NATIONAL BEST PRACTICES REPORT
TANZANIA

NBI / NTEAP / MGP

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Acknowledgement

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Acronyms and Abbreviations

AIDS	Acquired Immune Deficiency Symptoms
BP	Best Practice
BRAC	Buhemba Rural Agricultural Centre
CBI	Community Based Institution
CBO	Community Based Organization
ECOVIC	East African Communities' Organization for Management of Lake Victoria Resources
FAPOEL	Family Poverty Elimination Programme
HIV	Human Immunodeficiency Virus
KADET	Kagera Community Development Trust
KADETFU	Kagera Development and Credit Revolving Trust Fund
kgs	kilograms
LMGC	Local Micro Grant Coordinator
MG	Micro-grant
NBI	Nile Basin Initiative
NGO	Non Governmental Organization
NMGC	National Micro Grant Coordinator
NPC	National Project Coordinator
NTEAP	Nile Transboundary Environmental Action Project
SIDA	Swedish International Cooperative Agency
SVP	Shared Vision Program
VISA	Village Sharing Agency

Executive Summary

The Nile Transboundary Environmental Action Project (NTEAP) is one of the eight projects under the Nile Basin Initiative (NBI) Shared Vision Programs (SVP). The main object of NTEAP is to provide a strategic environmental framework for the management of the transboundary resources and environmental challenges in the Nile River Basin. The NTEAP has five components, including the Community-Level Land, Forest and Water Conservation Component. The component supports pilot activities in geographic and thematic areas of transboundary significance. It demonstrates the feasibility of local level approaches to land and water conservation, including mitigation action for erosion, non-point source pollution, invasive weeds, environmental awareness and non-governmental organization (NGO) networking. The component consists of three sub-components, one of which is the Nile Transboundary Micro Grants Programme that supports community-driven interventions to address transboundary environmental threats on local scale.

NTEAP has established major activities on the ground as well as other activities that are of significant importance to the riparian countries and have an impact on the environment of the basin. All these activities are implemented in collaboration with the riparian governments, communities, CBOs, NGOs and School communities respectively. The collective objective of these activities are to pilot innovative approaches to land and water conservation measures at the local level, but which have a global significance.

Through national consultative workshops, Tanzania selected eleven candidate best practice initiatives. The selected projects/activities were presented and discussed at a national level where six out of eleven activities were finally labeled as best practices. The selected six projects were further verified at the regional level through discussions by the relevant entities and all of them were retained as best practice projects/activities from Tanzania.

The six best practices which were identified in Kigali were further scrutinized and validated using various tools by the best practice team. This report is the output of the regional consultant, the Ministry of Water and Irrigation (MoWI), Vice President's Office – Division of Environment and the NTEAP staff in Tanzania.

1. Introduction

The art of Best Practice emphasizes that there is a technique, method, process, activity, incentive or reward that is more effective at delivering a particular outcome as compared to any other similar approach. In other words, with proper processes, checks, and testing, a desired outcome can be delivered with fewer problems and unforeseen complications. A best practice can be selected from several competing options. The concept of best practice does not commit people or companies to one inflexible, unchanging practice; instead, best practice is a philosophical approach based on continuous learning and due improvements. Best Practice is a concept that a good process and planning is being followed in the implementation/execution of a project plan, and that outcomes are being tracked and documented.

Best practices are identified by asking the right questions in the right sequence and giving equal value or weighting to each question. The common questions are: (a) what is the challenge at hand; (b) are the applied interventions innovative; (c) does the intervention have a demonstrated positive impact to the environment and/or beneficiaries; (d) is it currently being sustainably used; and (e) can it be replicated or up-scaled in a similar context. In addition, Best Practices are initiatives around the world harnessed by people, communities and governments to solve critical social, economic and environmental challenges. The idea here is to document initiatives addressing environmental concerns at local scale in an integrated manner, but which (a) remain always innovative in addressing environmental concerns; (b) facilitate the exchange of lessons learned from experience; and (c) promote policy dialogue and behavioral change.

