EVALUATION OF THE MICRO PROJECTS UNDER POVETY AND ENVIRONMENT INITIATIVES - UGANDA

NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

EVALUATION REPORT

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ACRONYM

ACA	Association for Country Wide Afforestation
ACODE	Advocates Coalition for Development & Environment
CBO	Community Based Organization
CSO	Civil Society Organization
DDP	District Development Plan
DEO	District Environment Officer
GOU	Government of Uganda
MDG	Millennium Development Goals
MFPED	Ministry of Finance Planning and Economic Development
MUIENR	Makerere University Institute of Environment and Natural Resources
NAADS	National Agricultural Advisory Services
NDA	NSONA Development Association
NDP	National Development Plan
NEMA	National Environment Management Authority
NGO	Non-Governmental Organization
NSONA	Nsotoka and Nakaseta (Parishes of Kayunga)
PEAP	Poverty Eradication Action Plan
PEI	Poverty Environment Initiative
PMA	Plan for Modernization of Agriculture
PRSP	Poverty Reduction Strategy Paper
TECO	The Environment Conservation Organization
UEEF	Uganda Environment Education Foundation
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme

EXECUTIVE SUMMARY

The Government of Uganda (GoU) and the United Nations Environment Programme (UNEP), through the National Environment Management Authority (NEMA), supported three micro projects at community level. The micro projects were located in selected villages in Masaka, Mukono and Kayunga Districts and were implemented by Community-Based Organisations (CBO).

Each of the micro projects aimed at addressing priority environmental issues affecting the area, while at the same time providing alternative income generating activities to strengthen the appreciation of environment-poverty linkages. Deforestation, loss of biodiversity, water shortage/drought and loss of soil fertility and productivity were among the key environmental issues addressed by the micro projects.

Evaluation Results

The projects were designed to promote participation of stakeholders, with specific reference to building the capacity of communities to make meaningful input to project activities. This evaluation showed that participation in project formulation varied from project to project. Later on at the implementation stage the level of participation increased because the visible benefits of the project attracted even those who were skeptical at the planning stage. Women ranked highest in both participation in micro project activities and sharing of the benefits.

In Kayunga and Mukono Districts, stakeholders overwhelmingly (over 95%) believed that the project objectives were achieved, but in Masaka District, the percentage of stakeholder who believed that the objectives had been achieved was much lower (48%) because some of the planned activities were not carried out as the community gravitated on water harvesting as the overriding priority.

In terms of outputs:

- Three water harvesting reservoirs were constructed in Masaka District. Whereas the original plan was to provide water for production, the communities decided to use this clean water for drinking and transferred most of the funds to this activity. In this area, the distance traveled to collect water daily has reduced from 3-7 Km to 1Km or less.
- In Kayunga District, four mini dams to collect runoff water were constructed. The communities were using the water to irrigate crops and water domestic animals.
- Fruit trees planted in Kayunga and Mukono Districts had not yet fully matured to contribute to household incomes and nutrition.
- The growing of drought-resistant and pest-resistant crop varieties achieved mixed success because only one type of yam was distributed, and even then, 85% of the beneficiaries ate all the yams from the first harvest without saving planting materials for subsequent seasons.
- Tree planting was promoted in the three districts, but little technical input to guide species selection and site matching.

- Overall, the communities constructed energy saving stoves but the levels of use varied from 60% in Kayunga to 20% in Mukono. In Masaka, only about 20% of the trained members had actually constructed the stoves in their homes.
- Time was too short for the piglets in Kayunga and cows in Masaka to produce and therefore no transfers of the young to other beneficiaries had been done by the end of the project..
- Soil conservation practices in Mukono and Kayunga were being applied only to a limited extent.
- 20 beehives were distributed out to 10 households in Kayunga District, but the beneficiaries had not yet harvested the honey.

In terms of impact:

- There was good value for money, with tangible benefits actually received by the communities. However, if they could achieve this much with the money they received, the impact on the ground would have been better if each project had focused one item with the limited resources available.
- There was "moderate" impact on food security.
- 72% of the stakeholders in Kayunga District indicated that the micro project had contributed to the improvement of people's health, followed by Masaka, (64.6%), and Mukono (46.5%).
- There was some impact on forest cover created by the micro projects, especially in Kayunga and Mukono, where tree planting was carried out. Similarly, the micro projects had "much" to "very much" impact on soils in Mukono and Kayunga, where organic farming was practiced.
- The micro projects had good social impact, especially in fostering community unity. In addition, the neighbouring communities benefited through peer learning.

In terms of sustainability of the micro project outputs:

- Underground water reservoirs were considered the most sustainable technology, followed by the mini dams and the energy saving stoves. With the skills obtained the communities are likely to continue to promote use these technologies.
- In terms of financial sustainability, some community members have started making a living out of selling cook stoves. Additionally, with the maturity of the fruit trees, the communities will be able to sell the fruits to earn a living. Better productivity of land through increased soil fertility will enhance income generation.
- Organisational sustainability has been developed through the training of members of the CBOs and the linkages they have established with other similar organizations within the districts
- The project interventions will bud and flourish, especially if there is access to good markets for their products.

Best practices and lessons learnt

1. The deployment of resources directly to the benefiting CBO is good approach to ensure that these resources reach the intended recipients expeditiously.

2. The harvesting of rainwater from roofs is an excellent way of sustainably providing clean water to poor people in water stressed areas.
3. The project has promoted the use of inexpensive, locally available materials to provide technologies that address issues and needs of the communities.
4. It is easier to work with informed communities, since they are aware of the problems affecting them and are able to understand the strategies to address the problems.
5. Targeting women in micro projects can yield tangible results for the communities.
6. At community level, it is good to start small in order to gauge the real interests of the communities. Subsequently, additional resources can be channeled to the real needs of the communities.
7. The contribution of the communities strengthens the ownership of the micro projects by the communities, and also enhances sustainability of the initiatives
8. Energy saving stoves can be useful in cutting down on costs of providing meals in institutions like schools and hospitals.
9. Starting with micro projects provides the knowledge and skills needed to handle production enterprises at a larger scale. In addition, it builds the capacity of the CBOs to handle resources entrusted to them and leverages more resources so that they can be able to handle bigger projects.
10. The success of community development initiatives depends more on the extent to which such initiatives address community needs, and the availability of leadership that works with the people, and less on political support.

Conclusions

1. The communities were supported to improve their capacity to generate income, while contributing to the conservation of the environment. The micro projects also addressed local community productivity constraints by providing relevant technologies.
2. The participatory approach to project formulation and implementation enhanced fair distribution of available resources and contributed to the achievement of the planned objectives. However, the attitude portrayed by the communities is that these were “Government Projects” rather than their own.
3. Since the CBOs effectively used this level of resources, it is now possible to entrust them with more resources because they have shown that they can deliver, and they have the requisite skills to implement these and related development activities.
4. The micro-projects fitted in the broader local and national level programmes of community development. This offered opportunities for building partnerships that are important in leveraging resources to implement poverty-environment programmes at grass-roots level.
5. There was a strong indication that the project outputs will be sustainable to an appreciable extent, especially because they addressed immediate community needs.
6. Generally, the micro projects did not have substantial visible impact on the quality of natural resources such as forests and soils, partly because the period of the project was too short, and the resources available could not allow implementation of activities to a level where visible impact on the natural resource base could be demonstrated.
7. This micro project design eliminated the slow bureaucratic procedures of passing money on to communities through routine government processes. However, sidelining the local

government technical staff resulted in inadequate technical backstopping. In bigger projects, this is likely to be a significant drawback in project implementation.

Recommendations

1. Micro projects should focus on one community priority. This should be planned in such a way that subsequent interventions can build on the foundation of the micro project in order to eventually produce critical volumes for the markets, and break through the vicious cycle of producing for subsistence.

2. In the design of micro projects, focus should be placed on identifying activities, enterprises or initiatives that address the most critical need of the community. This would ensure that the meager resources available through the micro projects are used on priorities that yield the greatest impact.

3. Micro projects that can be implemented by a larger portion of a community over time should be supported to enhance economies of scale in marketing of products, increase economic viability and hence poverty eradication.

4. Micro projects that demonstrate the linkage between poverty and environment, especially in respect of physical natural resources like forests and soils, generally take more than two years before impact can be seen. Therefore, in future, such projects should be designed to be implemented over a period of at least five years.

5. Governmental officers and district staff must be involved in the planning and implementation of activities in order for the local communities to get the correct information and guidance.

1.0 INTRODUCTION

1.1 Background

The Government of Uganda (GoU), through the National Environment Management Authority (NEMA), has been implementing the UNDP-UNEP Poverty and Environment Initiative (PEI) since 2005. PEI Uganda has carried out the following activities among others:

i) Review of the existing poverty reduction policies, plans and programmes and projects for their adequacy in addressing environmental concerns, identifying gaps and suggesting recommendations for improved environmental mainstreaming;
ii) Country report on ecosystems, their services and linkages to human well-being;
iii) An integrated ecosystem assessment (using the Millennium Ecosystem Assessment methodology) in Lake Kyoga catchment;
iv) Training of civil society organizations on poverty and environment linkages; and
v) Support to three micro projects at the local level demonstrating the importance of the poverty-environment linkages for poverty reduction and improved human wellbeing.

This Consultancy evaluated the three micro projects that were supported under PEI-Uganda, and were located in Lwengo Subcounty (Masaka District), Goma Subcounty (Mukono District), and Kayunga Subcounty (Kayunga District). They were implemented by three Community Based Organizations (CBOs), namely: The Environmental Concern Organization (TECO), Association for Countrywide Afforestation (ACA) and NSONA Development Association (NDA), respectively. **Annex 1** gives the detailed Terms of Reference (ToR) for the study.

The projects targeted the local level, consisting mainly of communities that are normally affected by the changes in environment and natural resources. The projects were aimed at demonstrating the importance of the poverty-environment linkages in poverty reduction and improved human wellbeing.

1.2 Objectives of the Study

The main objective of the study was to evaluate the performance & impacts of the micro projects and document best practices & key lessons learnt in order to inform future policy on micro projects and to publicize the good lessons and best practices.

The specific objectives were to:

a) Learn lessons from the performance of the micro projects in terms of the process, project deliverables (outputs), and outcomes, including effectiveness, efficiency, and equitable use of financial and other resources, key success factors and best practices.
b) Assess level of participation in environment management activities.
c) Assess the impact of the micro projects on the quality of life of the communities.
d) Assess the impact of the micro-projects on the quality of the environment at community level.

1.3 Methods used in the study

A participatory approach was applied during the evaluation process, involving representative samples of the stakeholders. The evaluation used a combination of methodologies including;

1. Desk review of existing documents and literature like Project documents and monitoring reports. The review was used to clarify on micro project objectives, the expected outputs, performance indicators and assumptions. It was also useful in identifying what had been done, lessons leant and the gaps that needed to be addressed.
2. Focus group discussions (FGDs) were held at subcounties (Kayunga, Goma and Lwengo), and involved the CBOs implementing the micro projects, representatives of the communities that were targeted for the interventions, technical and political leaders at subcounty and district levels, and selected communities that were not directly targeted by the interventions. The FGDs clarified on the implementation process, outputs/deliverables, and outcomes, the level of stakeholder participation, lessons learnt and sustainability of project activities and outcomes.
3. A structured questionnaire was administered to the various categories of stakeholders of individual projects to derive opinions of the stakeholders about the project objectives, management processes, achievements and impacts.
4. Key informants (opinion leaders and resource managers) were interviewed and provided information about the performance and sustainability of the micro projects and their contribution to community development.
5. Field observations were done to assess the outputs and outcomes of the micro projects on the ground. The observations were used to triangulate information and thus obtain a more reliable status of the impact of the micro projects.
6. The information collected was analysed and a draft report was prepared. The report was shared with stakeholders for review.

1.4 Outputs of the evaluation

The main outputs of this study were the Inception Report and Final Evaluation Report. The study also helped the beneficiaries to reflect on their work and enhance ownership for sustainability of the interventions.

2.0 OVERVIEW OF MICRO PROJECTS

2.1 Background to micro project approach

The world's poor depend critically on fertile soils, clean water and healthy ecosystems for their livelihoods. Their well-being is directly linked to the sustainable use of natural resources. Consequently, environmental degradation undermines the capacity of poor people to meet their daily needs. Yet, in most of the poor countries, integrating the environmental concerns of poor and vulnerable groups into development planning and investment remains a major challenge.

UNEP's work on poverty and the environment is a response to this challenge. In 2005, UNDP and UNEP began the process of integrating their respective poverty and environment programmes and the global partnership. UNDP-UNEP Poverty and Environment Initiative (PEI) was launched in 2005 and scaled up in 2007 at the UNEP Governing Council Meeting. Through this partnership, UNDP and UNEP sought to mobilise global and national coalitions to enable countries to more effectively integrate environment into their national poverty reduction strategies and investment programmes.

The existence of a complex linkage between human well-being and ecosystem services has been integrated in Uganda's national and local government plans, with the recognition of environment and natural resources (ENR) as contributing directly to social-economic development. Uganda's planning framework, the Poverty Eradication Action Plan (PEAP) and its successor, the National Development Plan (NDP), emphasize sustainable management of environment and natural resources as pillars of productivity. The Plan for Modernization of Agriculture (PMA) recognizes ENR as a pillar of agricultural development. Mainstreaming environment as a cross-cutting concern in all other sectors (such as Health, Works and Transport, Water, Agriculture, Industry, and Justice, Law & Order) is now an accepted concept in Uganda. Local governments have also integrated environmental management in their District Development Plans.

