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# **Project Title**

Enabling Economic and Social Empowerment of Local youth and Women and conservation of Fresh Waterways of Lake Victoria Fisher Villages of the Winam Gulf through Livelihoods Diversification and Environmental Leadership Capacity Building

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### Chapter One - Introduction

The Lake Victoria region is endowed with very rich biodiversity but the predominant economic activity is fishing owing to the fact that most people are involved in either the fishing business for the men or the fish mongering business for most women. The region is also endowed with resources such as wetland raw materials and eco cultural aesthetic attributes. Despite being so rich in biodiversity, this is still among the poorest regions in Kenya. It is riddled with the effects of climate change, over population, under development and old norms and traditions which enforce a patriarchal society that undermines the development of the women in these rural communities.

This project is aimed at addressing issues such as livelihood insecurity and exploitation. We find that the overreliance of the wetland communities on the fish business has resulted into great depletion of the fish stock, environmental degradation and therefore enhanced poverty in the region. It has also resulted into exploitation of women through a sex for fish culture where they are forced to exchange sexual favors so as to get fish to sell and fend for their families. The other issue is freshwater ways pollution and wetlands degradation and reclamation. The fresh waterways which also have the potential of greatly improving the livelihoods of these communities are facing intense pollution from consumers such as tourists, households, businesses and towns in the hinterland and degradation as a result of the drastic effects of climate change. The participation of women and youth in Natural Resource Co-management Governance; these villages are composed of co management structures such as Beach Management Units. But many a times we find that these groups are just composed of men hence women and youth are not included in any decision making on the same resources which greatly impact their lives.

The main goal of this project is to build the capacity of local fisher folk communities to protect their waterways and diversify their livelihoods for improved well-being. The interventions which will lead to the achievement of this goal includes local blue economy livelihoods diversification which targets women and youth and enable green livelihoods to reduce overdependence and overexploitation in fishing enterprises and; local stewardship and Waterkeeping which will also targets women and youth and enables them become effective and efficient citizen scientists in environmental quality monitoring. This report focuses on the initial survey of the local communities and the recruitment of beneficiaries; the issues which were brought up in the needs assessment which was conducted during the project inception. It also illustrates how the insights from the three villages informed the design and development of training curriculums on each topic of interest for the project. It further describes the details of the training, the reactions from the project beneficiaries, the issues which were highlighted and the evaluation of the trainings including the greatest takeaways from the beneficiaries. Finally, it outlines the achievements thus far, challenges which were encountered and how they were overcome, the plans for the next implementation phase and the objectives to be met.

Chapter Two - Initial Community Survey and Recruitment of Project Beneficiaries

# **Initial Community Survey**

This was a two day exercise which involved taking a survey throughout the villages to identify how large the scope of recruitment should be and from which particular groups the potential beneficiaries will come from. We have worked in these communities before, therefore we had a good working relationship with the community gatekeepers and leaders going in. We managed to have conversations with the community leaders and explain to them our needs and the people we would wish to recruit and how they will benefit from the project.

The basic criterion for selection of the beneficiaries was women and youth who had the interest and passion for environmental protection while also sustainably utilizing the environment's resources for development of sustainable livelihoods. Women were to be the main focus of this recruitment, especially widows, orphans and young girls from under privileged homes who need capacity building so as to make better lives for themselves. Some of the issues which came up during this initial survey were that most of the people in these villages have been trained with one NGO or the other on livelihood and health issues but there happened to be no sustainable outcome from the trainings. We therefore assured them that we will facilitate the start of businesses and conduct in depth trainings touching on tangible issues which they will be able to use and sustain in the long run.

Upon reaching an understanding with the focal community members on who we needed for the project, they embarked on walking into the communities with the help of our volunteers and explaining to them what is to come and what is needed from the. We managed to secure a good number and arranged for a day to meet them in a group and discuss the project even further

### **Dunga Project Inception Meeting**

The first meeting was held in Dunga Wetland Village which was attended by 14 women and 2 young men. The meeting began by an introduction of each member who also mentioned what they are currently involved in in their lives. There were 4 young girls who had just completed their form four education but had no resources to continue with further education. There was one young man who completed his college education a couple of years back but has not managed to secure any form of employment and was currently just doing menial jobs. There were 7 women who are involved in papyrus harvesting and mat making and they also did fish mongering when the season was too wet to harvest any papyrus. There was one lady who was involved in local tour guiding in the Dunga Wetland but was hardly making any money. The other three people were fish mongers and a fisherman.



Photo 1: Dunga Project Inception Meeting

The meeting then commenced with a brief introduction of the project as being about empowerment of women and youth in environmental leadership, conservation and entrepreneurship, the role that Ecofinder Kenya will play in the project and the support being accorded by the Canadian Embassy. We then conducted a Needs assessment in which we posed questions to the group to gauge their problem areas in the five thematic interventions as outlined by Ecofinder Kenya. The results of this needs assessment were;

#### Training Needs Assessment

Most of the members of the group were aware of the need for environmental protection and monitoring of their wetlands and waterways but did not have the technical knowhow and therefore were interested in learning. Based on traditional knowledge, they were aware that their wetlands had greatly depleted over the years and also mentioned that this has affected their lives in many ways. They therefore needed to learn how they could restore their wetlands and learn how to recycle the plastic and other waste that they have in their surroundings.

