-Kibuga, Nyakakindo Mubuku, Nkoku,	Agriculture, cattle grazing, Eucalyptus planting, Brick making, papyrus harvesters, waragi distillation, piggery, sand miners, fishing-(kanyatete)	• Poor agriculture methods • River silting • Eucalyptus planting • Overgrazing	• Plating of indigenous site friendly vegetation. • Practice better farming methods • Reduce on the number of heads and improve on the quality of cattle. • Filling the ponds after mining sand and murram • Planting friendly trees along river banks minimise on the uptake of water thus degrading rivers • Stop farmers from cultivating in wetlands • Put in place by-laws to stop un sustainable practices • Advise waragi distillers not to discharge the effluents back into the rivers • To advise the farmers reduce on the number of cattle, by adopting keeping improved breeds through zero-grazing to maximise benefits
Group 8	Kabukero, Kyalanga&Karusandara	Agriculture, cattle keepers, Eucalyptus planting, Brick makers, stone quarrying, charcoal burners, papyrus harvesters, waragi distillation, sand miners, fishing-(R. sebwe)	• Siltation • Exposed land to landslides and erosion • Large un covered pits • Wetland drainage • River bank degradation • De-vegetation due to over grazing	
Group 9	Katoke, Muhambo	• Cultivation along steep slopes and along river banks • Eucalyptus tree planting	• River bank degradation • Vegetation loss & silting • Wetland degradation and encroachment	• Planting site friendly vegetation-indigenous species • Awareness raising on better WRM approaches • enforce soil and water conservation practices • Bye-law formulation and enforcement
Group 10	Isule, Nyangorongo	• Eucalyptus planting • Brick making • Fish farming-in ponds • Reeds, papyrus harvesting for crafts • Sand mining • Keeping animals(cattle, goats etc)	• Siltation, diversion of water • Water quantity of most rivers has reduced • River bank degradation	• Bye-law formulation and enforcement • Rehabilitate degraded sites eg ditches after brick making • Awareness raising on better practices • Venture into alternative sources of income(IGAs)
Group 11	Kyanya, Ibanda and Bikone	• Cultivation along river banks • Eucalyptus tree planting • Brick making in wetlands and along rivers banks • Sand extraction • Stone quarrying • Bathing and washing from water • Water abstraction for HEP generation	• Siltation • Reduction in the water volumes flowing in the rivers • Contamination of water • Animal watering in the rivers	• Bye-law formulation and enforcement • Rehabilitate degraded sites eg ditches after brick making • Awareness raising on better practices • Venture into alternative sources of income(IGAs) • Engage the HEP generating companies to pay back to the communities that manage the catchment
Group 12	Rwakingi&Mubuku			
Group 13	Kahendero,	• Fishing, • Papyrus harvesting, • Cattle keeping,	• Over fishing-use wrong fishing gears • Reduced stocks	