The greatest challenge however, has been the implementation of the strategic plans to benefit the local communities who are usually most affected by environmental degradation. There has been limited interventions on the ground to raise appreciation of environment-poverty linkages and the contribution of ENR to people's wellbeing. Conversely, the communities have not appreciated that irresponsible utilization of their environmental resources can bring disastrous consequences. For instance, a community may target an ecosystem for one major service, e.g. clearing a forest for agricultural expansion, but forest degradation affects all other services provided by the forest. Although food production may be increased for a time, there may be a reduction in fuel wood supply and the water supply may be affected since forests often occur in catchment areas. Forest soil fertility depletes fast and so within a few years food production may go down. Other services like biodiversity conservation and carbon sequestration may also be lost.

All critical ecosystems in Uganda (forests, wetlands, fisheries, agricultural lands and rangelands) are severely stressed in all districts, albeit with some variations. The most affected ecosystems are those in areas of high population density. Poverty incidences are high where ecosystems are naturally fragile; around urban areas and where there have been conflicts. Against this

background, the UNDP/UNEP PEI used an ecosystem approach to help communities to address issues of poverty and environmental conservation that are relevant to their local settings.

The ecosystem approach presupposes that mainstreaming poverty-environment linkages in community development initiatives contributes to poverty reduction, while advancing more sustainable use of natural resource base, on which the poor and vulnerable groups depend for their well-being. In most cases, the poor have a meagre capital base and live on very small pieces of land and thus cannot afford large investments. Therefore, the better vehicle for investment by the poor is through micro projects which can also be scaled up among the poor in the process of peer learning.

The micro project promotes rural women participation, recognizing that women often bear the highest cost of environmental degradation as they tend to depend more directly on natural resources for their productive and reproductive activities than men do. When women are aware of environmental issues and empowered with the means and authority to act on their knowledge through micro projects, they can be powerful agents for change and sustainable development due to their strategic role as natural resource managers.

2.2 Selection of micro projects

The micro projects were implemented by community based organizations (CBOs). The selection of organizations to implement the micro projects was based on the following criteria.

- Relevance to the project focal area and objectives
- Contribution to the realization of project objectives
- Clear specification of Gender roles especially as related to the needs of women
- Demonstration of innovative approach to ecosystem conservation
- Potential to earn income through ecosystem conservation
- Capacity of implementing CSOs, CBOs or local communities
- Benefits to the community
- Potential for replication on a large scale
- CBO/CSO/ Community input and strength on the ground
- Evidence of some activities on the ground.

Each of the CBO aimed at addressing priority environmental issues affecting the area, while at the same time providing alternative income generating activities to strengthen the appreciation of environment-poverty linkages. Deforestation, loss of biodiversity, water shortage/drought and loss of soil fertility and productivity were among the key environmental issues addressed by the micro projects. An integrated approach was used to address the environmental concerns and at the same time enhance the capacity of the households to increase incomes and improve their livelihoods.

The chapters that follow present the results of the assessment of the performance and impact of the micro-projects.

3.0 PROJECT DESIGN AND IMPLEMENTATION

3.1 Overview

The micro-projects were designed to be implemented as pilot projects at local level to demonstrate the importance of the poverty-environment linkages for poverty reduction and improved human wellbeing. Therefore the micro projects were in line with the National-level policies and strategic plans such as the Poverty Eradication Action Plan (PEAP) and its successor, the National Development Plan (NDP), and the Plan for Modernization of Agriculture (PMA), the National Environment Action Plan, in which environmental management is recognized as an enabling pillar for sustainable development. The involvement of local CBOs as implementing agents is in line with the decentralization policy, which aims at bringing service nearer to the communities, and building the capacity of the CBOs.

The micro-projects were also designed to apply an integrated approach with appropriate innovations for sustainable utilization of natural resources to enhance water availability, food security, energy availability, and income generation. The micro projects focused on one or two parishes for each project area in order to avoid spreading the limited resources over a large geographic area, and hence produce more visible results.

In terms of monitoring, the individual micro projects were not planned with explicit performance indicators against which contribution to poverty and food security would be measured. The Contracts, which included the Terms of Reference for the micro projects, did not specify performance targets, and therefore, it was difficult to measure the achievements of most variables against planned project objectives.

This Section focused on evaluating the process-level activities of the micro projects. Participation, gender roles, benefits, means of implementation and financial arrangements were used in the evaluation as key ingredients of good project design and implementation.

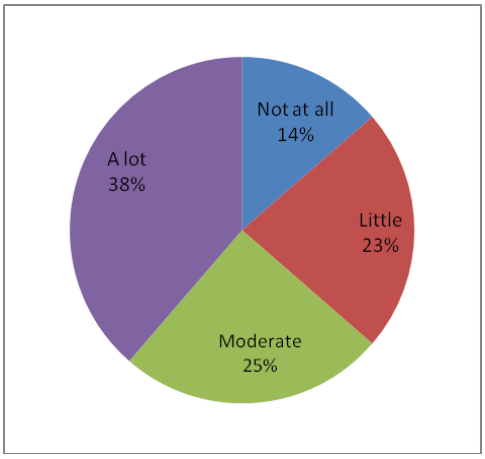
3.2 Participation of communities

The projects were designed to promote participation of stakeholders, with specific reference to building the capacity of communities to make meaningful input to project activities. Hence the projects were expected to unleash and utilize the innovative potential of the communities to sustainably manage the environment and natural resources as they meet their livelihood needs. The direct project beneficiaries consisted of the communities within the project area. The secondary beneficiaries included the technical and political officials at the subcounties & district levels, NEMA, and other communities outside the project areas.

The level of participation of the various stakeholders in the micro-projects was assessed at both the planning and implementation stages by asking the stakeholders to indicate their level of participation in the micro project activities, ranging from “not at all” to “a lot”. The results showed that there was consensus for the three micro project areas that project formulation was participatory, involving various stakeholders. As seen in Figure 1, 86% of the respondents

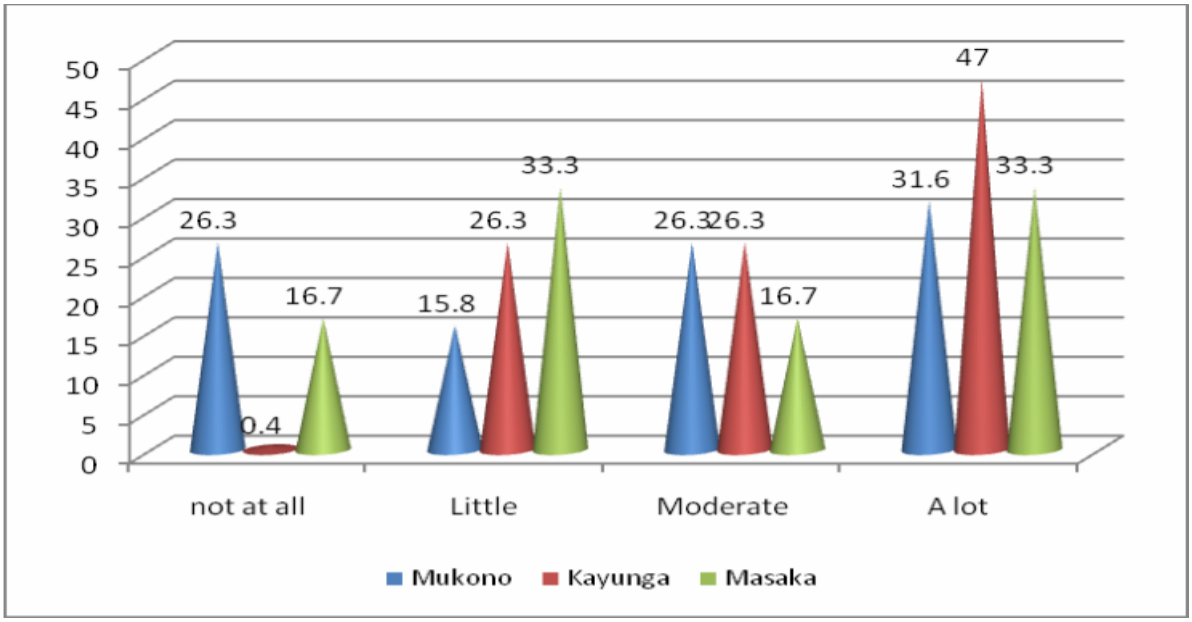
indicated that they participated in planning activities, some “a lot” (38%), “moderately” (25%), or “little” (23%). 14% of the stakeholders indicated that they did not participate at all.

Figure 1: Level of stakeholder participation in micro project activities



The level of participation in project planning varied from project to project, with Kayunga registering the highest level of participation, and Masaka the lowest **(**Figure 2**)**. 73% of the respondents in Kayunga stated that their participation was “moderate” to “a lot”, followed by Mukono with 58% and Masaka with 50%.

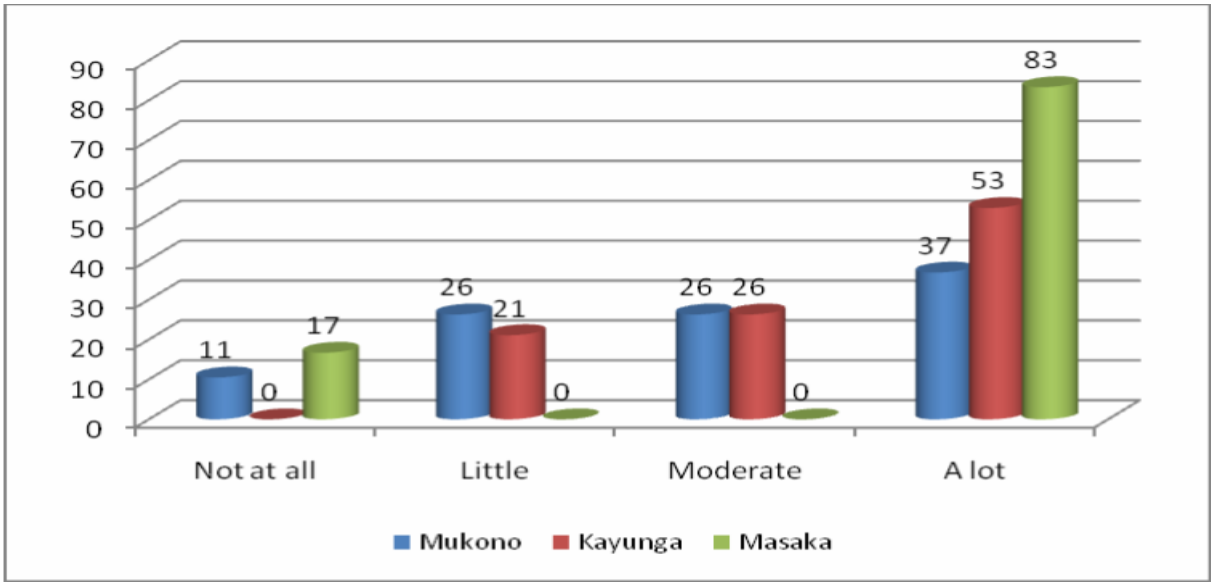
Figure 2: Level of participation in planning per project area



Participation in project implementation

In terms of project implementation, Masaka recorderd the highest level of community participation (83%), followed by Kayunga (79%) and Mukono (63%) as seen in Figure 3**.**

Figure 3: Level of participation in project implementation per project area



It was generally noted that there was increasing participation from planning to implementation. In Masaka, 50% of stakeholders participated at planning stage, while 83% participated at the implementation stage. In the case of Kayunga), 73% of the respondents indicated that they participated in the planning process, while 79% participated at implementation stage. Similarly, stakeholder participation in Goma (Mukono) increased from 58% during planning to 63% at implementation. The increase in participation at implementation level was due to the greater attraction of the community members by the benefits of the project seen during the implementation process (**Box 1.**). In Masaka, the surge in participation at implementation level compared to planning level was due to the acute need for water.

Box 1: New members recruited
"When I saw the benefits from the Project, especially planting fruit trees, I also decided to join to access the tree seedlings. Now I have grown some orange and mangoes on my land, which I hope will provide me with some income in future"

A respondent from Jjogo Village, Goma, Mukono District

Participation of the stakeholders was considered a key success factor for the micro-projects. It was reported that the process fostered good working relationship between the project participating communities and the staff of the NGO/CBO administering the project, promoted community participation in deciding priorities and created community ownership of project

activities. Activities that brought the stakeholders together included stakeholders meetings, awareness and sensitization seminars and training. Overall good working relationship between project staff and communities was ranked as the highest factor contributing to project success across the three districts, followed by participatory decision making process in determining community preferences.

Community participation in decision making allowed for flexibility in project implementation. For instance, in Mukono the Tamarind tree had been introduced by the project officials as a food and medicinal plant, and Eucalyptus for fuel wood. However, the communities did not like these species, arguing that Tamarind takes a long time to grow, while Eucalyptus could not be planted together with other crops on their small pieces of land. Therefore, the project had to procure fruit trees, which was the community preference.

Community participation was also reflected in the provision of available materials and some labour requirements. The communities in Masaka contributed land where the water tanks were constructed and also provided food to workers. In Kayunga, the communities provided poles for covering the water mini dams and land on which the mother gardens were put. Therefore, although there were no cost-sharing arrangements described in the design of the micro projects, the communities played some supportive roles. In some cases, however, most of the activities were actually paid for from the project funds. For example, in the construction of institutional energy saving stoves at Greenhill Secondary School by NDA, all materials and labour were provided by the micro project. There was no contribution of the direct beneficiaries towards the project. This affected the level of ownership, creating high dependence on the implementing CBO to do all the work, including maintenance. There was a feeling of "this is NDA Project" or "TECO Project" among the communities.