2. Best Practice Concept: Basic Definition:

Generally, within the NTEAP, the art of best practice is defined as a visibly sustained impact of an innovative project/Programme brought about by a particular design, a technique, a process, a methodology and finally delivered with fewer problems and unforeseen complications.

Specifically, in environmental management, the concept of best practice is literally defined as the most efficient and effective series of outcomes that have proven desirable and further generate sustained impact, both on the resource base and beneficiaries. As such, they could be further replicated or up-scaled in similar ecosystems; advisably with a recorded multiplier value.

As a conduit for knowledge management, the best practice concept facilitates wide exchange of information, enhances trading of sustainable good operating systems" and promotes cross-border, transboundary and regional cooperation.

3. Best Practice Number (1): Artificial Mass Production of Cat Fish (*Clarias garipepinus*) for long-line fishery in Lake Victoria

3.1 Background:

Ukerewe Island is very popular for fishing. Various types of fish are harvested including very small species to the giants Nile Perches. In order to catch the Nile Perche, the fishermen, in most cases, use the Cat Fish (*Clarias gariepinus*) as bait to attract them to their nets. Currently, there is a competition of fishing the Cat Fish in the Lake where the major markets are the Nile Perches constitutes a high demand in all major fish markets in the island and along the Lake shore. The Cat Fish is at threat due to habitat destruction caused by the juvenile collectors who over harvest them from all sources namely, the Lake, river side streams and flood basin. The island is also facing a loss of traditional livelihoods resulting from poor production of rice, cotton and cassava. Family Poverty Elimination Programme (FAPOEL), in ameliorating those potential threats, organized its members and designed an integrated project. The main objectives of this initiative is to: (a) promote cat fish and Tilapia Nilotica fish pond farming for further use as baits, income generation and local and consumption; (b) enhance capacity of the community and their leaders in environmental conservation and promotion of the technique of fish farming, vegetable production and poultry raising; and (c) enhance food security, particularly for widows and orphans in the island.

3.2 Justification for Selection:

This project was selected due to its innovativeness in trying to explore avenues for alternate source of livelihoods following the failure of the traditional livelihoods to sustain the increasingly growing rural population in Ekerewe Island. Moreover, by involving many stakeholders including widows and youth, the project intended to use the NBI grant resources as seed money to attract different donor to fund the project.

3.3 Technical Approach: Design and Methodology

The main idea behind the project is to promote sustainable livelihoods and enhance income generation within the context of a preserved environment in the rural setting of Ukerewe Island. This is justified by the declining productivity of the main traditional crops such as cotton, cassava and rice which failed to sustain a continuously growing population of the Island. In the proposed alternative livelihoods emphasis was given to vegetable production, poultry raising and fish farming. The main activities of the project were premised on an initial household survey intended to assess the existing problems pertaining to food security and explore possible avenues for income generation activities in the island. This was followed by a village-based demand analysis, resource mobilization and building a broader partnerships in order to support the implementation of the main activities pertaining to the project. In this context, a number of farmers had been trained on household gardening, poultry raising and construction and management of fish farming ponds. Conclusively, the project strategy is three – fold: firstly, to enhance productive capacity building of the rural communities; secondly, to build an income generation base; and thirdly, to disseminate the technology of fish farming in the island. In pursuit of that, the main outputs include increased vegetable production, enhanced income generation and improved food and nutrition.

3.4 The Essence of Best Practice: Benefits and Lessons Learnt

The essence of a best practice project takes into consideration three key issues namely, accrued benefits and lessons learnt, sustainability and replicability. To enhance productive capacity 197 people were trained and acquired demonstrative skills in vegetable production, fish farming and poultry raising. In order to sustain the critical activities of the project, selling of Cat Fish fingerings to farmers generated a total income of one million shillings in the first cycle of the project. In due course the total income of selling fingerings of Cat Fish to farmers will amount to two to three million shillings. One female beneficiary farmer reported that she sold a number of chickens for 375,000 shillings during the first season.