The women and youth who were in the meeting, none of them were part of or had ever been involved in any co management structure. This was greatly hindering their development in the community as their issues were not represented and therefore only the men got to be represented. They were very much interested in learning the options which were available to them and how they could also become part of natural resource co management as well as taking up environmental leadership roles in their communities.

The women had also been doing weaving using water hyacinth and papyrus reeds, but they mostly made baskets, mats, ropes and trays. They said that there had been in the business for years but the market was not so good. They would have wished to be taught how to make other things as it was their thought that this would help in improving their market. They suggested to be trained on smaller items like house hold stuff and gifts which could be sold easily to visitors and people who are just passing by.

They had also been doing their businesses for some time but they had not been able to improve on it or grow it more. They were just where they started and had even collapsed a number of times before which meant that they were not having any income for a good period of time. There were others who had also never been engaged in any businesses and would have wished to learn the concepts and most importantly, resource mobilization and book keeping as these were their most problematic areas.

### INTERESTING POINT ONE

On sustainable tourism and women in tour guiding, this was an interesting case. They were once facilitated by an international donor to start a "Women in Tour Guiding Group" and practice in Dunga Beach tourism destination. This was however a complete flop as they were overpowered by the men tour guides and operators who had been operating in the destination. They therefore had a big concern about starting up this venture since they had tried it and failed before. They needed to find a way to penetrate into the market but there was no enabling environment for this, owing to the patriarchy and discrimination in the community.

We however explained to them that this might be because they were not thinking big enough and were fighting the men for territories that they had already marked for years. We assured them that our approach was going to be different because the ventures that we will establish for them will not see them struggle for customers at the gates of Dunga Beach. That we were working on the entire Lake Victoria Basin and Western Tourism Circuit and then establishing for them an online platform where their visitors could book in advance before coming to the destinations.

This was well received and greatly sparked the interest in learning and getting engaged in the sustainable tourism enterprise.

### Project Description and Sustainability Issues

Upon completion of the needs assessment, Ecofinder Kenya comprehensively explained what the project will entail and how it will be carried out. The key message which was highlighted was the need for sustainability of all the interventions which will be carried out by the group but with facilitation from Ecofinder Kenya. We explained the importance of facilitating their starting the two nature based enterprises as they were meant to economically empower them as well as provide them with the facilitation they will need to keep taking care of their environment so that it can also provide them with the resources they need to take care of themselves.

# **Kusa-Koguta Village Inception Meeting**

In this village, the meeting was also started by a round of introductions whereby each member was asked to mention what they were currently doing. The meeting was attended by 17 people of which 13 of them were women and 4 of them were young men. They were involved in activities such as farming, papyrus harvesting, fishing fish mongering and some were selling groceries in the markets in the evening.



Photo 2: Koguta Wetland Village Inception Meeting

### Training Needs Assessment

The Ecofinder Kenya team briefly introduced the project, the supporters and the roles of all the parties involved in the project. This was then followed by questions posed to the group on the proposed interventions to the issues which they are facing in their lives and their environment. The results of the needs assessment were as follows:

- 1. The participants had a rich understanding of their environment, biodiversity and potential for livelihoods but they did not have any know how on how they could exploit them sustainably to better their lives.
- 2. The women here were also not involved or part of ay co-management structures in the beaches and the wetland and they would have wished to be included so as to have their issues and interest also represented well. They therefore were interested in the natural resource co-management and leadership training so that they can understand fully the options which are available for them
- 3. There were some of the participants who had some knowledge of weaving but they claimed that they do not do it a lot because there is no market or ample market which can sustain them in such a business. This was their major concern about the craft making training and enterprises as they did not see there being demand for the products. We assured them that market goes far and beyond their villages and neighboring communities and we will teach them how to open their minds to bigger markets, explore and penetrate into wider and further markets for their products. We also introduced to them the online portal which is meant to market their products far and wide.
- 4. Sustainable tourism and tour guiding is one of the ventures which have not been exploited in the area before. They however have had a couple of water sport tourism over the years and there was one which was even going on when we visited the area during the initial survey. There was a boat racing sport which had brought together people from other counties to participate in and witness. They were open and excited to learn and get into it.



Photo 3: Boat Race Preparation in Koguta Wetland Village

# Project Description and Sustainability Issues

After the needs assessment was completed, the Ecofinder Kenya team the comprehensively described the project and how the interventions will be implemented. The key message was on sustainability and maintaining the activities as well as growing them over the years so that more and more people from the village could become part of it. The businesses were well received and the environmental activities were also well appreciated since they were concerned about the continued degradation of their once very vibrant wetland and surrounding environment. The next steps were also highlighted for the beneficiaries who eagerly were waiting to begin the learning process.