3.3 Gender roles especially as related to the needs of women

The project design provided for the integration of gender issues, especially in relation to women. Therefore the involvement of various stakeholders including women was analyzed. The results are presented in **Table 1.**

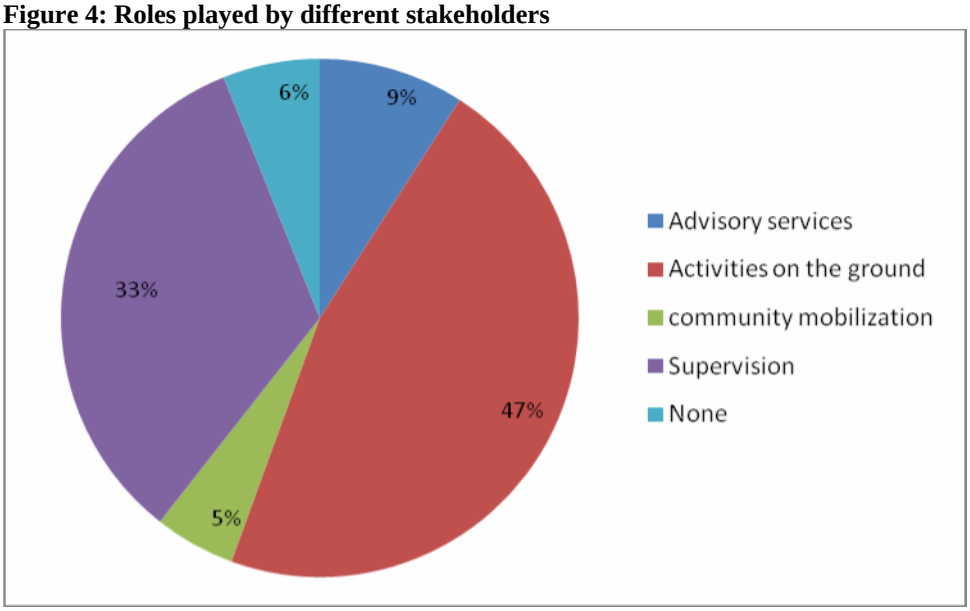
Table 1: Stakeholder participation per category

Category of stakeholders	Level of participation	
	Percentage	**Rank**
Women	17.41	**1**
Men	16.52	**3**
Youth	5.80	**7**
Elderly	3.13	**10**
Physically challenged	3.57	**9**
Civil servants	5.36	**8**
Staff of implementing CBOs/NGO	16.96	**2**
Political leaders	8.48	**5**
NEMA	16.52	**3**
Neighbouring villages	6.25	**6**
Total	**100.00**	

In all the micro-projects, the participation of women was ranked highest, followed by the staff of implementing CBOs/NGO and then the men. Initially the entry point for the development of the CBOs was largely the women groups, and the participation of men increased with time.

The roles played by the various stakeholders in the success of the projects were examined, and the results are shown in **Figure 4**. The results show that the participation of stakeholders in project activities on the ground (47%), followed by supervision of the project (38%), were the main contributing factors to success. Others included provision of advisory services (9%) and community mobilization (5%).

Figure 4: Roles played by different stakeholders

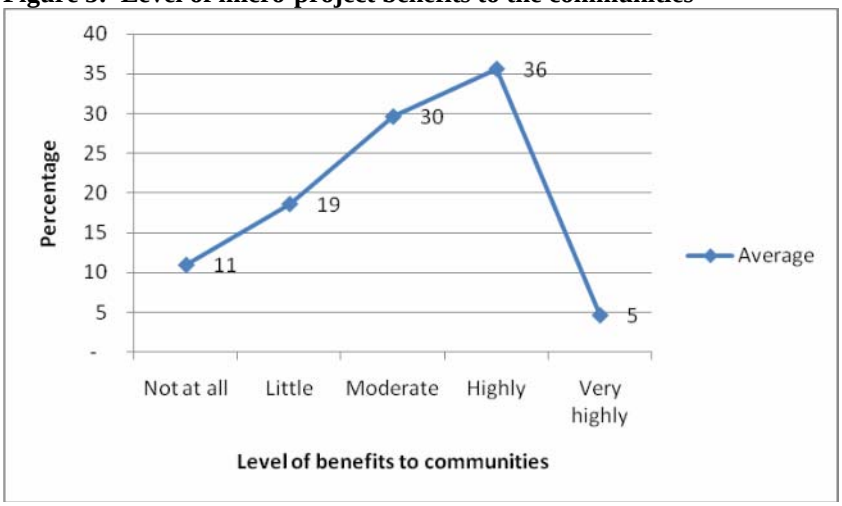


The above results demonstrate that most of the activities involved the actual work on the ground, including supervision. These activities are very crucial in the realization of project success and creation of tangible benefits to the communities.

3.4 Benefits to the communities

The projects were designed to benefit primarily the local communities in order to reduce poverty by increasing income and enhancing food security, through innovative utilization of natural resources. The assessment aimed at establishing whether the intended beneficiaries actually benefited from the planned project outputs. The stakeholders were asked to evaluate the level to which the communities had benefited from the micro projects. **Figure 5** shows that in general 89% of the respondents indicated that the communities benefited, albeit at varying levels, ranging from “little” (19%), “moderately” (30%), “highly” (36%), or “very highly” (5%).

Figure 5: Level of micro-project benefits to the communities



The distribution of the benefits to the various categories of stakeholders was examined. The stakeholders were asked to indicate to what extent the various categories of beneficiaries actually benefited from the micro projects. The results are as shown in **Table 2**.

Table 2: Distribution of benefits from micro projects to stakeholder per category

Category of beneficiaries	**percent benefiting**	
	percent	**Rank**
Women	14.09	**3**
Men	10.07	**5**
Youth	3.36	**8**
Elderly	3.36	**8**
Physically challenged	2.68	**10**
Civil servants	6.04	**7**
Staff of implementing CBO/NGO	20.13	**2**
Political leaders	10.74	**4**
NEMA	22.15	**1**
Neighbouring villages	7.38	**6**
Total	**100.00**	

The results show that among the communities that benefited, women (rank = 3) benefited more than men (rank = 5). The main benefits included receiving inputs (such as seedlings, piglets, bee-hives and cows), development of skills, and direct use of technologies such as improved cook stoves, water harvesting mini dams and water reservoirs. The youth, elderly and physically challenged persons were ranked lowest among the beneficiaries (rank = 8 and 10 respectively).

Additionally, the communities asserted that NEMA (rank = 1), the staff of the implementing CBO (rank = 2) and political leaders (rank = 4) were among the top beneficiaries from the Project, although no tangible benefits were directly attributed to the individuals in these categories of beneficiaries. The respondents asserted that the micro projects contributed not only to community development but also to the ecosystem management in totality. Hence, the communities viewed NEMA, being the institution mandated to coordinate the management of the environment, as gaining from successful implementation of the projects **(**Error! Reference source not found.**)**.

Box 2: NEMA benefits from micro projects
"When we plant trees, the environment is improved and hence NEMA gains"

A Respondent from Nsotoka, Kayunga

3.5 Means of Implementation

Organizational arrangements

The UNDP-UNEP Poverty Environment Initiative provided financial and technical support to the implementing agencies (ACA, NDA, and TECO) during project implementation, specifically in providing funds against Work Plans submitted by NEMA, among others.

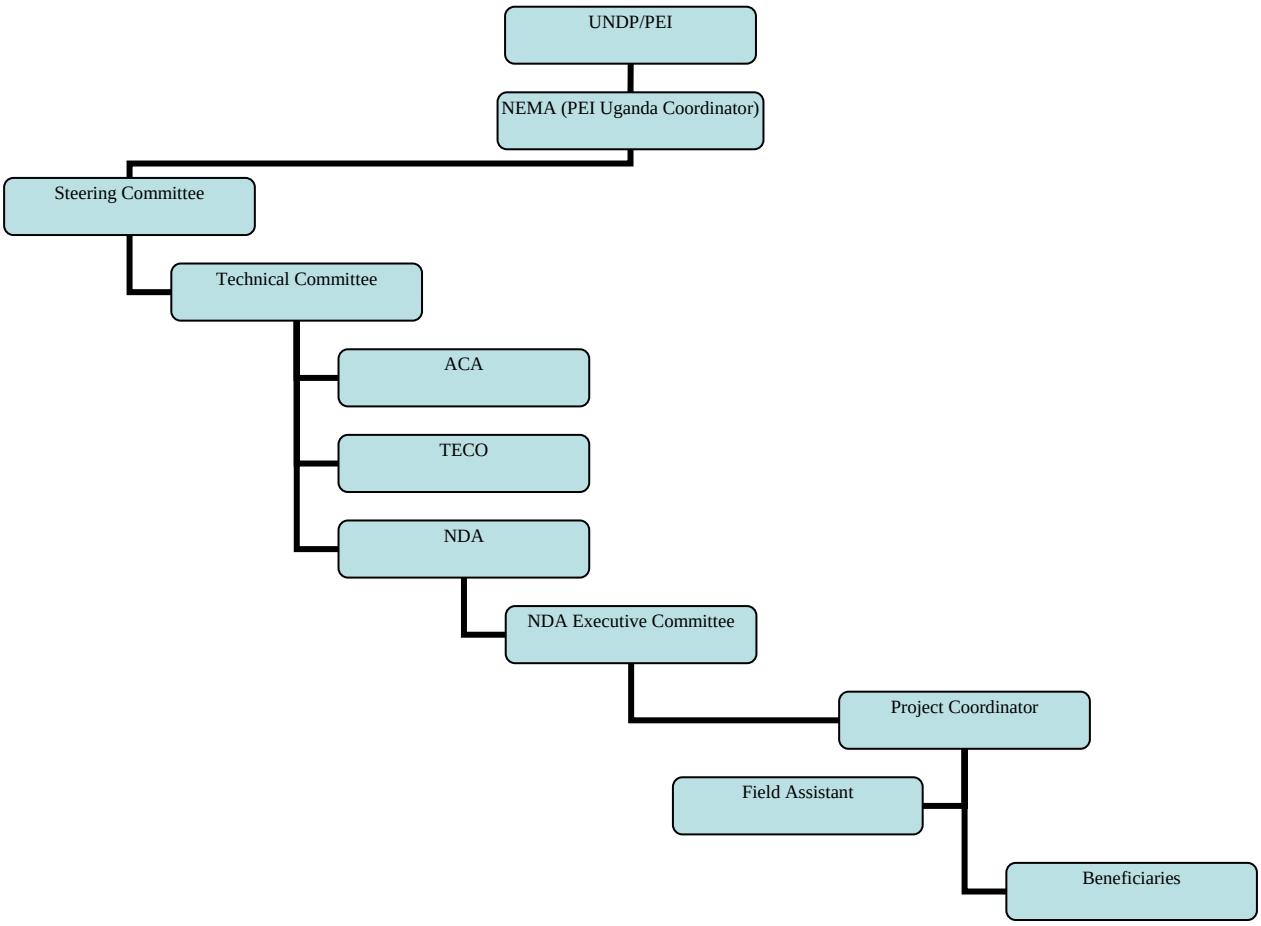
At national level, the micro projects were managed by NEMA in co-operation with other stakeholders like the Ministry of Finance, Planning and Economic Development (MFPED) and UNDP Uganda dams and land on which the mother gardens were put. The Steering Committee and Technical Committees that were used in guiding implementation of the project included representatives from Government, donors, civil society and the private sector.

The PEI Uganda Coordinator based at NEMA has been responsible for guiding and monitoring the activities of micro projects. In this function the PEI Coordinator has dealt directly with the project coordinators in the field.

At field level, each CBO had a field coordinator who handled all project activities on behalf of the CBO, and in this he/she worked closely with the executive committee. A field assistant was appointed to conduct community mobilization and provide technical support to the beneficiaries.

The organogram in **Figure 6** show the coordination of project implementation.

Figure 6: Micro Project Organizational Chart



The organizational arrangement at micro-project level is clear and served to enhance the direct touch of the beneficiaries. The involvement of local government machinery as a conduit for funds was avoided, and hence overcame the usual complicated bureaucracies, allowing for direct flow of funds from NEMA to the intended beneficiaries. The relevant District and subcounty officers such as District Environment Officers (DEOs), District Forestry Officers (DFOs), District Agriculture Officers (DAO), District Water Officers (DWO), were contacted by the CBOs to provide relevant technical backstopping to the communities. However, this was not done well, especially in Masaka and Mukono Districts.

Institutional arrangements for project monitoring

NEMA had the overall responsibility of monitoring project implementation through field visits and review of progress reports. Within NEMA, the Executive Director carried out the project monitoring though the the monitoring role was centred on the PEI Uganda Coordinator. There were a number of field visits were made by NEMA head office. The participation of the Technical committee was however, limited to the evaluation and approval of the micro-projects, and they did not have any follow-up field visits.
At the UNEP the country focal points from Nairobi visited the one of the projects in Masaka coordinated by TECO and met the communities as well.

At the project level, monitoring was done by the respective Project Coordinators and field assistants. Being closer to the projects than NEMA, the relevant local governments officials (e.g. DEOs, DFOs, DAO) were to provide regular monitoring support. However, these officials were not effectively utilized to improve the performance of the projects, especially in Masaka and Mukono. As a result, there was limited technical input to deal with field problems like the termites that destroyed the planted trees in Mukono. In Masaka, the beneficiaries lost two cows out of the six supplied due to poor care and inadequate knowledge on treatment that could have been provided the Veterinary Officers. Such problems could have been addressed through regular monitoring with participation of the district technical staff.