As warranted by the fragile social situation the project was obliged to provide some widows and orphans with free chicken as a quick fix poverty alleviation

strategy. Lastly, the project remained as a center of excellence for capacity building in the above mentioned three areas of support.

Plate (1): Fish at the Incubation Pond

Plate (2): Fish Pond

Plate (3): Poultry Raising

Plate (4): Vegetable Production

3.5 Limitations and Challenges:

The main limitation pertinent to the project is the rudimentary physical infrastructure which normally constrains mobility and mass contact of the villagers.

3.6 Partnerships:

The main partners to the project include village beneficiaries, NTEAP, SIDA, Local Administration, Traditional Leaders, Heifer International Project, Tanzania Fisheries Research Institute, (TAFIRI), Sokoine University of Agriculture (SUA), ECOVIC Tanzania, Pataj Organization and Ukirigulu Agricultural Research Center

3.7 Conclusion:

Demonstrably, this project is a good example of using NBI grant resources as seed money in order to mobilize additional cost sharing funds from other potential donors, such as SIDA and Heifer International Project. In order to replicate the project in other areas a detailed demand analysis at the household level of the targeted villages has to be conducted. Moreover, this has to be supported by awareness raising and active mobilization of the local leaders. As we can glue from the above mentioned benefits, the project can easily be replicated, up scaled and disseminated in a sustainable manner. Lastly, in order to address the environmental challenges, a hybrid technology of solar and wind energy has to replace the existing diesel propelled water uplifting system. Also in a broader context, capacity building on households gardening has to be strengthened.
For further dissemination of the project activities outreach programmes for exchange of knowledge and skills among target communities within member countries have to be encouraged.

4 Best Practice Number (2): Promotion of Indigenous Knowledge in the Management of Tree Seedlings in Nurseries

4.1 Background:

Ngono River discharges its water into the Kagera River some 16 km. downstream of the Kyaka Road Bridge. The river is an important contributor to both Lake Victoria and the Nile basins. The water level of Lake Victoria has fallen to the extent of preventing the boats from landing at several ports in Muleba District. This phenomenon is indicative of shortfall in the annual rainfall in the catchment area of Kagera and Ngono river basin which has persisted for a number of successive years. The annual rainfall shortage has been caused by the environmental degradation through wanton destruction of natural vegetation by the intensive deforestation, influx of refugees, land clearing for new settlements, charcoal, shifting cultivation and cutting fuel wood for commercial purposes and brick kilns. Other causes include poor agricultural practices such as, cultivation in the areas surrounding river sources, reckless burning of bush fires for land clearing for new farms, tick control by cattle keepers, perpetuation of fresh pastures for livestock. To mitigate the above mentioned environmental threats, KADET undertook community based interventions which involved: (a) training

people at the grassroots and creating their awareness on basic environmental issues; (b) conducting physical environmental rehabilitation around the source of Ngono river; (c) preventing land degradation through community based afforestation; and (d) reducing poverty through establishment of income generating activities for youths and women groups.

4.2 Justification for Selection (Innovativeness):

The innovative nature of the project stems from the fact that tree nurseries can be established by using locally available materials such as banana tree/ biomass tubes and manure instead of the polythene tubes which are non biodegradable material thus it is not environmentally friendly. In addition, the biomass tubes act as composite manure during planting of the seedlings.

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4.3 Technical Approach: Design and Methodology:

The main idea behind the project is to promote indigenous knowledge in the management and treatment of tree seedlings in nurseries and protect the environment in Muleba district. This is justified by the recorded increase in the price of polythene tubes and industrial pesticides which were used by the project to manage the nursery. In addition to that, there was also a recorded increase of used polythene tubes in the nurseries at schools which could not decompose in the soil. Due to the fact that the project location was very close to the source of Ngono River, excessive use of industrial pesticides was a threat to the quality of the water as well as to the river itself. As an alternate solution to reduce the cost of nursery management and improve the school environment emphasis was given to the use of naturally available biomass tubes made from banana and bamboo stems and organic pesticides made from locally available herbs and medicinal trees. The main activities of the project were building the capacity of the beneficiary groups, establishment of four tree nurseries with the capacity of 12,000 tree seedlings, production of biomass tubes and organic pesticides and planting of trees. The project strategy is three – fold: firstly, to enhance productive capacity building; secondly, to protect and conserve the environment; and thirdly, to disseminate the traditional knowledge on nursery management. In pursuit of that, the main outputs include improved environment, increased traditional knowledge of nursery and trees management and increased vegetation cover.