# Yala Wetland Village Inception Meeting

The meeting was commenced with a round of introductions which in which everybody was asked to mention what they were currently engaged in. The meeting was attended by 22 potential beneficiaries where four of them were men and 18 of them were women. There group consisted of farmers, fishermen, fish mongers, tour guides, students who just completed their education and some women who were at home taking care of the children.



Photo 4: Yala Wetland Village Project inception Meeting

### Training Needs assessment

After the introduction, the Ecofinder Kenya team gave a brief introduction of the project and the supporters highlighted the issues we were trying to address and our interventions. A needs

assessment was conducted where questions on the proposed interventions were posed to the group and the following were the issues which were highlighted:

- 1. The beneficiaries were aware of the environmental problems which they are facing in their wetland and waterways and how this has affected them over the last couple of years. The community (Hawinga-Kaugagi) is a climate change hotspot in western Kenya therefore they get affected a lot by climate variability which has added to their poverty creation and underdevelopment.
- 2. They also had conflicting mindsets because in as much as they appreciated the roles that healthy and restored played in their well-being, they were also of the idea that the economic activities which they were currently engaged in were their only way to survive (Wetland farming and indiscriminate fishing).
- 3. Most of the women who were in the group had the knowledge of weaving mats from papyrus reeds but they had not been doing it a lot because of the lack of a market to sell their products
- 4. Some of the beneficiaries were also aware of the tourism potential of the area and the tourism products which they had. They mentioned the wild animals, the papyrus endemic and other unique bird species, the Lake Kanyaboli National Reserve and their landscape among others
- 5. They had however not been able to exploit this potential because of lack of knowledge and the idea that there is no demand for it since they would not even know how they would start getting visitors attracted to the site.
- 6. Most of them also run their own very small businesses, in that none of them was formally employed and they only relied on selling different goods for their daily bread and fending for their families. They however noted that some of them have been doing the same things for years but had never grow their businesses or done anything different and because they lacked any skills, they were left stuck to survive with whatever little they could get.
- 7. They therefore iterated that the business training would be highly beneficial to them and they were also excited about learning new skills which they could use to diversify their livelihoods and make their lives better. They showed interest in making crafts and asked to be trained I making more unique and different things from the ones which were dominant in their communities the traditional mats (par) and furniture.

#### Project Description and Sustainability Issues

After the completion of the needs assessment we comprehensively described the implementation plan for the project and how the issues that they had brought fourth will be incorporated in the training modules which were being prepared. We also emphasized on the sustainability of the interventions and how this will be achieved in the long run.

#### INTERESTING POINT TWO

Women are predisposed to be care givers and to stay home and take care of their children; at least this is the mindset in some of these rural communities. Most women are not able to acquire any skill or develop any further because they have to be at home to take care of their children. During the inception meeting, these women decided to break this barrier by bringing their children into the meeting and subsequently into the trainings.

It was very powerful to see how there was a great thirst for knowledge and empowerment among these women that they did not want to miss the opportunity. In each and every community we had at least one woman who came with their infant babies to the meetings and into the training. They were unable to find anybody to leave their young children with and they could also not afford any extra money to hire any help.

As advocates and facilitators of women empowerment, we were tasked with the honor of creating an enabling environment for them to also participate and make their lives and those of their little ones better. We therefore brought in extra volunteers who would lend a helping hand to the young mothers with taking care of their babies while they concentrated on the meeting and the learning process.

# Chapter Three – The Trainings

#### Introduction

Capacity Building in terms of knowledge development and skill building was the core of the project. The needs assessment and participatory rural appraisals which determined the proposed interventions for the project revealed that the biggest thing which was lacking in the villages was the knowledge, the skills and the tools. The natural resources are there in abundance but they keep facing degradation from pollution and indiscriminate use; women keep facing discrimination and languishing in high levels of poverty while the youth in the rural villages keep facing unemployment and becoming victims of idle minds. Knowledge and informal education are the one avenue that ensures that these rural people develop the power to actually change their lives for the better because knowledge IS power. It was therefore prudent that we bring this knowledge to these communities and for this phase of the project

The trainings were planned to take place over the course of 10 days. This constituted of both in class sessions where the knowledge was delivered through power point facilitated lectures, group discussions and brainstorming sessions among the project beneficiaries. The knowledge and skills we are building result into actual carrying out of these activities upon completion of the trainings and therefore some days were reserved for field training and testing of the skills, knowledge and tools which have been accorded to the beneficiaries. The trainings consisted of the community members being taken through Natural Resource Co-Management and Leadership, Citizen Science in Wetlands and Water Quality Monitoring, Business Development, Marketing and Book Keeping, Plastics Recycling and Craft Making from Aquatic vegetation and Finally tour guiding and tour operations.

The trainings were guided using well designed training manuals which were informed by the needs of the beneficiaries and the local communities. They were developed with the rural setting and perspective in mind and tailor made to suit the contexts of the areas we were working with. The parameters which were taken into consideration during their development were the levels of education of the beneficiaries, the topics which would be most useful to them, the feasibility and applicability in their rural context and the resources available to them to actualize the activities being developed and which they are being trained on.