Regular monitoring and supervision of activities on ground by NEMA was also anticipated. Activity progress reports were prepared and submitted indicating what had been planned and what actually was achieved. In addition the release of funds was done in installments based upon a satisfactory report and accountability for the funds released in the last request. In terms of reporting, it was provided that progress reports of implementing organizations would be sent to the project secretariat every three months, using a format provided by the Project Secretariat. In addition, informal progress reports would be sent through email by the implementing organizations every month for regular tracking of implementation.

Capacity of CSOs/CBOs and communities

The micro projects were designed to rely on the capacity of the local CSOs/ CBOs to steer the implementation of project activities. To demonstrate such capacity, the track record of the CSOs/CBOs in implementing similar projects on the ground was taken into consideration during the selection of the CSOs/CBOs. The management capacity of the implementing CSOs/CBOs was seen in terms of capacity to mobilize the communities, promotion of participation of the beneficiaries in project formulation and implementation, and ability to analyze the relevant problems within the communities that needed to be addressed.

The evaluation established that the CBOs demonstrated capacity in the areas outlined. The observation on the ground and interviews of stakeholders showed that the projects were popular among the communities. The project activities carried out were highly relevant to the areas in which they were implemented and reflected the ability of the communities to prioritize problems. For example, water was a critical problem in Masaka and Kayunga Districts, while in Mukono District, the small landholdings characteristic of the area required soil improvement and agroforestry farming practices.

In general, there were attempts to leverage the capacities of other partners operating in the project areas. For example, Nsona Development association (NDA) worked with the Kayunga District NGO Forum, Kayunga District Farmers Association (KDFA), National Organic Agriculture Movement of Uganda (NOGAMU), National Agricultural Advisory Services (NAADS), and KARITAS which provided sensitization and training of the members and technical advice regarding implementation of planned activities. Similarly, TECO worked with the Department of Water Resources in Masaka District to design the water tanks. There were other organizations such as World Vision Uganda, and GOAL (Masaka), and Self-Help Africa (Kayunga), which were operating in the districts on similar thematic areas, but there was no formal collaboration with them.

3.6 Financial arrangements

The total financial support for the micro projects in both the first and second phase of PEI was USD 44,356 funded by UNEP / PEI through NEMA. The individual micro project amounts are shown in **Table 3.** The first phase of PEI US$ 22,533 while during the second phase US$ 21,823 was released.

Table 3: **Micro projects funded through NEMA**

Implementing Agency	**District**	**Subcounty**	**Parish**	**Budget (USD)**	**Equivalent (UGX)**
Association for Country-Wide Afforestation (ACA)	Mukono	Goma	Misindye	7,000	11,900,000
NSONA Development Association (NDA)	Kayunga	Kayunga	Nsontoka and Nakaseta	20,200	34,340,000
The Environmental Concern Organization (TECO)	Masaka	Lwengo	Kito	17,156	29,165,200
Total				**44,356**	**75,405,200**

The beneficial organizations were paid in three installments of 50 percent on signing the contract, 30 percent on acceptance of progress report half-way of the planned activities, and 20 percent on completion of the activities. The requisitions for payment had to have clear accountabilities for the previous disbursements before they could be honoured.

NEMA was required to submit to UNEP quarterly project expenditure accounts and final accounts. NEMA also determined aggregate cash requirements for each quarter, including a reasonable amount to cover “lead time” for the next remittance. NEMA would then send a request to the Chief, Budget and Financial Management Service at UNDP/UNEP.

There was flexibility in the requisition of funds by the micro-projects and release of the funds by NEMA, in consonance with actual field experiences on the ground. The additional financing released in phase II of PEI was based on the issues raised and seen during the monitoring visits and the requests made by the CBOs based on their performance. For instance, NEMA provided

additional funds to respond to the demands of the communities in Masaka for clean safe water and provided funds for constructing two more water reservoirs, provided bicycles for CBO field staff in the three project areas, and procured spray pumps to improve access and use of water from mini-dams and underground water reservoirs.

4.0 LEVEL OF ACHIEVEMENT OF PLANNED ACTIVITIES

The achievement of planned activities was assessed at objective and output levels. The Contracts signed between NEMA and the individual NGOs/CBOs outlined the specific objectives and key deliverables (outputs) against which performance was measured.

4.1 Micro project objectives

Table 4 gives a summary of the objectives which each of the micro projects aimed at achieving.

Table 4: Summary of micro project objectives

Project title	**District / implementing agency**	**Objectives**
Sustainable water conservation, restoration of tree cover and support to small scale income generating projects	Masaka / TECO	i. To promote rain water harvesting and conservation for domestic use, small scale crop irrigation, and livestock watering during dry seasons of the year ii. To reduce depletion of tree cover through promoting construction of energy saving stoves iii. To promote fruit tree growing for increased household food and income iv. To enhance livestock rearing as a means of diversifying household food and income sources.
Conservation of agricultural biodiversity and indigenous knowledge for poverty alleviation, food security and improved livelihoods	Kayunga /NDA	i. Identification, conservation and propagation of different indigenous drought and pest resistant, and high yielding food crops and fruit trees ii. To enhance soil productivity through organic agriculture and good indigenous agricultural practices iii. To enhance community awareness on gender and other cross cutting concerns iv. Enhance community capacity to access markets v. Identify and consolidate constructive partnerships between farmers, local government systems and project promoters
Promotion of Environmental conservation	Mukono / ACA	i. To conserve forests through promoting the use of energy saving stoves ii. To promote tree planting as a way of conserving forests and improved soil fertility ii. To promote sustainable agriculture practices and waste management

Level of achievement of the planned objectives

The level of achievement of the objectives for each of the micro projects was assessed, and the results are presented in Table 5, Table 6, and Table 7, respectively.

Table 5: Level of achievement of planned objectives in Mukono

objectives	I don't know (1)	not achieved at all (2)	poorly achieved (3)	moderately achieved (4)	fully achieved (5)	exceeded planned targets (6)	Mean Score	Rank
To conserve forests through promoting the use of energy saving stoves	-	5	-	63	32	-	4.21	**1**
To promote tree planting as a way of conserving forests and improving soil fertility	-	-	5	79	16	-	4.11	**3**
To promote sustainable agricultural practices and waste management	-	1	5	68	26	-	4.21	**1**
Average	**-**	**1**	**4**	**70**	**25**	**-**		

In Mukono District, 95% of the respondents on average indicated that the objectives had been achieved "moderately" or "fully" **(Table 5).** In terms of the individual objectives, tree planting ranked last although the actual scores are very close to the other two objectives. Thereafter, the main factors that contributed to successful performance were examined. The following factors ranked highest.

1. Good working relationship between the leaders of the CBO and the communities, and the commitment of the CBO coordinators
2. The project objectives were environmentally suitable for the area and responded to community needs
3. There was high participation of the beneficiaries
4. Favourable climatic conditions

In Masaka, 48% of the respondents indicated that the micro project objectives had been achieved "moderately", "fully", or "exceeded planed targets" **(Table 6).** The low average performance in Masaka was because some of the planned activities were not actually carried out, with greater focus given by the micro project to the objective of water harvesting as preferred by the communities. Among the individual objectives therefore, promotion of rainwater harvesting ranked number one while fruit tree growing ranked last.

Table 6: Level of achievement of planned actions in Masaka

Objectives	I don't know (1)	Not achieved at all (2)	Poorly achieved (3)	Moderately achieved (4)	Fully achieved (5)	Exceeded planned target(6)	mean score	Rank
Promotion of rainwater harvesting and conservation for domestic use, small scale crop irrigation, and livestock watering during the dry seasons of the year	-	-	-	25	75	-	4.75	**1**
To reduce depletion of tree cover through promotion of energy saving stove construction	20	-	-	20	60	-	4	**2**
To enhance fruit trees growing for increased household food and income	43	57	-	-	-	-	1.57	**4**
To enhance livestock rearing as a means of diversifying household food and income sources	33	17	-	-	50	-	3.17	**3**
Average	**32**	**20**	**-**	**15**	**31**	**2**		

The factors which contributed to the achievement of the project objectives were ranked as:

1) Preference of the communities
2) It was environmentally suitable
3) Adequate technical capacity to support implementation
4) High participation of the beneficiaries

In Kayunga, 98% of the respondents stated that on average the project objectives were achieved "moderately" or "fully" **(Table 7).**

Table 7: Level of achievement of planned actions in Kayunga

Objectives	I don't know (1)	not achieved at all (2)	poorly achieved (3)	moderately achieved (4)	fully achieved (5)	exceeded planned targets (6)	Mean Score	Rank
Identification, conservation and propagation of different indigenous drought and pest resistant, food crops and fruit trees	-	-	-	63	37	-	4.37	**2**

Objectives	I don't know (1)	not achieved at all (2)	poorly achieved (3)	moderately achieved (4)	fully achieved (5)	exceeded planned targets (6)	Mean Score	Rank
Capacity building in organic agriculture and promotion of best agricultural practices (including water harvesting)	-	-	5	20	75	-	4.7	**1**
Enhancement of community level capacity to access reliable markets for their products	-	-	5	75	20	-	4.15	**4**
Enhancement of community level awareness about the effects of gender concerns on food security, livelihoods and overall development	-	-	-	74	26	-	4.26	**3**
Average	**-**	**-**	**3**	**58**	**40**	**-**		

Among the individual objectives, capacity building in organic agriculture and promotion of best agricultural practices was ranked number one in level of achievement. Agricultural practices also included the construction of mini dams to harvest water for crop production and use by domestic animals. When the success factors were assessed, it emerged that overall, good working relationship between project staff and communities was ranked as the highest factor contributing to project success. This was followed by preference of the communities, high participation of the beneficiaries, and project activities being environmentally friendly. Others with high ranking included: adequate technical capacity to support implementation, timely release of funds, and favourable climatic conditions.

The general observation in the three micro-projects shows that in order for money to be invested wisely in community development activities, it is important that project staff establish a good working relationship with the communities. In addition, it is necessary that the project deals with what the community prefers. On the other hand, political support, which is traditionally considered to be crucial for project success was among the lowest-ranked factors. Indeed working directly with communities is cheaper and avoids the bureaucracies of district and ensures that funds are allocated to the planned activities. Hence political support may actually not be that important if the project addresses community needs, and has a leadership that works with the people.

In terms of the factors that contributed to poor performance in some aspects of the micro projects are ranked in Table 8. The top five are listed below:

1. Delayed release of funds
2. Inadequate technical capacity to implement the activities
3. Unfavourable climatic conditions
4. Poor working relationship between the leaders of the CBO and communities
5. Inadequate analysis and understanding of the roles of gender

Table 8: Factors contributing to poor performance of micro projects

Failure factors	Not at all (1)	Little (2)	Moderately (3)	Highly (4)	very highly (5)	mean score	Rank
Delayed release of funds	8.3	33.3	33.3	0	25	3	**1**
Inadequate funds to implement the activities	20	40	40	0	0	2.2	**8**
Inadequate technical capacity to implement the activities	25	8.3	25	41.7	0	2.83	**2**
It was not what the communities preferred	72.7	0	27.3	0	0	1.55	**9**
Lack of participation of the would-be beneficiaries	38.5	15.4	30.8	15.4	0	2.23	**7**
Inadequate analysis and understanding of the role of gender	33.3	16.7	33.3	16.7	0	2.33	**4**
It was not environmentally suitable	81.8	9.1	9.1	0	0	1.27	**10**
Unfavourable climatic conditions	41.7	8.3	16.7	16.7	16.7	2.58	**3**
Little political support	27.3	27.3	36.4	9.1	0	2.27	**6**
Poor working relationship between Project staff and communities	50	0	25	16.7	8.3	2.33	**4**

The general observation is that availability of funds cannot guarantee success of the project unless the money is released in a timely manner. Again, a good working relationship among stakeholders and climatic conditions were emphasized in terms of contributing to project poor performance. It is therefore important that these factors remain uppermost in mind during project implementation.

4.2 Achievement of planned outputs

4.2.1 Water harvesting techniques

Water harvesting techniques were promoted by two micro-projects, TECO and NDA, each using different approaches. While TECO focused on harvesting water from the roof into underground tanks, NDA promoted harvesting runoff water into mini-dams. The technologies in both cases were aimed at increasing water supply in the water stressed project areas and improving crop and livestock productivity. The direct users of the technologies were therefore the communities in the selected villages.

In Masaka, TECO had planned to construct one underground water reservoir in the water-stressed parish of Kito, Lwengo Sub-county. However, due to the demand of the communities for clean water, TECO evefntually constructed three reservoirs. The reservoirs were constructed using concrete and cement with a secure concrete covering for the safety of people' lives. One

reservoir (200,000 litre capacity) was constructed in Kibona Village, Kito Parish and was being used as a source of drinking water by 3 villages namely: Kibona, Kabusirabo and Kaserutwe. The second reservoir (of capacity 150,000 litres) was constructed in Kitabyama Village and was being used by 20 homesteads within the village. The third reservoir (150,000 litre capacity) was also constructed in Kito Parish and it serves 60 homesteads from different villages as well. The communities provided land and offered food to builders, and helped in the actual construction work. The work was also supported by the village local council leadership, especially in mobilizing the communities. Three manual water pumps were procured to assist the communities to draw water from the reservoirs.

The water reservoirs are now an important source of clean drinking water to the communities. The communities now have access to clean water, especially during the rainy season. The household where the underground reservoir was constructed monitors the use. The water tanks are well protected with fencing, and are well maintained. However, this maintenance is currently done by the household hosting the reservoirs. This is not healthy in terms of sustainability, and therefore, it will require a committee to mobilize resources for maintenance. The reservoirs are still in good condition, and are likely to continue functioning in the foreseeable future.