4.4 The Essence of Best Practice: Benefits and Lessons Learnt

The essence of a best practice project takes into consideration three key issues namely, accrued benefits and lessons learnt, sustainability and replicability.

To enhance productive capacity 8,794 students were trained with demonstrated skills in nursery and trees management, production of traditional pesticides and use of biomass tubes. In order to sustain the critical activities and reduce the costs, the project used the biomass tubes and traditional pesticides. Within the duration of the porject, the total of 12,000 trees were raised by using traditional knowledge and thus saving a total of TShs 100,000 which would otherwise be used to purchase industrial polythene tubes, pesticides and fertilizers. Two groups of farmers reported to use the biomass tubes and traditional pesticides. The implementation of this project resulted into increased awareness on use of indigenous knowledge in nursery establishment and tree management. As warranted by the fragile environmental situation the project was obliged to provide free traditional knowledge to school students on how to produce biomass tubes and pesticides.

4.5 Limitations and Challenges:

The main limitation pertinent to the project was the difficulty in transporting the seedlings from the nursery to distal woodlots, thus pose some difficulty in large scale interventions and that the biomass cups appeared to be vulnerable to be attack by termites.

4.6 Partnerships:

The main partners to the project include village beneficiaries, NTEAP, Muleba District Council and Primary Schools.

4.7 Conclusion:

It is obvious that this project is a good example of using NTEAP grant resources as seed money in order to mobilize school communities to adopt/transfer traditional knowledge in nursery and trees management. In order to replicate the project in other areas, a detailed demand analysis at the household level of the targeted areas has to be conducted. Moreover, this has to be supported by awareness raising and active mobilization of the local leaders, community members and the students at schools. By realizing the above mentioned benefits the project can easily be sustained, replicated, up-scaled and disseminated in similar ecosystems. Lastly, in order to address the project implementation challenges improved transport facilities should be available in support of large scale tree planting. To minimize implementation challenges, projects networking with similar initiatives should be encouraged in order to solve the termite problems.

5 Best Practice Number (3): Promotion of Up-land Rice in Kagera Region

5.1 Background:

KAFETFU project was implemented in two districts namely Muleba and Bukoba in Kagera region. These districts are experiencing a number of environmental threats mainly: (a) severe land degradation mainly in croplands; (b) loss of wetlands; (c) loss of forest resources due to pressure exerted by land users and shifting subsistence practices; (d) high growth of population; and (e) unsustainable farming methods. These potential threats resulted into land degradation which, in most cases, forced many land users to encroach over the marginal and fragile areas that were reserved for grazing as well as into the wetlands. As a result there was a decrease of water resources that usually flow downstream into the lake and a reduction in the recharge of the aquifer or underground water.

As a consequence of that aquatic flora and fauna become potentially endangered. Destruction of wetlands created by encroachment accelerated the erosion process which resulted into increased sediments in the lake. This in addition to the leaching of agricultural chemicals from crop lands which usually cause pollution of the Lake water. Since wetlands are the major source of freshwater for domestic uses such pollution creates unhygienic environment and thereby enhances spread of diseases and epidemics. KAFETFO in collaboration with the affected community proposed to implement this intervention with the objectives to: (a) conduct community-based productive capacity building and awareness raising on wetland conservation; (b) promote and adopt new agricultural production practices i.e. up land rice; (c) enhance nursery establishment and intensive tree planting; and (d) protect water springs.

5.2 Justification for Selection:

The innovative nature of the project is justified by the shift to grow upland rice instead of farming along the wetland areas, hence reducing pressure on the latter. Moreover, the upland rice variety uses little water, produces high yields and takes little growing time compared to lowland rice variety. This means that while the community is given alternative source of livelihood and income they simultaneously assist in the conservation of the wetland areas.