### PROJECT BENEFICIARIES' EXPECTATIONS

On the first day of the training, the beneficiaries were asked to mention the expectations which they have for the trainings and for the project and they included:

- Development of activities which will keep the communities engaged
- 2. To gain experience and knowledge
- 3. To protect the environment
- 4. To be able to have the ability to make bags and other things
- 5. Learn how to use water in a proper way
- 6. To make profits in protecting the environment
- 7. To be able to plant trees and make the environment clean
- 8. To be able to create awareness to the other community members
- 9. To respond to human wildlife conflicts
- 10. To protect the wetland so that it can sustain benefits
- 11. To gain knowledge on how to generate income by making crafts
- 12. To report places which are in crisis in the environment

# **Natural Resource Co-Management and Leadership**

The training curriculum which was used during this training included topics such as an introduction to Natural resources which included the definition and classification of natural resources and the meaning of natural resources management. It also described what wetlands are, the state of wetlands in Kenya as well as the Yala wetland, Kusa-Koguta Wetlands and Dunga Wetland. It then further discusses what co management is, the need for co management, the steps which are involved in participating in co management as well as an overview of the advantages and challenges the co management of natural resources structure faces. It also highlights natural resource leadership in Kenya and the legal and policy instruments which could help the local communities better protect their resources as well as benefiting from them. The highlighted legal instruments include those of the resources which are critical the specific wetland villages and their environs and which the communities members use or could potentially draw benefits from. They include forests, water, fish and wildlife.

This comprehensive training curriculum has been designed enable the project beneficiaries to:

- i. Appreciate the need for effective natural resource governance
- ii. Identify areas of leadership for natural resources management
- iii. Appreciate the role of Wetlands for ecosystem services and conservation
- iv. Identify sources of Wetland degradation
- v. Understand the consequences of Wetlands degradation in Kenya
- vi. Understand how to participate in natural resource co-management
- vii. Identify the advantages of co-management, the limitations, challenges and how to overcome such challenges
- viii. Identify Policies, Acts of Parliament/Laws, Regulations, Law Amendments etc. used in management of natural resources in Kenya

The beneficiaries showed good that they had a good awareness of their environment. On the onset of the class, they were first asked to mention the natural resources they have in their environment and they made a list which included wild animals, papyrus reeds, birds, fish, aquatic plants and forests like the now highly degraded Akara hills. In Yala Wetland for instance, there was a mention that there was however no man-made forests in the area, because no one had such big parcels of land to spare. It was however brought to their attention that there are new laws by the government which are highly community friendly and the forest department is able to help them in protection and sustainably deriving benefits from the forests. The same was the case for Dunga and Kusa-Koguta Wetland Villages.

They were also able to come up with a comprehensive list of all the waterways that they have in their community which in Yala Wetland composed of Lakes (Kanyaboli, Victoria, Namboyo,

Sare and Bob), Rivers (Yala and Nzoia), Dams (Urimba, Mwer, Kalenyjwok, Urimba and Udinda), Canals (Kadenge Wiya and Misori), Whiro Stream and Yala Swamp. In Kusa-Koguta the Sondu-Miriu River was the most prominent resource apart from the wetland and the Lake Victoria. There are a couple of dams as well. Dunga also boasted of a couple of small streams. It was brought to their attention that they have rich ecosystems which has a lot of resources and if they get destroyed, then they will be destroying their own lives as well. There is great need to learn the different structures which are tailored to help them in their capacity as local community members take good care of them while also benefiting from them.

One of these structures was Co-management in which they were made aware that in the past the government was fully in charge of these resources, but the communities which lived in proximity to them, raised issues about that arrangement. The government was fond of bringing outsides to their landscapes and ecosystems to manage resources which they understand better because they live with them every day. As a result, the government, the community members and other stakeholders sat together in a forum with the aim of coming up with one collaborative management. The government having to take some of its powers and giving it to the community and stakeholders is what was referred to as co management. They were then taken through the steps for developing a co management structure which included educating the community members, conducting consultations with all the parties involved, cooperation, communication, advisory and finally a partnership of the equals.

The beneficiaries were then able to relate what they were learning with what has been happening in their community and therefore understand what they should do different. They mentioned that they have noticed great limitations with co management within their community in that the government will select the best and most qualified person to take charge from their end, but when it comes to the community, they will always do their selection based on popularity, As such there ends up being a person in charge, who has no idea what they are doing and are only there to serve their personal agendas and the interests of a select few.

There was also the issue of the people in office in some co-management structures such as the Beach Management Units holding hostage those offices and not allowing fair elections to be conducted as it should be. As a result, there is gross under representation of women and youth in said offices thereby not allowing any representation of their cases when it comes o their natural environmental issues. This training also helped equip them with how they can over come such issues like using the power of public voice and public participation to bring out their grievances or forming their own site conservation groups and aligning their interest with co management structures.