It should be noted that the water reservoirs currently are not operating to full capacity because the catchment areas on buildings are too small to fill up the reservoirs. Hence the communities have not received the anticipated volumes of water. Therefore, whereas the initial purpose of the reservoirs was to provide water for domestic use and to support crop and livestock production, the communities had to prioritize the use of the available clean water for drinking purpose only. In their view, the communities did not wish to waste the valuable clean drinking water for other purposes. This is understandable, considering the distance travelled daily (ranging from 3 – 7 Km) to collect dirty pond water from wetlands. Nevertheless, the water is used for some few domestic animals within the neighbourhood. Currently the beneficiary communities walk up to 1 Km instead.

In future, TECO should construct bigger tanks which can store more water for many households in order to assist more households who largely depend on dirty pond waters from wetlands for drinking and household use. However, this requires a large roof catchment that can provide sufficient amounts for storage. The location of the reservoirs within the homestead is also likely to jeopardize community ownership of the water resources, especially if there arise any individual conflicts and interests after end of project. This therefore re-enforces the suggestion to locate the reservoirs at public institutions like schools, faith-based institutions, and local government administration premises. This would also justify the establishment of a Water Management Committee.

In Kayunga District, NDA constructed four runoff water mini dams in four villages of Kiwooza, Bunyumya, Wankyayiraki and Nakaziba, as had been planned. During rainy seasons, the runoff water is collected into these dams, and the communities use this water to irrigate the crops in the gardens to increase yields during the long dry spells experienced in the project area. Two manual water pumps were purchased for farmers to pump water from the reservoirs to irrigate crops during the dry seasons.

The NDA community has started using the water to irrigate crops like vegetables and pineapples during dry spells, and watering domestic animals. Irrigation has given rise to diversification of food crops grown, for example some households are now able to grow vegetables for sale. This has enhanced good nutrition for the families and increased household incomes.

The community has appreciated irrigation and this is evidenced by the way one private individual in Wankyairaki Village adopted the technology by constructing his own mini dam for his family.

The main challenge in the NDA community is how to cover the mini dams to avoid accidents. The timber used to cover the water tanks is easily attacked by the termites, or it rots away and alternative polythene covering is similarly destroyed. The other challenge is how to reduce the cost of construction to make it affordable to the poorer households. For sustainability, the communities should be encouraged to make financial and material contributions towards routine maintenance.

4.2.2 Fruit tree growing for income generation and food security

Fruit growing was promoted by ACA and NDA. The main purpose was to create alternative income generating activities for households, improve food security, and also contribute to the tree cover in the areas. The communities identified and planted mangoes, oranges, avocado and passion fruits. Fruit tree growing in both target areas exceeded planned targets. For example, ACA had planned to plant 2,200 improved fruit trees, but they actually planted 2,500 trees.

The micro projects also set out to provide skills to local communities so that they are able to produce their own quality planting stock. During interviews, the communities in ACA and NDA project areasreported that they had been trained in grafting and nursery management. However, there was no evidence on the ground to show that they were actually applying the skills to produce the fruit trees, may be it is too early. The only nursery seen in Kayunga was producing coffee seedlings under the Uganda Coffee Development Authority Programme.

In Goma Subcounty (Mukono District) ACA supported the communities in Misindye Parish to plant grafted fruits like mangoes, oranges and avocado. The communities established a demonstration plot for passion fruits and oranges on land offered by some members of the communities. In addition, almost every member of the target communities was provided with at least five fruit trees to plant on their land. By the time of this evaluation, the orange trees were fruiting for the second time. With good management they will be able to benefit out of this activity because about 80% of the fruit trees survived. The survival would have been higher had

it not been for the several incidences of neighbours uprooting and stealing planted seedlings which eventually dried up.

In Kayunga, 107 members of the NDA communities were trained in grafting techniques and nursery bed management and are able to prepare and manage their own nurseries. One nursery bed was established from where the training of members in grafting was conducted. Three members of the community offered land on which fruit tree demonstration gardens were established at Kiwooza, Wankyayiraki and Nakaziba villages. A total of 3,500 fruit tree seedlings (mainly mangoes and a few avocadoes) were distributed for growing.

For the NDA communities, fruit trees are an opportunity to diversify their income sources. Though the fruit trees have not yet matured to produce fruit which would be a direct benefit, the communities were expectant of the benefits such as increased income from the sale of the fruits and improved nutrition for the family members.

The main challenge to sustainability of fruit growing was the attack from pests and diseases. For example, on one of the demonstration farms in Kiwooza the monkeys destroyed the mango fruits in the first lot, and diseases affected the young fruits which necessitated spraying. The communities noted that spraying with pesticides was however not considered a good option because they targeted supplying organic fruit markets. There was also a general fear in the NDA group that they might not be able to get access to good markets. However, communities in Mukono who were nearer Kampala did not see marketing fruits as a problem.

4.2.3 Drought and pest resistant crops for food security

The Project set out to address the challenges of food security by introducing drought and pest resistant crops in Kayunga District. NDA promoted the growing and conservation of drought-resistant and pest-resistant yams (*baluggu)* which had been neglected for a long time, and yet it is an important crop for food and cash. Clean yam planting materials were distributed to 20 households. At the first harvest, however, 85% of the beneficiaries ate all the yams without saving for subsequent propagation as had been planned. This is evidence that the practice of reserving planting materials for next planting season is dying among the communities. Therefore this undermined the achievement of the objective of improving food security.

The scope of drought resistant crops that were supported by the project was limited. The project did not promote other drought resistant, pest-resistant species like e*kkobe*, cassava, and improved banana species (*Mpologoma)*.

4.2.4 Tree planting

Tree planting initiatives were planned to be undertaken by all the three micro projects for firewood, timber, poles, shade, soil fertility improvement, and improvement of the environmental conditions. The general observation was that this initiative was not embraced well in the three micro projects. For example, in Masaka, the activity was not done at all because the funds were transferred to construct more water reservoirs as preferred by the communities. In Kayunga, only 50% of the targeted 3,000 seedlings were actually planted. The short fall was largely due to a delay by the Roman Catholic Church to offer land to the neighboring school.

In Misindye Parish in Mukono District, *Grevillea* was chosen as the main tree species for planting by communities. However, the tree was very susceptible to termites attack resulting in a loss of over 50% of the planted trees. This was an example of poor species selection and site matching. *Terminalia* would have been a better species in this eco-zone. Part of the problem that led to poor species selection was inadequate technical backstopping from the technical staff in the district.

4.2.5 Energy saving cook-stoves

All the three micro-projects promoted energy saving technologies. The households within the project areas were the main intended beneficiaries, although NDA and ACA also supported some institutions (primary and secondary schools). Overall, the communities had constructed the energy saving stoves, but there were varying levels of usage. In Kayunga, observations showed that about 60% of the household cook-stoves were being used. In Mukono, only about 20% of the cook stoves were being used. All the three institutional stoves constructed (two in Kayunga and one in Mukono) were being used.

For the institutional stoves, it was reported that the improved cook stoves resulted in 40-50% reduction in the cost and consumption of firewood. It was also reported that the food prepared on the improved stoves remains hot for a long time, which improves the quality of food served. The cook stoves do not emit a lot of soot compared to the traditional ordinary three stone technologies. Hence this has helped the women who normally do the cooking to avoid health problems associated with smoke.

In Kayunga, twenty (20) community members were trained in construction of domestic and commercial energy saving stoves. The communities liked the energy saving stove because once it is ignited, it retains heat for a long time without close attention, and hence the time saved is used for doing other activities.

On the other hand, in Mukono District, people who had used the stoves for a short time people argued that the energy saving stove took long to ignite and heat, and hence it was time wasting. Therefore, most of the stoves were not being used. However, the people who had used the stoves for a long time argued that the stoves needed patience in lighting and waiting for it to heat up, but once heated, it sustains the heat for a long time, which enables the households to cook many items using little firewood.. For the impatient, it is a waste of time, and hence they turn to the traditional three-stone technology.

Two institutional energy-saving stoves were constructed for two schools: at Green Valley High School in Ssukka Village, Nsotoka Parish, and St. Anthony Primary School in Kyampisi, Bukolooto Parish. At Green Valley, the stoves were constructed without considering the size of the utensils actually used by the school. In addition, the cooks and teachers did not participate in the actual construction of the stoves, and hence they did not benefit from technology transfer. Therefore they are not able to handle even minor repairs, and are entirely dependent on NDA.

The institutional stoves are designed to prepare food for a large population, and not a few people but sometimes, the schools have to prepare food in smaller amounts for occasions, and in this, the stoves are deficient.

In Masaka, it was reported that the communities participating in the micro project were trained in the construction of energy saving stoves as a way of reducing on the use of firewood which leads to over-cutting of trees. The project also constructed sample energy saving stoves for demonstration to the communities. Interviews with the communities revealed that only about 20% of the trained members had actually constructed the stoves in their own homes. It was explained that it was difficult to get households that were not given cows to build energy saving stoves, whereas those who got the animals did so without hesitation. This indicates that the interest of the community was elsewhere, raising a question on whether the communities really took part in determining project priorities at the planning stage.

In general, the micro projects should target institutions like schools that use a lot of fuelwood for support in the construction of energy saving stoves. This is supported by the field observation where all the three institutions which benefited from the micro projects were actively utilizing the stoves. The District Education Offices should also play an active role in mobilizing the schools to adopt the use of energy saving stoves to reduce on the amount of firewood used and the rate of cutting down trees.

4.2.6 Livestock breeds

The livestock initiative was intended to diversify household incomes and reduce over-dependence on exploitation of natural resources for income generation. In addition, through use of animal manure, the initiative would contribute to the improvement in soil fertility and productivity. To this end, piglets were distributed in Kayunga, while in Masaka, cows were distributed. It was expected that the first beneficiaries from the community would pass on the female piglets and heifers to other members of the community. However, the duration of the project was too short to allow the transfer to take place. In Masaka the first cow produced a bull, and hence this could not be passed on to the next beneficiary, until it can be exchanged for a heifer. Therefore, there was not enough time for this initiative to spread and demonstrate an impact on poverty reduction.

In Kayunga, a total of 20 piglets were distributed to 20 households, and the beneficiaries were trained in rearing them. The beneficiaries have reared the piglets for one year and the pigs now are of a reasonable size and members are expectant of the benefits from these animals. However, it will take a long time for one piglet per household to generate sufficient benefits to impact on environment. Three piglets out of the twenty died after some weeks. Some of the pigs delivered have piglets which had not yet been distributed to other beneficiaries. Nevertheless, the piggery initiative fitted well into, and complemented the NAADS programme within the

Box 3: Training reduced conflicts
One community member cited that before the trainings with NSONA their animals used to break into their neighbors' gardens who are actually Muslims and they would end up bringing in quarrels and disunity. The members no longer lose their animals through poisoning or beatings.

subcounty. The cost of feeds was the main challenge. The other challenge was that the Muslim households could not benefit from the initiative, and felt left out.

Training in proper management practices, like construction of the pigsty, helped reduce conflicts with the Muslim community **(**Error! Reference source not found.**).**

In Masaka, six (6) cows were given out to six (6) households (five cows in Kito Parish and one in Mbirizi Parish). The project constructed kraals for the farmers and bought one acaricide spray pump to be shared. The subcounty veterinary officer was expected to provide technical support to the households.

While cows are an apparent contributor to income through selling of milk, the number of cows actually distributed to individual households is not able to cause a significant transformation in income earnings for the communities. On average, the local breed gives two litres, equivalent to about UGX 1,000 (approx. US dollars 0.5) per day.

4.2.7 Soil conservation, waste management and organic farming

The micro projects in Mukono and Kayunga promoted soil conservation practices which included use of organic manure generated from household waste. This was expected to improve soil productivity.

Training of communities was conducted and communities were assisted to set up compost manure pits. Observations showed that the field practices which the project had promoted were being applied only to a limited extent at the time of this evaluation. For instance, the old compost pits were seen but they were not being used.

4.2.8 Bee-keeping

Beekeeping was taken up by Kayunga communities as a way of income diversification for the households in the communities covered by the project. A total of 20 beehives were distributed out to 10 households. This was after an intensive training which included a study tour to Kayonza Subcounty to practically learn from the experienced beekeepers. The activity has not yielded benefits because those involved have not yet harvested the honey. Despite this, the members have shown keen interest in the activity, and this was evidenced by some members acquiring additional hives to what they got from the micro projects.