5.3 Technical Approach: Design and Methodology:

The rationale behind the project is to promote livelihoods, protect the wetlands and enhance income generation in the rural setting of Muleba and Bukoba Districts.

This is justified by the recorded loss of the main traditional staple food crops such as bananas and cassava. That in addition, to the recorded increase of pests that attack the bananas and cassava as well as the potential loss of wetlands which were encroachment over by farmers in their search for new farmlands. In the proposed alternative livelihoods emphasis was given to the production of upland rice. The main activities of the project were premised on an initial baseline survey intended to assess the existing problems related to food security, income generation and loss of wetlands in the two districts. This was followed by demand analysis, resource mobilization and building a broader partnerships. In order to support the implementation of the main activities pertaining to the project a number of farmers had been trained in upland rice production and wetland conservation. Conclusively, the project strategy is three – fold: firstly, to enhance productive capacity building; secondly, to build an income generation base; and thirdly, to enhance wide dissemination of the technology of upland rice production in the two districts. In pursuit of that, the main outputs include increased upland rice production, enhanced income generation and improved food security.

5.4 The Essence of Best Practice: Benefits and Lessons Learnt:

The essence of a best practice project takes into consideration three key issues namely, accrued benefits and lessons learnt, sustainability and replicability. To enhance productive capacity 625 farmers were trained with demonstrative skills in upland rice production and wetlands conservation. In order to sustain the critical activities of the project each farmer was given 30 kgs of rice and returned 50kg of rice from the first harvest which was given to new farmers in the following year. A farmer who received 30 kgs of rice harvested 1,000 to 1,500 kgs of rice provided that there was sufficient rainfall and proper farm management. One beneficiary farmer reported that he harvested 700 kgs of rice, used 70 kgs for food, 30 kgs for planting and sold 600 kgs for 600,000 shillings during the season. As warranted by the fragile social situation of the area the project was obliged to provide some farmers with free 30 kgs of rice as a quick fix poverty alleviation strategy. Lastly, the project remained as a center of excellence for capacity building in upland rice production and provision of good quality rice seeds.

Plate (5): Beneficiary of the upland rice

Plate (6): Demonstration farm for upland rice

5.5 Limitations and Challenges:

The main limitation pertinent to the project was the vulnerability of unripe rice to the birds that usually reduce its yield. This situation forced many farmers to remain long in their farms chasing birds out in order to avoid any damage to the crop.

5.6 Partnerships:

The main partners to the project include village beneficiaries, NTEAP, Uganda Vice Presidents Office, Civil Society Organizations, Kolping Society, Evangelical Lutheran Church in Tanzania, Local Administration, World Vision Tanzania and Traditional Leaders.

5.7 Conclusion:

Demonstrably, this project is a good example of using NBI grant resources as seed money in order to mobilize farmers to promote upland rice production and conserve the wetlands. To replicate the project in other areas, a detailed baseline survey needs to be conducted. This has to be supported by awareness creation, mobilization of farmers and leaders, consultation of organizations dealing with upland rice production, capacity building, effective implementation and rigorous monitoring. Referring to the above mentioned benefits the project can easily be replicated, up scaled and disseminated in a sustainable manner. Lastly, so as to address the up land rice production challenges, research needs to be conducted on how birds can be controlled through ecological methods. Also in a broader context capacity building on farm management has to be strengthened in order to improve the yield per unit area of land. For further dissemination of the project activities/outcomes outreach programmes within member countries growing upland rice have to be encouraged.