Photo 5: Natural Resource Co-Management and Leadership Training in Progress

### Co-Management Issues in Yala Swamp

The beneficiaries were of the idea that co management has contributed greatly to the depletion of fish stock in Lake Kanyaboli. They were sure that in their area, co management cannot work. The reasons which they highlighted were that there was absolutely no equal representation of all their issues. They were stern that they cannot respect a directive which tells them to take care of wild animals and conserve their habitats while at the same time; the same animals are eating into all their produce. They also mentioned that they have some property like big trees which were planted decades ago by their parents and they inherited them but they were not allowed to cut them without permission from the relevant authorities. This did not sit right with some of them

This was clear indication that there needs to be intense awareness creation and capacity building on the issue of co management throughout the community as this will help the people in the selection of leaders who actually had their interests in mind. It will also be critical in building co management structures which took into account the stake that everyone has and tries to create a balance that worked for every stakeholder. By the end of this section of the training, they were well aware of how they could resolve some of these challenges and the best way to develop co management structures to ensure that they do not encounter such problems. They appreciated the fact that if done right, then co management can be the best thing for their community resources.



Photo 6: Natural Resource Co-Management and Leadership Training in Progress

### Lessons Learnt and Way Forward

The project beneficiaries were able to deduce what they need and what could help them in manage their resources better and one of them was a land use plan. If they could have private developers, community, resource users, individuals and the government conduct a participatory demarcation and zonation, then this would help in ensuring sustainable utilization of their natural resources as they also derive benefits from them. They were able to deduce that private developers were the biggest nuisance in the swamp, leaders keen on personal interest rather than community interests and corruption were also major hindrances to heir sustainable development. As such they had a good understanding of what needs to be done and what they will do going forward as they become water and wetland stewards, and strive to take up environmental leadership in their community.

However, being a good environmental leader requires not just having knowledge of the problems and the possible intervening measures which can be taken to resolve them, but also keenly understanding the legal instruments which can actually help in reinforcing these interventions. On that note, the beneficiaries were comprehensively taken through the most relevant bits of the laws and policies for the four major natural resources they have which are the Forest Act, the

Wildlife Act, the Water Act and the Fisheries Act. They learnt the different co management functions which are there for each and the possibilities which can be taken up based on the information and directives contained in the acts. Some of these co management functions included Community Forest Associations, Beach Management Units, County Wildlife Conservation and Compensation Committees, Community Wildlife Associations, Water Resource Users Associations and trust funds like wildlife endowment fund and the water sector trust fund.

### Citizen Science in Wetlands and Water Quality Monitoring

There are many scientists in the world, just as there are conservationists and environmentalists. But one does not have to necessarily have the qualifications which come with all these titles for them contribute to research. The people with all these titles are not many enough to cover everywhere on the planet, but needless to say, there still need to be continuous monitoring and research. When local communities take up the mantle of conducting research within their local environs, they become citizen scientists and with the right training on how to do this, they have the power to contribute significantly to knowledge creation which can yield sustainable solutions to the environmental problems that we face. There are a lot of things which are happening in our environment which if we do not monitor on a regular basis, then the environment can get even more highly degrade than it currently is.

This was the subject of the next training which was accorded to the volunteers. The main points covered were water and wetlands monitoring, indicators of healthy ecosystems and field testing of the monitoring parameters. The beneficiaries were asked what they think were the indicators of a clean and healthy environment in their context and they came up with a comprehensive list which included:

- Clean air
- ♣ Clean water
- Enough food
- ♣ No soil erosion
- Accessible roads
- Minimal diseases
- Intact habitats
- Proper waste disposal
- Proper sanitation facilities



Photo 7: Citizen Science in Environmental Monitoring Training

To gauge their understanding of the threats which are facing their environment; they were also asked to mention the threats that they think are associated with their environment and they also came up with a comprehensive list which included:

- **♣** Burning of papyrus reeds
- Killing of wild animals
- Poor farming across contours
- **♣** Waste disposal in water
- Poor fishing gears and methods
- **♣** Overpopulation leading to encroachment
- ♣ Open defecation resulting into the feaces washing away into water bodies
- **♣** Washing clothes in the lake thereby making it dirty
- Overgrazing
- **♣** Improper use of plastics
- **♣** Noise pollution
- **♣** Farming close to the wetlands

This showed that there are a lot of threats and therefore there was need to keep monitoring the environment and after that, the data collected will be used to develop reports which will help in designing interventions to halt the environmental problems.

The most dominant ecosystems in the areas and the ones which provide the beneficiaries with the most benefits are the water and the wetlands. It was therefore necessary to take them through specific indicators for both as this will inform their activities as citizen scientists going forward. The indicators of healthy wetlands which they were taken through were:

- ♣ birds (the presence of dominant species which they can identify easily by their calls);
- the height and density of papyrus reeds;
- ♣ the presence of wild animals (in the case of Yala Swamp, one like Sitatunga);
- human activities (such as canals, toilets, farming)
- ♣ Water quality monitoring where they looked at parameters such as turbidity (the cleanliness of water) pH (the acidity or alkalinity of water) and pathogens (such as E.coli).

On water quality monitoring, they were taught the different ways in which they can test and/or check if the water is of high or low quality and these include presence of algae, color, pH, odour/smell, depth, dissolved oxygen and pathogens. It is also important to consider the purpose for the water to make conclusions on its quality.