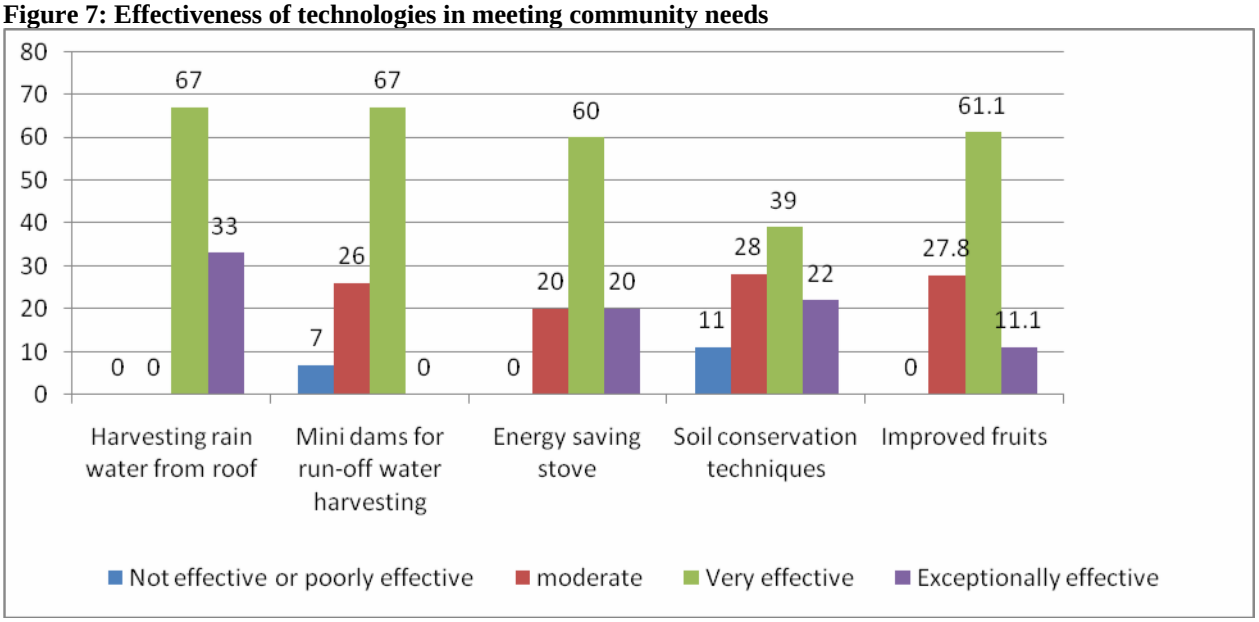
However, beekeeping was encountering some challenge, for example failure for the beehives to be colonized by bees. In addition, the beneficiaries will need to be trained in modern honey harvesting techniques and acquire the right gear.

4.3 Assessment of Technologies

The micro projects applied a number of technologies aimed at improving the livelihoods of the communities without endangering the environment. The main technologies introduced were rain

water harvesting, runoff-water harvesting, energy-saving stoves, soil conservation, grafting techniques, irrigation technologies and the growing of improved fruits. The communities were asked about the effectiveness of these technologies in meeting their various needs. The results are presented in Figure 7.

Figure 7: Effectiveness of technologies in meeting community needs



Overall, the technology for harvesting rain water from the roof ranked highest in meeting the people's needs, scoring 100%, and indicating that it was "very effective" or "exceptionally effective". This was followed by energy saving stoves (80%), improved fruits (72%), mini dams (67%), and soil conservation (61%).

Observations showed that the water reservoirs in Masaka were well constructed. The water from the roof is collected and directed into the reservoirs through gutters and piping. Over one year after completion, the reservoirs have good water retention capacity and are still in good condition. Maintenance is manageable. It was also observed that the reservoirs were being used by the communities as a valuable source of clean water.

67% of the respondents indicated that the run-off harvesting mini dams were "very effective", while 26% indicated that it was "moderately effective", and 7% indicated that it was "not effective" or "poorly effective". Field observations showed that the surface water run-off is collected into excavated min dams (reservoirs) lined with polythene sheeting. The reservoirs have good water retention. However, the polythene sheets and poles covering the mini dams were damaged. The dams are also liable to silting. Maintenance is however manageable. The mini dams were being used by the communities.

Energy saving stoves were generally rated as effective in meeting the needs of the communities, with 20% of the respondents saying it was "exceptionally effective", 60% saying it was very effective" and 20% saying it was "moderately effective". The household and institutional *Lorena* energy saving stoves introduced retain heat for a long time, and were reportedly saving 40-50% in terms of wood consumption and costs. Slow rate of initial heating makes it less popular with some communities. Maintenance is manageable.

Although the grafted fruits have not generally started yielding, the communities look at them as meeting their needs for income generation and food. They are easily planted in home garden systems. The varieties fruit early and are good yielding. However, many of them are prone to attack by pests and diseases.

Soil conservation consisted of application of contour bunds and organic manure on the farm. 89% of the respondents said that the technologies were effective in meeting the needs of the communities. It was considered as a good practice for organic farming, and it was easy to compost manure on farm using household waste, and hence contributing to the hygiene of homesteads as well.

4.4 Value for money

The cost efficiency was considered in terms of outputs delivered on the ground, taking into account the estimated costs of procurement, and the value associated with such outputs, and especially how the outputs benefited the communities.

Table 9 summarizes the key outputs delivered by each micro project

Table 9: Key outputs delivered by the micro projects

Implementing agency	Input (USD)	Output
NDA	20,200	• 2 institutional stoves • Household cooking stoves • Water collection mini dams • 3500 fruit tree seedlings • Training and sensitization including participation in the national agricultural show in Jinja • 20 households supplied with drought resistant species • 20 bee hives • 20 Piglets • 1,500 seedlings of eucalyptus • Administrative costs including bicycles
ACA	7,000	• 2500 fruit tree seedlings • 1 institutional stove • Household cooking stoves • Training and sensitization • Tree planting

Implementing agency	Input (USD)	Output
		• Administrative costs
TECO	7,156	• 3 water reservoirs • Hand water pumps • 6 cows • Demonstration cook stoves • Training and sensitization • Administrative costs including provision of bicycles

Given the outputs outlined, there was good value for money, with tangible benefits actually received and being utilized by the communities. However, if they could achieve this much with the money they received, if they had focused on fewer items, or given more money, the impact on the ground would have been much better.

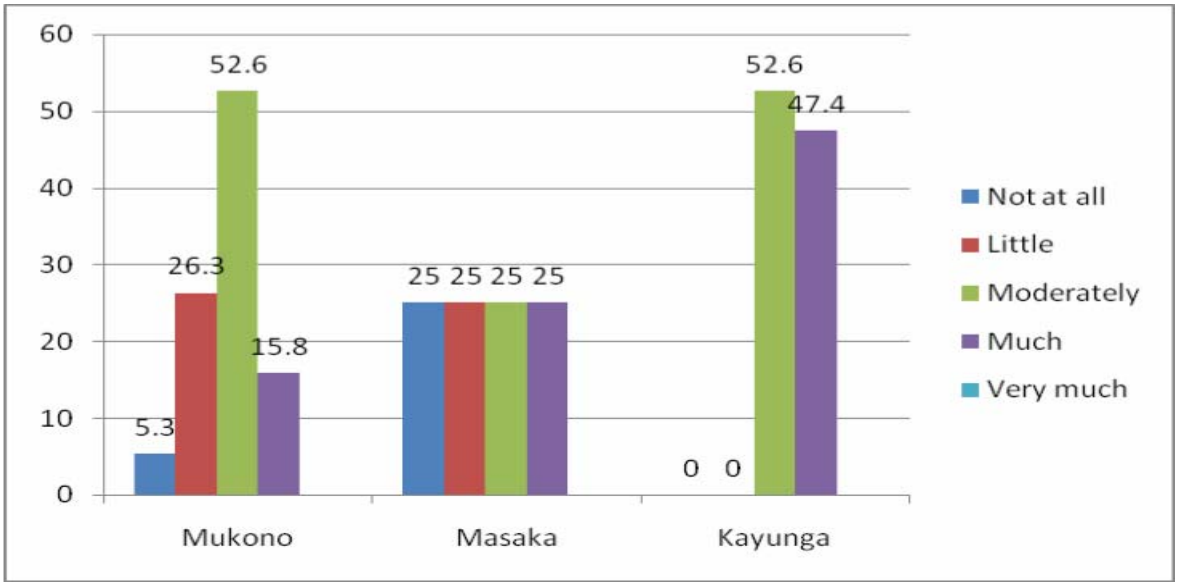
5.0 Impact of micro-project activities

This section was aimed at assessing whether the application of the various technologies resulted in changes in the economic, social and environmental status within the project areas.

5.1 Impact on income generation

The stakeholders were asked to what extent the micro projects had contributed to increasing their household incomes, and the results are presented in Figure 8

Figure 8: Contribution of micro project to household incomes per project area



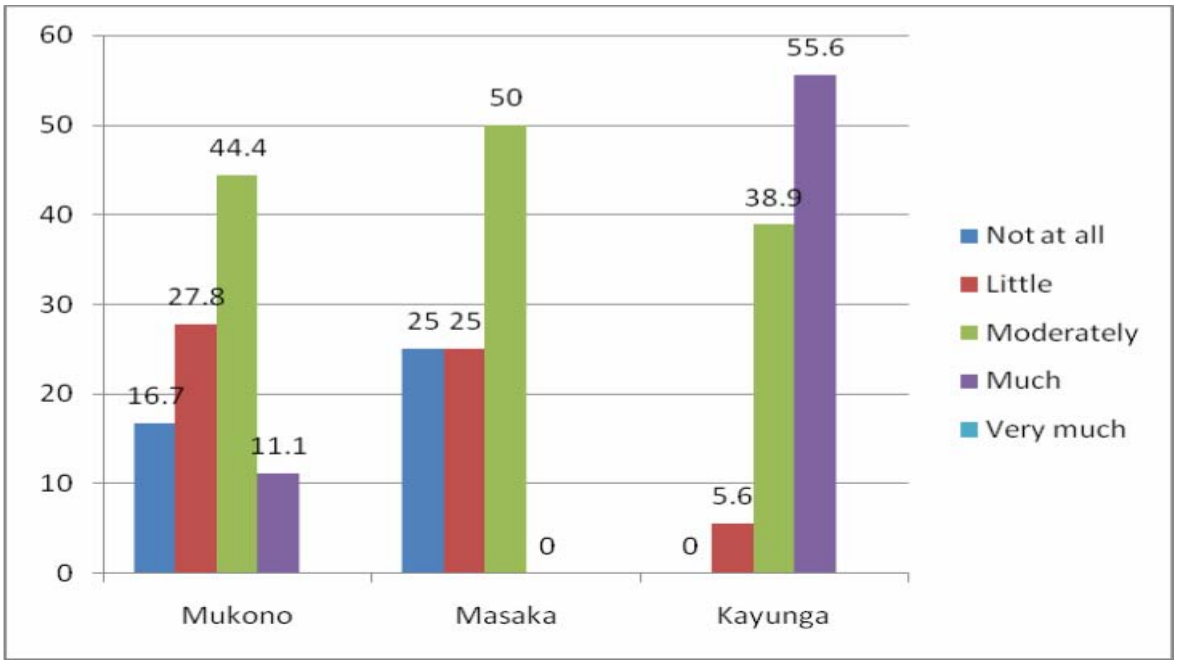
The results indicate that the impact of the micro projects on household incomes varied from project to project. Where the micro project had a number of alternative income generating activities like in Kayunga, the respondents indicated significant contribution as “moderately” or “much”. Some of the activities mentioned as sources of income included tree nurseries, livestock keeping, vegetable growing, and bee keeping. In Masaka, there were mixed feelings, largely because the majority of the communities did not have activities that contribute to direct incomes, apart from rearing of cows by only six members.

In Mukono, the people who grew passion fruits had already earned some income. Similarly, in Kayunga, the community members were earning some income from the nursery, raising mainly coffee seedlings, earning from irrigated pineapples and selling vegetables. In Masaka, one recipient of a cow was selling some milk. However, most project activities, including fruit growing, bee keeping, livestock, had not yet yielded actual monetary gains to the communities, but the communities are expectant that they will generate incomes in the short run.

5.2 Impact on food security

Food security is a key indicator of household wellbeing. The stakeholders were asked about the level of contribution of the micro projects to food security. Figure 9 shows the results from the three project areas.

Figure 9: Impact of micro project activities to food security per project area



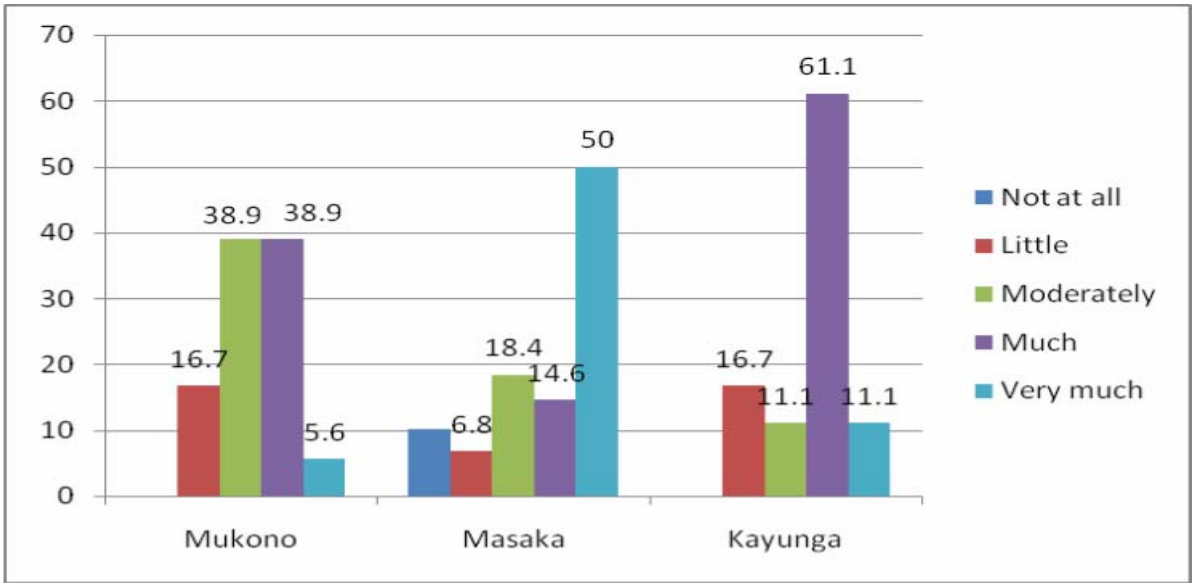
The results indicate that in general there was "moderate" impact of the micro projects to food security. The impact was reportedly higher in Kayunga, followed by Mukono.