Lamia/lower Semuliki sub-catchment

Groups	Geographical Scope	Issues identified	Roles/Responsibilities
Group 1 Nyankonda and Kakuka	**Sindila S/C** >Kakuka parish >Nyankonda parish	>stone quarrying and sand mining >farming >palm oil processing >bathing and washing	-originality bye-laws -implement catchment activities -tree planting -soil and water conservation -hygiene and sanitation etc -community enforcement of laws
Group 2. Lamia, Bundingoma and Nyambaro **Group 3**. Busunga and Mulungitanuwa	**Bubandi S/C**	>stone quarrying and sand mining >farming, palm oil processing >bathing and washing	
Group 4 Busoru and Bundikuyali	**Kisubba S/C** >Busoru parish	>farming >palm oil processing >ltd fishing(local herb fish poisoning)	
	Nyahuka Town Council >Bundikuyali parish-Kasili	>sand mining >farming >waste disposal >bathing and washing	
Group 5. Bundinyama&Humya	**Bubukwanga S/C** **>** parish >	>sand mining >farming >palm oil processing >bathing and washing	
Group 6. Bugando, Nyansoro, &Ntotoro	**Ntotoro S/C**	>sand mining, farming, fishing >palm oil processing, >bathing and washing	
Group 7. Ntandi,Bumaga, Burondo	**Kasitu S/C**	>cattle grazing >fermentation of cassava/waragi >fishing, tourism, transport, farming, charcoal burning	
Group 8 Haibale, Kiranga **Group 9.**Bweramule and Rwamabale	**Bweramule S/C**	cattle grazing >transport >ltd farming >fishing >charcoal burning	
Group 10 Masaka, Nyakasenyi and Kyabukunguru	**Rwebisengo S/C** Kiranga parish	>fishing >cattle grazing >ltd agriculture	
Group 11 Rukora&Bugando **Group 12** Budiba&Butungama	**Butungama S/C**	>cattle grazing, transport, Ss farming, brick making, fishing, charcoal burning	– Formation of water user committees, – Sensitisation on IWRM – Engage in other IGAs – Restoration of degraded areas
Group 13 Katanga, Kamuga and Rwangara	**Kanara s/c-kanara T/C**	fishing, tourism, transport, oil exploitation, cattle grazing, brick making, farming	

ANNEX 2: EVALUATION TIME TABLE

Date and Time	Activity	Location	Responsible Persons
11 November 2012	Arrival of Mr. Anton Earle	Kampala	Zephrine
MONDAY; 12 November 2012			
08.30-10.00	Met with WWF UCO staff	WWF UCO, Kampala	Thomas
12.00-1.00	Met with DWRM team	DWRM Offices Entebbe	Thomas
02:00	Departed for Kasese	Arrived in Kasese	Doreen
TUESDAY; 13 November 2012			
09:00 – 01:00	Met Semuliki project staff	PMU Rwakingi	Ivan
01:00-02:00	Lunch Break		
02:30-03:30	Met Kasese District Local Government team	Kasese DLG	Ivan/Evelyne
04:00-05:00	Held a Focused Group Discussion with representatives of the private sector	Virina Gardens	Ivan/Evelyne
WEDNESDAY; 14 November 2012			
10:00-01:00	Visited a water use group in Karusandara	Karusandara	Evelyne/Augustine
01:00-2:00	Lunch break		
03:00-04:00	Visited Water User Group community members in Bugoye	Bugoye	Evelyne/Augustine
04:00	Traveled to Bundibugyo	Resided at Fort Portal	Doreen
THURSDYA; 15 November 2012			
9:00-10:30	MetBundibugyo District Local Government team	Bundibugyo DLG	Ivan/Jockus
10:30-01:00	Field visit to Water User Groups (Bundigoma&Ntotoro)		Evelyne/Jockus
	Lunch Break		
02:00-5.00	MetNtoroko District Local Government team	Ntoroko	Evelyne/Hebert
	FRIDAY; 16 November 2012		
8.00- 9.00 am	Consultants Departed for Kampala	Kampala	Zephrine
2.00	Mission De-brief at WWF UCO	Kampala	Thomas
TUESDAY 27 November 2012 Presentation of Draft Report Kasese WWFPMU Offices Drake Rukundo			
FRIDAY NOVEMBER 30 2012 Submission of Draft Report: Anton Earle & Drake Rukundo			
FRIDAY DECEMBER 7 2012 Offer of Consolidated Comments to Consultants by WWF UCO			
FRIDAY DECEMBER 14, 2012 Submission of Final Report by Anton Earle & Drake Rukundo			

ANNEX 3: REFERENCES AND DOCUMENTS REVIEWED

i. Project proposal Document;
ii. Logical Framework Analysis (LFA);
iii. Annual Work-plans & Budgets;
iv. Semi-annual and annual Technical Progress Reports (TPR);
v. Quarterly and annual Financial Reports (FR);
vi. Consultancy Reports;
vii. Capacity Building Plan;
viii. Sub-Catchment Management Plans;
ix. Inception Review report;
x. Mid-Term Review Report; and
xi. Audit Reports
xii. Knowledge Attitudes and Practices (KAP) Survey Report, 2012