The team of participants was then taken out into the field for a demonstration of testing for water quality in which they used the litmus paper to test for acidity / alkalinity and they also used equipment for testing for presence of E.coli at different sites in the water body. E.coli, which is also known as Escherichia coli, is a bacterium that is found in the intestines of warm blooded animals. It is used as an indicator to detect water which has been contaminated by fecal matter. The bacteria infect humans that come in contact with contaminated water leading to bacteremia, traveler's diarrhea, and other clinical infections such as neonatal meningitis and pneumonia.



Photo 8: Project Beneficiaries Learning how to collect Samples

The monitoring of E.coli helps in the identification of hotspots along the lake and it also supports the purification of these contaminated places. It can also help I the identification of clean places for drinking and swimming. The equipment which they learnt how to use for this testing was the pipette, a petri dish, GPS and easy gel. Therefore, when the beneficiaries continued to conduct the monitoring, the data which they collect can be used to create advocacy messages and platforms around and which can also inform the development of impactful interventions to make their waterways cleaner and safer.



Photo 9: Project Beneficiaries applying samples mixed with easy gel onto a petri dish

# **Business Development, Marketing and Book Keeping**

As earlier noted, most of the participants were not formally employed. Under development in the region leads to there not being a lot of employment opportunities. The few people who had some sought of an employment are the ones who did menial jobs for a few weeks at a time and got paid some little cash. Then they went back to their daily small businesses. Most of them sold fish; others sold vegetables and traded in different household things. They were therefore asked whether they were aware of the businesses which they could start using their own environment and they showed great awareness as they stated businesses such as water vending, mat making, fishing and fish mongering, ecotourism, selling reeds for building, herbal medicine and selling salt licks for cattle.

The project beneficiaries were then taken through important lessons such as making businesses successful, the ins and outs of customer relations, book keeping and resource mobilization. This training was meant to enable the participants:

- ↓ Understand the meaning of Entrepreneurship
- **4** Test their business ideas
- Understand the meaning of markets
- **♣** Recognize their market segments
- ♣ Identify the right markets for their products
- **♣** Grow their markets
- Understand how to relate well with their customers
- Understand how to deduce and fulfill the needs of their clientele
- Grow their clientele

One of the greatest challenges which these rural community face when they want to become entrepreneurs or when they have started their businesses and wish to grow them, is how to get the resources that they need. They need capital for their businesses, they need the technical know-how and they also need knowledge and skills to help them in implementation and scaling. It was therefore prudent for them to be taken through resource mobilization and also open their eyes to some opportunities which they were not aware of that they could tap into. Some of these included:

- Personal Savings
- Loans from family and friends
- **4** Bank loans
- Money Lenders
- **♣** Government funds like the uwezo fund
- Micro finances
- **♣** Group saving and loaning
- **4** Grant donations



Photo 10: Participants during the Business Development Training

In this training, the learning incorporated a lot of participation from the participants in terms of case study analysis, group brainstorming sessions, role plays and presentations from the different groups. This was meant to gauge their understanding of each of the topics which they were taken through and ensure a better grasp by applying the lessons to a makeshift situation.

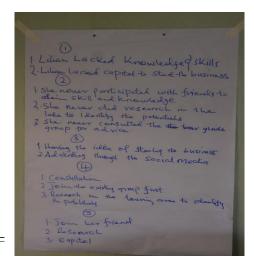


Photo 11: Participants during a Group Discussion

One of the case studies which got them so involved was one of a young girl who had started an ecotourism venture but after a couple of months it failed. Given the story of this woman and how she conducted the business, the participants were asked to sit I groups and analyses the situation well and come up with answers to what she did right, what she did wrong, what she needed so as to get it right, and what they would have done differently. The participants were able to come up with interesting results which they presented to the rest of the classroom. Since this is one of the businesses which they will be facilitated for soon, it was a good learning experience for what they need to do and what they shouldn't do in this business.



Photo 12: Results of Case Analysis



# Plastics recycling and Craft Making from Aquatic vegetation

Plastics, both hard and soft are one of the biggest sources of pollution in our environment, even with the ban on plastic bags in Kenya; there are still places where their effect is still present as there are still people using single use plastic bags. In order to help clean up the environment, the project participants were taken through how they could incorporate the use of waste plastics in making simple yet highly unique crafts.



Photo 13: Participants using waste plastic paper to wrap a wine holder frame

The craft business is one which has been tried a number of times by the local communities which live in close proximity to wetlands and water bodies which can easily supply them with papyrus reeds and water hyacinth. The only issue they have had and the reason as to why the businesses do not take off is that most of them only know how to make simple traditional mats and that is what they sell in their local markets. During the needs assessment, they mentioned that they would appreciate being taught how to make other things and creating of a better and bigger market for them. These were both within our range and hence some of the crafts which they were taught how to make include:

#### Wine Holders

The frame which is used to make these, is made from recycled metals which are collected and welded into the desired frame, the frame is the wrapped with waste plastic paper to prevent it from rusting. After that the weaving is done using Grade B or C Water Hyacinth Rope. The clear Vanish is applied at the end to give it a good finish.