The impact of micro projects to food security is related to the type of activities carried out. In Kayunga, most of the activities supported enhanced the productivity of food for households, including planting drought and pest resistant crops, irrigation of crops, fruit growing, and use of organic manure. A similar situation was prevalent in Mukono. In Masaka however, 50% of the respondents indicated that there was little or no impact on the micro project to food security, largely because the activities did not directly support agricultural production.

5.3 Impact on people's health

The stakeholders were asked to indicate to what level the micro projects had an impact on the health of the communities. The impact of the micro projects on health is presented in **Figure 10.**

Figure 10: Impact of micro project activities on people's health per project area



The results show that the micro projects contributed a lot to the improvement of the health of the people in the three project areas. Kayunga registered highest, with 72.2% of the respondents indicating that the micro project had contributed "much" or "very much" to the improvement of people's health. This was followed by Masaka, (64.6%) and Mukono (46.5%).

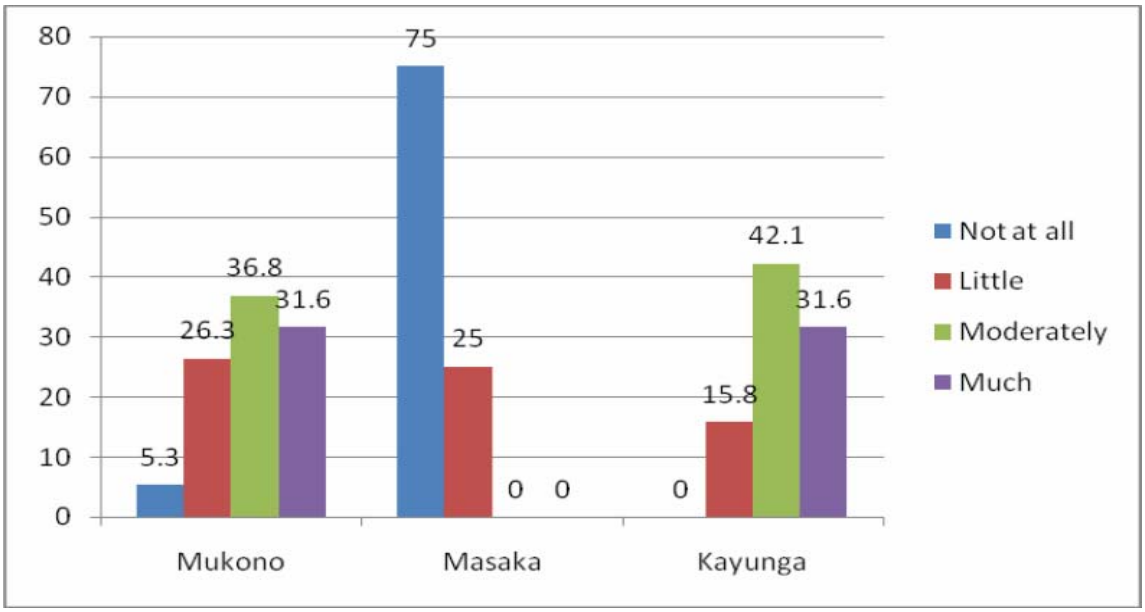
There were a number of reasons given to indicate how the micro projects had contributed to the improvement of people's health. These included:

- The diversification of food crops grown, (e.g. some members are able to grow vegetables and drought resistant crops) which has enhanced good nutrition for the families
- Improved cook stoves produce less smoke and hence are cleaner than the traditional three stone fireplaces, which exposes the users to greater respiratory diseases.
- With the improved cook stoves, the communities can now boil drinking water
- The management of household waste through turning it into compost manure has improved the household hygiene
- In Masaka, the provision of clean drinking water contributed to the improvement of the health of communities who hitherto depended on water from dirty ponds in wetlands, and by decreasing stress associated with collecting such water.

5.4 Impact on the environment (forests, soils, water and wetlands)

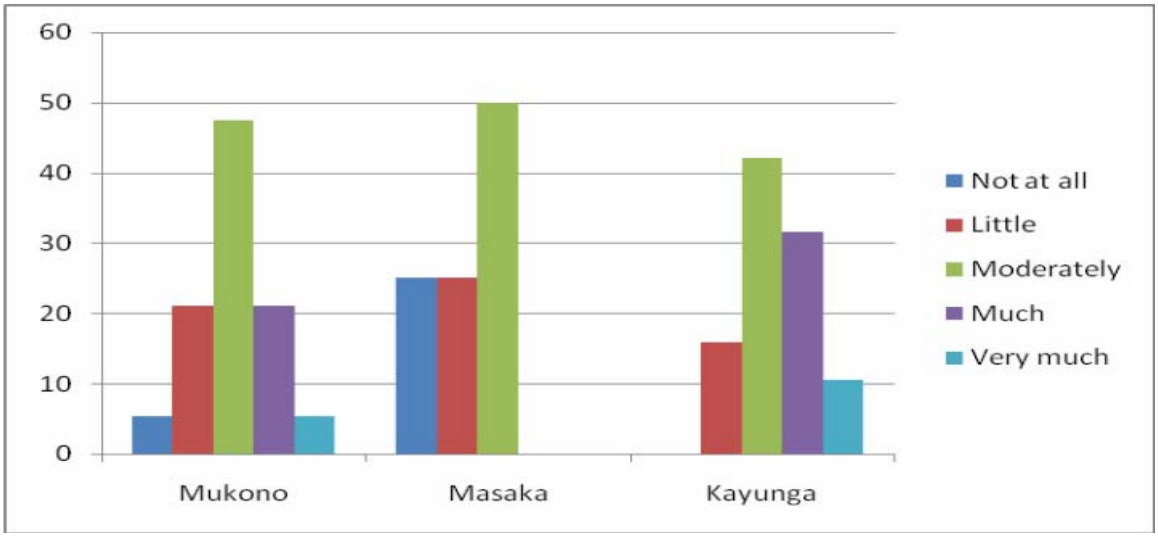
The stakeholders were asked about the level to which micro projects had contributed to changes/impact on forest cover and soils as indicators of changes in the environment. **Figure 11** and **Figure 12** show the results for the impact on forest cover and soils respectively.

Figure 11: Impact of micro project on forest cover



The results show that there was some impact in forest cover created by the micro projects, especially in Kayunga and Mukono, where tree planting (including fruit trees) was carried out. On the other hand, there was little or no impact on forest cover in Masaka, where tree growing was not done, and water harvesting was the main activity.

Figure 12: Impact of micro project on soils



Similarly, the micro projects had "much" to "very much" impact on soils in Mukono and Kayunga, where organic farming was practiced. In Masaka the impact was "little" to "moderate" Therefore, the impact of the micro projects on the environment depended on the nature of activities that were carried out.

5.5 Social impact of micro projects

The stakeholders were asked to what extent the micro projects contributed to various community social attributes. The results are summarized in **Table 10.**

Table 10: Level of impact of micro projects on the communities

	Not at all	Little	Moderate	much	very much	
Community organization	18%	3%	13%	45%	21%	100%
Conflict management	14%	6%	17%	31%	31%	100%
Community mobilization	5%	11%	16%	37%	32%	100%
Community unity	8%	5%	10%	36%	41%	100%
Informed community	8%	21%	24%	26%	21%	100%

The results in **Table 10** show that the attributes listed below had "much" to "very much" impact.

1. Increased community unity (77%)
2. Community mobilization was enhanced (69%)
3. Organizational capacity, with respect to community based leadership (66%)
4. Conflict management (62%)
5. Informed community (47%)

Therefore, in terms of social impact, the communities believed that the micro projects had good impact on community unity.

5.6 Impact on neighbouring communities

The micro projects produced some impact on the communities that were not directly participating in the projects in two ways. First, through peer learning, some adopted the technologies that had been introduced. The technologies which created such response include energy saving stoves in Kayunga and Mukono project areas, water harvesting in Kayunga, and fruit tree growing in Kayunga and Mukono. However, the level of adoption is still low, with a few examples cited. For instance, energy-saving stoves were being used in a restaurant in Wankyairaki Trading Centre in Kayunga, and a number of homes that were not members of NDA were also using the improved stoves. In Mukono, it was reported that one youth was constructing portable stoves and selling them at UGX 8,000

Box 4: A business opportunity from the technology

A resident of Joggo village, Mukono district, was reportedly making and selling portable cook stoves at UGX 8,000 each. These cook stoves were being preferred and offered a business opportunity for the members.

each, and hence earning a living out of the technology **(Box 4)**. In Kayunga, one private investor Mr. Edward Olowo, in the neighbouring village of Buyungirizi after seeing and learning what NDA was doing, mobilized resources and planted 3 acres of fruit trees (Mangoes).

The second category of impact was the expressed demand for the technologies, and requests by the communities to expand the micro project activities to other areas. The technologies most demanded for included water harvesting in Masaka and Kayunga, and fruit growing in Kayunga and Mukono. In Masaka, some villages neighbouring the project area submitted their memos to NEMA requesting for the construction of water harvesting tanks to address the adverse water shortage and quality.

6.0 Sustainability of micro-project interventions

Sustainability of the micro-projects was analyzed in terms of technological, financial, environmental, organizational and social sustainability.

6.1 Technological sustainability

Communities were asked to indicate the level of sustainability by scoring against time periods in which they thought the beneficiaries would continue to apply the technologies after project closure.

Of greatest interest was the water harvesting technologies in Masaka and Kayunga. By construction, the reservoirs are long lasting, and by use they are in general accepted and being applied. Since these districts are prone to drought, it is likely that these technologies will receive greater attention from other stakeholders to promote them. In terms of sustainability underground water reservoirs were considered the most sustainable technology, capable of being used by the communities over four years after end of project.

This was followed by the mini dams and improved cook stoves **(Table 11).**

Table 11: Sustainability of technologies

Technology	Not at all (1)	During the next 1 year (2)	During the next 2 -3 years (3)	During the next 4-5 years (4)	mean score	Rank
Underground water reservoirs	0	0	0	100	4	**1**
Mini dams	0	0	33.3	66.7	3.67	**2**
Improved species of fruit trees for income generation and food security	25	50	0	25	2.25	**5**
Drought resistant, pest resistant and high yielding species of crops for food security	50	25	0	25	2	**6**
Tree seed and seedling production	50	50	0	0	1.5	**7**
Tree planting techniques	50	50	0	0	1.5	**7**
Improved livestock breeds and management techniques	16.7	16.7	0	66.7	3.17	**4**
Improved cook-stoves	0	20	20	60	3.4	**3**

As for cook stoves, several factors that are likely to promote sustainability were observed to obtain on the ground. There was evidence of peer learning wherein the energy-saving stoves have attracted more attention from other communities.

6.2 Financial sustainability

A foundation for financial sustainability has been established through the diversification of income generating initiatives. There was evidence of peer learning in the construction of the energy-saving stoves, and some community members have started making a living out of selling the cook stove. Additionally, with the maturity of the fruit trees, the communities will be able to sell the fruits to earn a living. Better productivity of land through irrigation and increased soil fertility will enhance income generation for the communities.

The micro projects have also resulted in the increased capacity of the CBOs to partner with and leverage resources from central and local government and other civil society organizations. Some of the opportunities that were identified included local government programmes, such as the Community Driven Development Programme (CDDP) and NAADS, Uganda Coffee Development Authority (UCDA), and NOGAM. In Kayunga, it was reported that each parish was to receive from the subcounty UGX 5 million in four years under CDDP, and that NDA communities were likely to benefit from these funds, having demonstrated good performance in the two parishes of Nsotoka and Nakaseta. In addition, NDA has been identified by Kayunga Subcounty as target community organization to implement some of the Local Economic Development Programmes (LEDP) because of their outstanding impact on community development initiatives.

Noting the success achieved, NDA has been identified by the district (Kayunga) as the CBO for the delivery of the NAADS programme in Kayunga Sub-county. In addition forging alliances with other organizations such the Uganda Coffee Development Authority, other NGOs such as KARITAS that are operating in other parts of the district has the potential to ensure continuity.

6.3 Environmental sustainability

The contribution of the micro projects to environmental sustainability is in the positive direction. In the foreseeable future, the planted trees and reduced consumption of firewood through improved stoves are important in improving the forest cover in the areas. The provision of clean drinking water in Masaka, and use of improved cook stoves have reduced exposure of the communities to environmentally related diseases. As the communities continue to realize these benefits, their response to sustainable environmental management is likely to increase.

6.4 Organizational sustainability

The micro projects have resulted in improved knowledge and skills of the different implementing CBOs for effective community mobilization, project design, implementation and monitoring. They are also able to identify relevant strategic alliances to support project implementation. They have also built the capacity to mobilize and utilize resources to achieve

tangible benefits for the communities. For instance, NDA is a member of Kayunga District NGO Forum and Kayunga District Farmers Association (KADIFA). The organization has also established links with NOGAMU, which trained the members in organic farming technologies. NAADS has provided technical support to the farmers especially in piggery, and NDA has registered with the Subcounty NAADS, and this will enable them to provide services to the communities under NAADS programme in areas where they have comparative advantage within the subcounty.

6.5 Social sustainability

The activities of the project were in line with the basic needs of the target communities and focused on supporting the poor to develop their capacity to improve their livelihoods through acquiring new skills. The project social interventions may bud and flourish after the project, especially if the poor and marginalized access markets for their products. In this regard, the project may continue to have a direct and positive social impact on the local communities involved.

Fifteen (15) NDA members were selected to participate in the Literacy Adult Functional Program to empower them with skills and knowledge to be able to read and write and keep records. NSONA has actively participated in other development programmes within the subcounty. These include the Functional Adult Literacy Programme organized by the subcounty.

7.0 Best practices and lessons learnt

7.1 Best practices

1. The deployment of resources directly to the benefiting CBO is a good approach to ensure that these resources reach the intended recipients expeditiously.