6 Best Practice Number (4): Promotion of Biogas in Bunda District:

6.1 Background:

Bunda district is among the five districts of the Mara Region. The average altitude of Bunda district is 1200 meters above sea level with annual rainfall of about 700 mm. Mara Region is characterized by sharp increase in the human and animal populations, loss of vegetation cover and encroachment over arable catchment areas in search of farmlands. Due to the above mentioned ecological threats there was severe land degradation, loss of soil fertility and water recharge from Rubana River into Lake Victoria had gone down. To address the above situation VISA Organization proposed a project with the objective to build the capacity of the community in order to be able to conserve and protect the threatened environment of Rubana River catchment area. The project strategy is three-fold: firstly, establishment of multipurpose nurseries; secondly, promotion of the use of biogas technology as an alternative source of energy through construction of a demo-biogas plants at the Prison Department; and thirdly, enhance community awareness on environmental conservation.

6.2 Justification for Selection:

The promotion of the use of biogas by the project appeared to be an appropriate option in the area since the area experienced a high demand for firewood by some formal institutions. The implementation of the biogas project did not only result in the cessation of tree cutting, albeit enhanced tree planting in the area in order to accelerate recovery of the ecosystem.

6.3 Technical Approach: Design and Methodology:

The main idea behind the project is to promote utilization of biogas in order to protect the forests along the Rubana River catchment area. This is justified by the recorded decrease of the natural forests and loss of biodiversity. This is further aggravated by the recorded increased number of public institutions that primarily depend on fuelwood as a source of energy. The main activities of the project included an initial baseline survey intended to assess the existing problems pertaining to loss of forests and demand for firewood traditional energy experienced by the community and some public institutions within the catchment area. This was followed by demand analysis, resource mobilization and building a broader partnerships in order to support the implementation of the main activities of the project.

In addition, a number of artisans had been trained in biogas structural construction, operations and maintenance. Conclusively, the project strategy is two–fold: firstly, to enhance productive capacity of the community; and secondly, to disseminate the biogas technology Rubana catchment area. In pursuit of that, the main outputs include increased utilization of biogas technology and increased forest conservation.

6.4 The Essence of Best Practice: Benefits and Lessons Learnt:

The essence of a best practice project takes into consideration three key issues namely, accrued benefits and lessons learnt, sustainability and replicability. To enhance productive capacity 24 people were trained with demonstrative skills in biogas construction, operation and maintenance as well as in forest conservation. In order to sustain the critical activities of the project one biogas unit of 30 cubic meters was constructed for the Prison Department to reduce their immense demand for fuelwood. The project recorded a decrease of monthly fuelwood consumption from 21 to 12 tones at the time when the project was in full swing. Further dissemination of the technology will result on less dependency on fuelwood as a source of energy and hence more conservation of forest lands. In view of the state of poverty the project was obliged to provide direct technical support and construction materials; whereas labour and locally available components were provided by the beneficiaries. Lastly, the project remained as a center of excellence for capacity building in the above mentioned two areas of support.

Plate (7): Biogas Unit

Plate (8): Tree Nurseries at Bunda

6.5 Limitations and Challenges:

More biogas units and consequently more energy outputs are needed in order to effectively enhance environmental protection and conservation and finally reverse the demand for firewood in favor of biogas technology.

6.6 Partnership:

The main partners to the project include community leaders, local government, NTEAP, schools in Bunda District and Bunda Prisons Department. In view of the importance of the technology and the relatively higher initial construction cost more partners in support of funding, capacity building and monitoring need to be engaged.

6.7 Conclusion:

Demonstrably, this project is a good example of using NBI grant resources as initial investment in order to further attract and mobilize public institutions, experiencing high demand for firewood, to utilize biogas energy with the objective to conserve the forest resources within Rubana River catchment. In order to replicate the project in other areas a detailed demand analysis at the household as well as institutional levels in the targeted area has to be conducted. Moreover, this has to be supported by awareness raising and active mobilization of the local and institutions' leaders. As we can glue from the above mentioned benefits, the project can easily be replicated, up scaled and disseminated in a sustainable manner. Lastly, in order to address the demand challenge a bigger biogas plant has to be constructed to supplement the existing biogas unit.
Also in a broader context mobilization and capacity building on biogas utilization has to be strengthened.