Photo 14: A participant weaving a wine holder

#### Straws and Serviette Holders

This is made from bamboo and water hyacinth, one bamboo stich is cut into smaller parts and shaped well. It is then made smooth using a sand paper and then water hyacinth rope is attached all round it using wood glue. Clear vanish is then applied to give it a good finish.



Photo 15: Project Participants Making a Straw and Serviette Holder

# Gift Bags

These were made using water hyacinth paper that was made from recycled photocopy paper and crushed water hyacinth. The bags can be made of any desired size and if the paper is made strong enough, it can carry even heavy loads. This particular product can be a good and green alternative to plastic paper following the ban on single use plastics in Kenya.



Photo 16: Participants Making Gift Bags

### Table Mats



Photo 17: Project Beneficiaries Learning to Make a Table Mat

The other crafts which the project participants were given a brief overview on how they are made and will learn how to practically make soon include:

- **♣** Cards
- **♣** Table Mats
- ♣ Pen Holders
- **4** Trays
- **4** Earrings
- Coffee Ottomans
- **♣** Saving Box
- ♣ Book Covers

### **Tour guiding and Tour Operations**

The Lake Victoria region is endowed with very rich biodiversity which has been greatly overlooked when it comes to the tourism sector in Kenya. This is mainly attributed to the fact that it has not popularized and marketed well. There are highly rich cultures and attractions which would bring great pleasure to travelers. The few people who are engaged in tour guiding and providing tour services that are based locally are unfortunately 90% men and in rural villages such as the Yala Wetland and most rampantly in Dunga Wetland community they are all men.

As such the participants, who are majorly women, were taken through the tours, travel and tour guiding industry and they covered topics such as the meaning of ecotourism and the important concepts in sustainable tourism, what is meant by tourism products, the types which exist, what makes a good tourism product and the development of commercially viable tourism products; development of tour packages; marketing of ecotourism products and finally the golden principles of good tour guiding.

The participants were able to give a list of the ecotourism products which they could sell from their small villages and in Yala Wetland they included the Lake Kanyaboli and water tourism, the Lake Kanyaboli National Reserve, wild animals like Hippos and the Sitatunga antelope among others, the massive Yala Swamp, their handmade crafts, the beautiful Lake Kanyaboli resort, Papyrus endemic bird species like the Papyrus Gonolek and Papyrus canary among others, unique fish species which are found in the swamp like cichlids and hypocromines and their beautiful culture, folklores, lifestyle (like grinding cereals with their hands) and traditional dances.

In Dunga Wetland they included Hippo Watching Adventures, Sport Fishing, Kayaking on the Lake, Bird Watching, Cage Fish Farming Learning, Boat Riding, Enjoying the beautiful and scenic view of the wetland from the exquisite board walk, traditional dances and folklore, wild animals on various national parks like Impala, Ruma, Kakamega Forest and Ndere Island; Camping at Dunga Hill Camp among others

They were then taken through a practical exercise which saw some of them act out the parts of tour guides; especially the women and the rest were their tourists. They took their teams round their wetland village and showed them their attractions in practice of being terrific women in tour guiding. This training was designed and conducted to enable the students:

- I. Understand and be able to use the key concepts of ecotourism
- II. Recognize why sustainable tourism is important
- III. Develop ecotourism products that are there in the Lake Victoria Basin
- IV. Differentiate good products from bad ones

- V. Come up with new unknown ecotourism products in the Lake Victoria Basin
- VI. Develop exquisite ecotourism packages in the Lake Victoria Basin
- VII. Price ecotourism packages well
- VIII. Understand the process involved in the development of marketable tourism packages
- IX. Develop effective marking plans for their ecotourism ventures
- X. Market their products well
- XI. Market and sell their packages well
- XII. Understand the meaning and importance of professional tour guiding
- XIII. Guide visitors and tourists professionally



Photo 18: A participant Practicing Tour Guiding



Photo 19: Tour Guiding Field Testing

#### FACILITATION OF NATURE BASED ENTERPRISES

Upon training the women and giving them the new skills and knowledge, it was pertinent for us to figure out a way to actually figure out a way to turn the skills, knowledge and tools that they had into practice. Some of these project beneficiaries had been trained a number of times in the past on various things. This was made clear during the training needs assessments and the initial survey of the communities. They however never get the chance to put them into practice especially since the resources to do that are normally not at their disposal or not. We therefore decided to remove this obstacle for them and ensure that they have access to resources and technical support from Ecofinder Kenya even past project funding.

# **Crafts Enterprise**

The knowledge and crafting skills that they learnt we turned them into enterprises by providing them with materials and tools in bulk to each community which they can use as capital resources to set up a group business. For this type of business, it was also brought to our attention that it is normally not easy to get a market for them and that is why most of the women have not opted for it in the past. This is what informed our selection of things to include in their crafts portfolio. We also set up a point of sale, a craft shop, for the women at the Ecofinder Kenya Eco Centre which is located at Dunga Beach, Kisumu. The Craft Shop is used to display all the crafts that they make and also allow for a one on one interaction with their clients to get to understand their needs better. They also have room to custom make for client's whatever items they need so as to ensure that they take care of all their client needs.