ANNEX 4: PERSONS PART OF THE CONSULTATIONS

S/No.	Name	Title	Organisation
1.	Eng. Mugisha Shilling	Director, Directorate of Water Resources Management	Ministry of Water and Environment
2.	Svein Erik	WWF Norway	
3.	Mr. Thomas Otim	Conservation Manager	WWF-UCO
4.	Mr. Ivan Ebong	Project Manager	Semuliki Project
5.	Ms.EvelyneBusingye	Project Extension Officer	Semuliki Project
6.	Ms. Doreen Kabahuma	Finance & Admin Asst.	Semuliki Project
7.	Mr. Jackson Kitamirike	Senior Water Officer	AWMZ
8.	Mr.Kaliisa Herbert	ACAO's office Bundibugyo	
9.	Mr.KibuukaSaadi	Community Development Officer	Karusandara Sub County
10.	Mr. Andrew Mikianda	Environmental Officer	KCCL Kasese
11.	Ms Joan Muthabazi	HSE officer Tronder Power Ltd	Kasese
12.	Ms.BahindiJesca	Mubuku-Nyamwamba Watershed Association Treasurer	Kasese Municipal Council
13.	Mr. C. Kalengutsa	MubukuNyamwamba Watershed Association Chairperson	
14.	Mr. Stanley Kamugisha	Area Manager, National Water and Sewerage Cooperation	Area Manager in the Rwenzori Region
15.	Mr.Katushabe Louis	Member of the KakukaNyankunda Water User Group	Bundibugyo
16.	Mr. John Makombo	Director Conservation	Uganda Wildlife Authority
17.	Ms Kobusingye Kate	Community Development Officer	Kasese Local Government
18.	Mr.Busingye John	Sec. Production	Kasese Local Government
19.	Mr, Aheebwa Justin	District Natural Resources Officer	Bundibugyo LG
20.	Mr. Joseph Katswera	District Natural Resources Officer	Kasese
21.	Mr. Albert Orijabo	Team Leader	AWMZ/DWRM
22.	Mr.SeverioRukwago	District Natural Resources Officer	Rukungiri LG
23.	Mr.MaateJockus	Environmental Officer	Bundibugyo LG
24.	Mr. Sunday Luke	NAADS Coordinator and ToT	Bundibugyo LG
25.	Mr.Kamuhanda Herbert	Environmental Officer	Ntoroko LG
26.	Mr.MbalibuuhaGeodfrey	LC 5 Chairman	Bundibugyo LG
27.	Mr. Sam Mugume	District Planner and TAC member	Kabarole LG
28.	Ms.KoburungiEvelyne	Community Development Officer	Ntoroko LG
29.	Mr.Asaaba Wilson	Ass. Chief Administrative Officer	Kasese District LG
30.	Mr.OnanBagonza	Secretary Production	Ntoroko LG

ANNEX 5 FIELD PHOTOS

PMU Offices in Kasese

Drake Rukundo *(local counterpart consultant holding the stand)* listens to Mr. Jackson Kitamirike the Albert Zone DWRM representative just before the trip to the field)

Kilembe Mines Mimi hydro power plant in the fore and at the bottom the discharged flow that will later be harvested by Tronder Power Turbines *(notice the pipe down the hill)*

Women leaders of the Karusandara Water User Group show the local consultant the progress of fencing around the river banks pilot project

A demonstration of the two-pot energy saving stoves as part of the projects to conserve the environment by minimizing use of fuel wood in Kasese

Leaders of the WUG in Kasese express dismay that planting up to banks of the river continue – a sign that more awareness raising and sensitization is still required. Gradual Loss of land to the river due to poor catchment protection. The land shown with grasses in the valley was only 10 years ago a site of the gashing river

Ivan Ebong (in light blue shirt on the right) listens as the Water User Group secretary in Ntoroko explains the Palm oil conservation project

Anton Earle, the Consultant shaking hands with the Chairperson of the KakukaNyankonda WUG in Bundibugyo