7. Best Practice Number (5): Goat Loan Scheme:

6.8 Background:

Buhemba Rural Agricultural Centre (BRAC) is a church supported organization whose main objective is to stimulate environmental sustainable farming, enhance food security and promote equity. BRAC is responsible for supporting farmers by linking them with external means of production. A mini baseline survey conducted in three project villages revealed the following threats: excessive trees cutting for charcoal and firewood, use of rudimentary traditional farming techniques, lack of awareness of environmental issues and soil erosion due to rain water runoff. In order to ameliorate the situation, the community members proposed a number of interventions namely: (a) use of locally available resources to conserve the environment; (b) capacity building on contour farming; (c) planting of trees at households and community farms; (d) protect the natural water sources; (e) enhance extension services; (f) adopt improved animal husbandry practices; (g) strengthen environmental conservation by laws; and (h) establish bee keeping farms. After identifying the problems and prioritizing, proposed solutions were turned into objectives and activities.

The main activities include launching of capacity building porgrammes, distribution of dairy goats, planting of fodder crops and trees, preparation of compost.

6.9 Justification for Selection:

Goat restocking programme is found effective in environmental conservation, poverty reduction and improvement of the health status of children and people infected with HIV/AIDS.

6.10 Technical Approach: Design and Methodology:

The main idea behind the project is to promote sustainable livelihoods, protect the environment and enhance income generation in the rural areas of Musoma District. This is justified by the recorded decrease of household income, poor nutritional status of children and HIV/AIDS infected individuals and environmental degradation. In the proposed alternative livelihoods emphasis was given to restocking dairy goats which produce milk as a source of income as well as nutrition. The main activities of the project include an initial household needs assessment in connection with food security and income generation in Musoma area. This was followed by demand analysis, resource mobilization and building a broader partnership. in order to support the implementation of the main activities of the project a number of farmers had been trained in goat keeping and fodder production. Conclusively, the project strategy is three – fold: firstly, to enhance productive capacity building; secondly, to build an income generation base; and thirdly, to disseminate the approach of dairy goat restocking in the project area. In pursuit of that, the main outputs include increased milk production, enhanced income generation and improved environment.

6.11 The Essence of Best Practice: Benefits and Lessons Learnt:

The essence of a best practice project takes into consideration three key issues namely, accrued benefits and lessons learnt, sustainability and replicability. To enhance productive capacity 150 farmers were trained with demonstrative skills in dairy goat keeping and fodder production. In order to sustain the critical activities of the project, each farmer was given a she goat and returns the first born she kid to BRAC which in turn passes it to a new farmer identified by them. In due course the total number of she goats returned from farmers was 150 which amounted to about twenty million shillings. One female beneficiary farmer reported that she sold four liters of milk daily for 216,000 shillings during the season. In realizing the sate of poverty the project was obliged to provide some poor farmers free she goats as a quick fix poverty alleviation strategy. Lastly, the project remained as a center of excellence for capacity building in the above mentioned three areas of support.

Plate (9): Diary Goat Keeping

Plate 10: Fodder for diary goat feeding

6.12 Limitations and Challenges:

The main limitation pertinent to the project was the existence of lung diseases which killed many goats and whose treatment was not yet known to the farmers.

6.13 Partnerships:

The main partners to the project include village beneficiaries, farmers' motivators, NTEAP, Local Administration, Community Leaders, Heifer International Project, Roman Catholic Church and SCC VI Agro-forestry Project.

6.14 Conclusion:

As documented, this project is a good example of using NBI grant resources in order to mobilize farmers to adopt goat keeping for milk production, as an economic incentive, so that they get involved in environmental conservation porgrammes. In order to replicate the project in other areas a detailed demand analysis at the household level of the targeted area has to be conducted. Moreover, this has to be supported by awareness raising and active mobilization of the community leaders. As we can glue from the above mentioned benefits, the project can easily be replicated, up scaled and disseminated in a sustainable manner. Lastly, in order to address the challenges on diseases routine goats' vaccination by the local government extension officers has to be enhanced.

Also in a broader context coordination, cooperation and a stronger partnership between farmers and local government extension officers has to be strengthened. For further dissemination of the project activities outreach programmes within member countries have to be encouraged.