2. The harvesting of rainwater from roofs provided clean water which does not need chemical treatment before being used for drinking. This can be an excellent way of sustainably providing clean water to poor people in water stressed areas.

3. The project has promoted the use of inexpensive, locally available materials to provide technologies that address issues and needs of the communities. For example, locally available clay used in construction of energy saving stoves, and poles for covering mini dams.

7.2 Lessons learnt

1. It is easier to work with informed communities, since they are aware of the problems affecting them and are able to understand the strategies to address the problems. The projects have contributed to the creation of informed communities, through multi-sectoral sensitization and training.

2. Women empowerment has greatly improved in Uganda. This can be seen from the fact that in these micro projects, women ranked highest among the micro project beneficiaries, which is often difficult to achieve even when the projects themselves expressly require direct focus on women.

3. It is good to start with small targets in order to gauge the real interests of the communities. Subsequently, additional resources can be channeled to the real needs of the communities. For example, in Masaka, one water reservoir had been originally planned for construction. Subsequently, the communities expressed demand for more water reservoirs, instead of the other planned interventions.

4. The contribution of the communities, through some form of cost sharing, such as provision of land, materials in kind or labour, strengthens the ownership of the micro projects by the communities, and also enhances sustainability of the initiatives

5. Energy saving stoves are useful in cutting down on costs of providing meals in institutions like schools and hospitals.

6. Starting with micro projects provides the knowledge and skills needed to handle production enterprises at a larger scale. In addition, it builds the capacity of the CBOs to handle resources entrusted to them for community development, and leverages more resources, so that they can be able to handle bigger projects.

7. The success of community development initiatives depends more on the extent to which such initiatives address community needs, level of community organization and the availability of leadership that works with the people.

8. The local government technical officers are important in supporting micro project formulation, implementation, monitoring, and providing technical support. Therefore, the micro projects should always identify and involve the relevant District and Subcounty technical officers at various levels of the projects.

8.0 Conclusions and Recommendations

8.1 Conclusions

1. The design of the micro projects addressed the objectives of the Poverty-Environment Initiative on demonstrating the importance of the poverty-environment linkages for poverty reduction and improved human wellbeing at local level. The priority activities were designed to address key environmental problems relevant to the individual project area, including deforestation, loss of soil fertility and productivity, and harsh environmental conditions leading to water stress. The communities were supported to improve their capacity to generate income, while contributing to the conservation of the environment. It also addressed local community productivity constraints by providing relevant training and technologies.

2. The participatory approach to project formulation and implementation enhanced fair distribution of available resources and contributed to the achievement of the planned objectives. However, it is doubtful whether the communities fully owned the micro-projects because they ranked NEMA and the political leaders as top among the beneficiaries. This implies that the attitude being portrayed by the communities is that this was a "Government Project" rather than their own.

3. The micro project approach is a viable option to enlist community participation in managing environment and natural resources. In general, the communities have limited absorption capacity to handle developmental enterprises, and therefore micro projects are helpful in building the absorption capacity of the communities. Since the three micro projects effectively used the level of resources provided, it is now possible to entrust them with more resources because they demonstrated that they can deliver tangible results to the communities. Additionally, the CBOs have acquired more skills requisite for the implementation of related development initiatives.

4. The design and formulation of the micro-projects was relevant to the environment-related policies and legislation of Uganda, in line with the global initiatives, and fitted in the broader local and national level programmes of community development. For instance, the provision of water in water stressed areas, improvement of environmental conditions, and support for income generating activities are all in line with the draft National Development Plan because they provide an enabling environment to support "growth, employment and prosperity for all". The sustainable management of natural resources is also a priority area in the Plan for Modernization of Agriculture (PMA). Environmental management is mainstreamed into District Development Plans (DDPs), and hence the micro projects addressed priority environmental concerns within the districts, and also complemented the local programmes such as NAADS.

5. Linking into the national and local development programmes offered opportunities for building partnerships that are important in leveraging resources to implement poverty-environment related programmes at grass-root level.

6. There was a strong indication that the project outputs will be sustainable to an appreciable extent, especially in those outputs which addressed immediate community needs. These included water harvesting in Masaka and Kayunga, and fruit growing in Mukono.

7. Generally, the micro projects did not have substantial visible impact on the quality of natural resources such as forests. This was partly because the period of the project was too short, and the project spread too thin in terms of activities, and therefore, the resources could not allow implementation of activities to a level that is sufficient to realize substantial impact on the natural resource base.

8. The micro projects were designed in such a way that NEMA could deal directly with the CBOs implementing the project. This arrangement eliminated the slow bureaucratic procedures of government, and therefore, the communities reported that delay of funds did not affect the achievement of the intended outputs. However, the limited participation of the local government technical staff resulted in inadequate technical backstopping. In bigger projects, this is likely to be a significant drawback in project implementation.

8.2 Recommendations

1. As has been observed before, the micro projects addressed very many issues over a short period of time (about twelve months). Coupled with this, the budgets were generally modest. This was spreading resources thin on the ground, and therefore in future, such micro projects should focus on one community priority. This should be planned in such a way that subsequent interventions can build on the foundation of the micro project in order to produce critical volumes for the markets, and break through the vicious cycle of producing for subsistence. For example, in Mukono, the first community priority was fruit growing. Therefore the funds should have been used to support fruit growing only instead of spreading over the many activities that were done, leading to the low levels of achievement observed on the ground. Likewise in Masaka, water was crucial, and hence emphasis should have been placed on water harvesting.

2. In the design of micro projects, focus should be placed on identifying activities, enterprises or initiatives that address the most critical need of the community. This would ensure that the meager resources available through the micro projects are used on priorities that yield the greatest impact.

3. Micro projects that can be implemented by a larger portion of a community over time should be supported to enhance economies of scale in marketing of products, increase economic viability and hence poverty eradication. For example, a micro project that can be implemented by at least 50% of the population in a subcounty would attract a better market than small unlinked household initiatives.

4. The participation of women in the micro projects was ranked highest by stakeholders. This is commendable and therefore, future interventions on environment-poverty linkages should learn from these micro projects in project design and implementation.

5. Micro projects that demonstrate the linkage between poverty and environment, especially in respect of physical natural resources like forests and soils, generally take more than two years before impact can be felt among the communities. Therefore, in future, such projects should be designed to be implemented over a period of at least five years.

6. Governmental officers and district staff must be involved in the planning and implementation of activities in order for the local communities to get the correct information and guidance. District staff can also ensure that the activities planned are in line with the district plans.

Annex 1: Terms of Reference (ToRs) for the Evaluation of the three Micro Projects funded by the PEI Uganda

1.0 BACKGROUND

The overall goal of the UNDP-UNEP Poverty and Environment Initiative (PEI) is;
To contribute to poverty reduction and improved well-being of poor and vulnerable groups through mainstreaming of environment into national development processes. The objectives at country level are:

- Inclusion of environmental sustainability as a central objective in national development strategies, such as poverty reduction strategy papers (PRSPs), MDG implementation plans or equivalents;
- Increasing national budget allocations towards the environment;
- Building the long-term capacity of the government to integrate environmental concerns into the design and implementation of development plans.

Phase I of PEI in Uganda started in March 2005. The first workplan was completed early 2007. Phase II commenced in May 2007 and is expected to run until December 2008.The Government of Uganda (GoU), through the National Environment Management Authority (NEMA), is responsible for the implementation and coordination of the project. The main national partners are: NEMA, Ministry of Finance, Planning and Economic Development (MFPED), Makerere University Institute of Environment and Natural Resources (MUIENR) and three NGOs: Advocate Coalition for Development and Environment (ACODE), Uganda Environment Education Foundation (UEEF) and Environment Alert. The donors are Belgium and Norway (through UNEP). Funds are distributed through NEMA. During its first phase PEI Uganda carried out the following activities:

- Review of the existing poverty reduction policies, plans and programmes and projects for their adequacy in addressing environmental concerns, identifying gaps and suggesting recommendations for improved environmental mainstreaming (available at: http://www.unep.org/dpdl/poverty_environment/PDF_docs/UG_final_rpt_prsp.pdf) ;
- Country report on ecosystems, their services and linkages to human well-being (available at: http://www.unep.org/dpdl/poverty_environment/PDF_docs/UG_ecosystems_rpt.pdf)
- An integrated ecosystem assessment (using the Millennium Ecosystem Assessment methodology) in Lake Kyoga catchment;
- Training of civil society organizations on poverty and environment linkages;
- Three micro projects at the local level demonstrating the importance of the poverty-environment linkages for poverty reduction and human wellbeing have been identified and supported.

This consultancy relates to the latter activity which is to be evaluated. The three micro-projects are described briefly as follows: They are located in Lwengo sub-county (Masaka district), Goma sub-county (Mukono district) and Kayunga sub-county (Kayunga district). Each was run by a community based organisation or NGO with whom a contract was made to carry our specific tasks and to report on same. All were concerned with activities to improve the condition of the people by improving the availability and efficiency of use of at least one natural resource.

2.0 Objectives of the consultancy

The objectives of the consultancy are:

1) To establish whether the activities were carried out as planned and if not, why
2) To assess the technical success and sustainability of the methods used; eg; are the reservoirs still holding water, being used, by whom, what proportion of the trees are established and yielding?
3) To asses the level of participation in the project –was it equitable?
4) What number of people benefited against the proposed targets? Who participated
5) The impacts on technology, skills and information transfer, people's quality of life and other unexpected impacts.
6) What were the wider impacts of the micro-projects? e.g. Did poor people benefit? Were there multiplier effects after the funding stopped? Was it good value for money?
7) Was there appreciation of the poverty and environment linkages? If so explain who and how.
8) To find out what lessons can we learn from such projects, to make recommendations to UNDP-UNEP PEI regarding funding such projects and to suggest which lessons should be publicized for others to learn from.

3.0 Tasks for the consultant

The consultant shall perform the following tasks:

1) Review all current information on the projects and on the community based organisations running them
2) Be up to date on the technologies tried in order to be able to effectively evaluate them
3) Prepare an evaluation plan including an observation checklist, questions for those whom it is intended to interview, a list of those who will be consulted and using what methodologies, a schedule for making the visits.

4.0 Methodology

The consultant will use a combination of methodologies:
These include:

(i) Review of existing documents and literature including.
(ii) Stakeholder consultation, through direct field work, including those in the community who were not directly targeted by the interventions.
(iii) Reference to the state-of-the-art on the technologies applied.

5.0 Qualifications and Capabilities

The consultant shall be qualified in Environmental Science, Rural development, Community/Social Science, Agricultural Science, Environmental economics or equivalent with at least 7 years experience of working on environmental management and /or rural development projects and programmes. S/he will have practical research and evaluation skills proven through experience of similar assignments. Excellent English language reporting skills, a clear thinker with sharp analytical capacities.

6.0 Output

The consultant will produce a report containing the background information researched, the findings from the field studies answering the checklist given in 2.0 (objectives) above, the analysis of the findings, lessons learned, recommendations and suggestions for lessons learned to be given wider publicity. The report shall not exceed 30 pages (excluding annexes) and shall be written in English with a two page executive summary in both English and Luganda.

7.0 Time frame

The following timetable will be followed:

- Preparatory phase and secondary sources review. 2 days.
- Field work at 3 sites. 8 days.
- Write-up and submission of draft report 3 days.
- Incorporation of comments and finalization of report. 2 days.
- Total consultancy days = 15.

7.0 Reporting

The consultant will be reporting to the Executive Director of NEMA but will be supervised in their day to day activities by the Focal Point and the Poverty and environment Officer of the UNDP/UNEP Environment Poverty and Initiative Uganda Project

Annex 2: Programme for the Study

Date	Place	Activity
Monday 5th October, 2009	Kayunga	• Travel from Kampala to Kayunga • Courtesy call on subcounty and NDA offices • Visit project sites • Administration of questionnaires to communities
Tuesday 6th October, 2009	Kayunga	• Visit District officials • Focus group Discussions at subcounty • Administration of questionnaires • Interview of key informants
Wednesday 7th October 2009		• Travel to Masaka
Thursday 8th October, 2009	Masaka	• Courtesy call on subcounties and TECO offices • Visit project sites • Administer questionnaires to communities • Interview key informants
Friday 9th October, 2009	Masaka	• Visit District officials • Focus group Discussions at subcounty • Administration of questionnaires • Interview key informants • Return to Kampala
Tuesday 13th October, 2009	Mukono	• Travel from Kampala to Mukono • Courtesy call on subcounty and ACA offices • Visit project sites • Administration of the questionnaires to communities • Interview key informants
Wednesday 14th October, 2009	Mukono	• Visit district officials • Focus group Discussions at subcounty • Administration of questionnaires • Interview of key informants • Return to Kampala

Annex 3: List of persons met

Name	Organization	Designation	Contact
1. Derrick Tenywa	NSONA	Coordinator	0772 404711
2. Sempaka Kigongo Emma	NSONA	Officer Administrator	0753 150042
3. Kigenyi Richard	Green Valley Secondary school	Head teacher	
4. Yunus Kabaga	NSONA	Member	
5. Ssaku Edward	NSONA	Chairperson	0782 418843
6. Pamba David	NSONA	Secretary	0703 248139
7. Kityo Samuel	NSONA	Member	0753 013326
8. Lwanga Godfey	NSONA	Member	0755 382098
9. Sematimba	NSONA	Member	Wankyayiraki village
10. Patrick Musaazi	Kayunga Local Government	District Environment Officer	
11. Muloma Sam	Kayunga Local Government	Senior Agriculture Officer	
12. Immaturate Galimuka	Kayunga Local Government	District Information Officer	
13.			