Photo 20: The Craft Shop at the Ecofinder Kenya Eco Centre

Marketing was also a very essential component of the business as it was also critical for the project to ensure that these initiatives become sustainable past project funding. The best way to ensure this was to open up market opportunities for the products made by the project beneficiaries. We facilitated this through developing flyers and teaching them strategic places that they should target in the distribution of the flyers which contain their products. We also set up an online page for their products on the online platform (Website) that we created which will serve as a marketing point for a start and later develop into an actual point of sale as well.



Photo 21: Crafts Flyer

# **Eco Cultural Tourism Enterprise**

As tourism was also identified as one of the nature based enterprises which had the potential to do well in the three wetland villages especially capitalizing on the eco cultural aesthetics of the region, we assisted the project beneficiaries to set this up through creating an online portal for them (An Eco cultural tourism website) which they are to use as a point of marketing and sale of packages for the tourism products they currently have and the ones they develop in future using the skills which they obtained. We also took them on bench marking trips to show them how best tourism works and ensured they met with a couple of destination and accommodation sites just to establish a couple of contacts going forward. As a means of marketing, apart from social media pages, we also made for them brochures and flyers which they distributed and will continue to strategically distribute to attract local clientele and international ones from hotels and such like places.



Photo 22: Eco Cultural Tourism Flyer

#### CLEAN UPS, RESTORATION AND BEHAVIOUR CHANGE EDUCATION

Keeping the Environment clean is one of the mandates of Ecofinder Kenya and one of the goals of the CFLI – Ecofinder Kenya Project. We are teaching the project beneficiaries to use the resources they have at their disposal and make their lives better, teaching them to take up leadership positions for their natural environment and now, how to keep it clean, rehabilitate and restore it. We therefore rallied community members and project beneficiaries, including school going children to partake in a clean up and restoration activity for their wetlands. In these activities, the main focus was on the essence of waste prevention and recycling which was to later inform behavior change education



Photo 23: Beach Clean Up

After the clean up, the community members were then taken through lessons on behavior change education in plastics pollution, Here they were taught the essence of recycling and how they can be involved in recycling at their own level and in their own everyday lives. The culminating behavior change was to aid in reducing pollution around their water ways. As a symbol for

plastics and waste recycling, they were involved in stuffing and construction of earth benches in the wetland communities.



Photo 24: An Earth Bench

#### **ADVOCACY**

As a means of educating the public on the project's activities and ensuring we had support for the women and their endeavors, we developed a couple of advocacy strategies including community education in the villages where we worked at different junctures of the project. We also highlighted the project activities on social media through our pages on facebook (Ecofinder Kenya and Kenya Lake Victoria Waterkeeper) which were widely shared by the public and project staff. We also highlighted the project activities, process and outcomes on our blog site (blog.ecofinderkenya.org) which has a rich following. In addition to this we also made IEC materials like banners for the project. Through all these advocacy efforts, we estimate that we were able to reach and educate upto 3000 people.



Photo 25: The Project Banner

#### **Achievements**

### The Project Achieved the Following:

- 1. Recruit 72 project beneficiaries
- 2. Improve the knowledge on 72 women and youth on natural resources co management and Leadership
- 3. Made Citizen Scientists in Environmental Monitoring (Water and Wetlands) of 72 women
- 4. Successfully taught 72 women how to make beautiful crafts
- 5. Made our first batch of water hyacinth craft products
- 6. Secured orders for different custom-made crafts like laundry baskets and baby beds
- 7. Improved the knowledge and understanding of 72 Women and Youth on the key concepts of entrepreneurship and business development and how to make successful businesses.
- 8. Developed 5 Comprehensive Training Curriculums tailored to the understanding and context of the rural villages.
- 9. Heightened the interests of women to get into the sustainable tourism industry
- 10. Built the skills of 72 women and youth in tour guiding
- 11. Established a comprehensive online platform
- 12. Established six nature-based enterprises among the project beneficiaries across three wetland villages of the Winam Gulf of Lake Victoria, Kenya

#### Challenges Encountered

- 1. Over expectation of the participants in terms of monetary gain but this was taken care of by clearly stating the benefits of the project
- 2. The rainy season destructing some outdoor training
- 3. Heavy rains resulting into constraints in acquiring papyrus reeds therefore making products from these was moved to a later date during the second day of the crafts training
- 4. Women coming with children during the training but we quickly found proper solutions to ensure that they were also included and their children was also well cared for.

### **Next Steps**

- 1. Establishment of revolving funds and self-help funding systems like table banking among the women to add to their resources and establish more businesses
- 2. Further marketing, making and selling of eco cultural products from the women for financial sustainability

Contribution to environmental sustainability through continuous environmental
monitoring and becoming more active and involved in environmental co management and leadership
Ecofinder Kenya will continue offering technical backstopping and a safe continuous learning and development platform for the project beneficiaries through tapping into our
large pool of volunteers.