8. Best Practice Number (6): Involving School Communities to Conserve Lake Victoria:

6.15 Background:

Schools located along the lake shore in Musoma district were facing serious environmental challenges and threats namely, non point sources pollution resulting from the agricultural activities, excessive trees cutting in search of fuel, Illegal fishing practices, excessive land degradation, inadequate environmental education and awareness, poor enforcement of environmental conservation laws and by-laws, encroachment by cattle keepers into the schools compounds/parameters and absence of wind breakers which led to the destruction of some school roofs. In response to that the Anglican Church implemented a school environmental conservation project with the objective to address the above identified challenges. Two schools located along the Lake were selected in Musoma District. Key project intervention include: (a) support and enhance capacity building in environmental health education; (b) establishment of multipurpose tree nurseries and woodlots; and (c) promotion of organic farming activities in schools. The project is innovative by using the schools community as a key entry point to the community at large.

6.16 Justification for Selection:

The innovativeness of involving schools as centers to mobilize the communities and in attracting donors to support the project, labeled it as a best practice. The community members were fully involved in the replication of the project activities through the impact of each of the students back on their families.

6.17 Technical Approach: Design and Methodology:

The main idea behind the project is to protect the environment and enhance environmental health education in the rural setting along Lake Victoria shores. This is justified by the recorded increase of soil erosion along the lake, free grazing, uncontrolled bush fire and the increased use of inorganic pesticides and fertilizers. In the proposed alternative solutions to the above identified challenges emphasis was given to trees planting, organic farming and promotion of environmental health education. The main activities of the project include an initial baseline study intended to assess the existing problems pertaining to non point source pollution to the lake and the prevalence of water borne diseases.

This was followed by situational analysis, resource mobilization and building a broader partnerships. In order to support the implementation of the main activities of the project a number of school teachers, pupils and school committee members had been trained in nursery and tree management, organic farming and environmental health education. Conclusively, the project used schools as entry point to promote its strategy which calls for enhancement of local capacity in environmental health education, promotion of organic farming and strengthening tree planting along the lake shores. In pursuit of that, the main outputs include increased environmental health awareness; reduced soil erosion and increased yield of organic based crops.

6.18 The Essence of Best Practice: Benefits and Lessons Learnt:

The essence of a best practice project takes into consideration three key issues namely, accrued benefits and lessons learnt, sustainability and replicability. To enhance productive capacity 836 people were trained with demonstrative skills in nursery and tree management and organic farming. In order to sustain the critical activities of the project the school neighboring communities who adopted the project activities, demonstrated at the school, were provided with tree seedlings. The school which benefited from the project harvested five sacks of organic produced maize and used them to feed the pupils. As warranted by the fragile social situation the project was obliged to provide some community members with free tree seedlings as an up scaling strategy for tree planting intervention. Lastly, the project remained as a center of excellence for capacity building in the above mentioned three areas of support.

Plate (11): Pawpaw tree at Chumwi Primary School

Plate (12): Woodlot at Chumwi Primary School

6.19 Limitations and Challenges:

The main limitation pertinent to the project was the termites which attack seedlings and trees.

6.20 Partnerships:

The main partners to the project include village beneficiaries, NTEAP, SCCV Agro-forestry Project, Local Administration, Victoria Farmers and Fishers Initiative and neighboring schools.

6.21 Conclusion:

Demonstrably, this project is a good example of using NBI grant resources as seed money in order to mobilize communities to protect the environment of the lake shore through school communities. In order to replicate the project in other areas a detailed situational analysis of the targeted area has to be conducted. Moreover, this has to be supported by awareness raising and active mobilization of the community and school leaders. By combining the above mentioned benefits the project can easily be replicated, up scaled and disseminated in a sustainable manner. In order to address the pests' challenges, capacity building on pests' resistant tree species of the field extension officers/ has to be enhanced. Also in a broader context, capacity building on environmental health education in schools has to be strengthened. For further dissemination of the project activities outreach programmes within the schools and neighboring communities have to be encouraged.