

**SCHOOLS AND COMMUNITY INVOLVEMENT IN DUNGA WETLAND
CONSERVATION**

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1.0 Acknowledgments

The Rufford Foundation for Nature Conservation has supported this project since its start in 2005. The project has enabled the beginning of a process for dunga swamp conservation through enabling the initiation of complementary projects some of which are development focused that will ensure sustainable Dunga swamp conservation. I therefore feel indebted to the Rufford Foundation.

I would also like to express gratitude to **Lake Victoria Sunset Birders (LVSBS)** for their continued support to all efforts for Lake Victoria wetlands conservation. I specifically want to thank them particularly for their commitment towards this project and their unrelenting follow ups on both community and school programs established under this project. Special thanks to **Moses Ogutu Owino**, my assistant project manager for his assistance through out the project period. I'm also grateful to **Tim strong** and **Ruth** both volunteers with LVSBS from the United Kingdom for their selflessly supporting this project through their voluntary school and community outreach support.

Nature Kenya has been supportive through out this project. Many cover letters used for permissions in schools and other government institutions were granted because of their support. Special thanks to **Jacob Machekele**, the Nature Kenya conservation program officer for guidance and facilitation on proper project administration. Thanks also to the **conservation program manager Mr. Enock Kanyanya** for his support in offering valuable advice.

I would also like to thank **Mr. Wilson Busienei** the **Kisumu district Environment officer** for his very valuable input like creation of new valuable partnerships which were very important during the running of the project.

Thanks to the **Wildlife Clubs of Kenya** western region particularly the western region education officer **Mr. Edward Mwendwa** for their continued support in mainly the school outreach program.

Finally to all the major project participants who include the **head teachers** of project schools, the **patrons** of involved environmental school clubs, the pupils and the all Dunga community groups involved in conservation efforts of the wetland. I'm extremely humbled by their time and support given to this valuable course.

And to all that I'm not able to specifically mention in this report who gave their input in this project. We appreciate your valuable support.

2.0 Abstract

The report is about the project carried out in Dunga swamp Important Biodiversity area located at (01° 10'S, 34° 47'E) in Kenya, East Africa.

The goal of this project was to start a sustainable process for Dunga swamp conservation through involving the schools and communities around dunga wetland in addressing the socio-economic problems that face the swamp.

The project activities included capacity building for 15 LVSB members on project management skills for effective project management, school projects and public awareness creation activities.

A number of lessons have been learnt by the project team throughout the life of this project. We plan to use these lessons in improving the implementation of future projects in Dunga swamp and also in replicating the project in other Lake Victoria wetlands. The project results have also prompted us to make recommendations on what should be done in future.

3.0 Introduction

The project, School and Community Involvement in Dunga Swamp Conservation had the broad goal of starting a sustainable process for Dunga swamp conservation through involving the schools and communities around Dunga wetland in addressing the mentioned problems.

The implementation of this project began in September 2006. The activities of the project were finalized in September 2007. The details of the project are explained below.

3.1 Project specific objectives;

These include;

- i. To enhance awareness on the importance of Dunga swamp and educate the community on sustainable utilization and conservation of the wetland.
- ii. To spearhead an implementation process of the issues addressed during the awareness creation in schools through involving the respective schools at all implementation stages.
- iii. Capacity building for LVSB members through training in project management and public relations in preparedness to current and future challenges in community mobilization.

3.2 Project activities

To achieve the project's broad goal, the following activities were implemented:

3.3 Capacity building for LVSB members

15 LVSB members were trained at the beginning of the project to ensure efficient project management. The training was facilitated by nature Kenya conservation officer. The five day training focused on the following areas;

- Team building among project members
- Financial management and accountability
- Project planning and management
- Division of roles and delegation of work among project staff

- Project monitoring and evaluation

The project coordinator also underwent special short term training on human resource management at the Kenya Institute of Management which was entirely meant to assist in efficient and effective management of LVSBS human resource in order to maximize on the available human resources for achievement of not only the project goals but the entire organizational goals for posterity.

3.4 School programs

A total of **four** schools were involved in this project. These included st. **Vitalis Nanga**, **st. Marks Nyabera**, **Kasagam** and **Joel omino primary** schools.

i. Workshops and meetings for environmental club patrons

A total of **three** workshops and **eight** meetings have been held with the eight project school patrons. These were meant to design the approaches to every planned activity in the project. During these meetings, the following things were done:

- Formation of the school patrons committee
- Development of terms of reference for the school patrons committee.
- Development of school projects calendar of activities.
- Evaluation of previous school activities in the project.
- Identification of needs in the coming phases of the project.

ii. Activities for school environmental clubs

This involved the following:

Development of an education center

This is a demonstration unit for the conservation of birds and the general environment.

This involves a demonstration of bird conservation through construction of bird feeding and watering equipment, tree and forest conservation through tree identification, labeling and uses of various trees.

- The school pupils' visits to the center were organized and done to provide a learning environment for pupils on how they could promote the bird and environmental conservation in their respective schools.

Visits to the Important Bird Area (Dunga)

This involved a one day visit to Dunga swamp by each of the four project schools. A total of 104 pupils and 8 teachers were involved in the visits with six LVSBS facilitators. This was mainly designed to assist the pupils in understanding environmental problems facing the site and enable them think of possible solution and preventive measures in their schools.

Schools debate

One debate was organized in June 2007 at Wildlife clubs center. This brought together **fifteen pupils** and **two patrons** from each of the **four project schools** to discuss solutions to some of the problems identified during the visit to Dunga swamp.

Implementation of conservation projects in schools

After the school debates, we and the schools involved embarked on implementation of the solutions proposed during the debate. The implementation was done by the school pupils with the guidance of LVSBS project team. The following activities were thus implemented by the four schools:

- Tree nursery development
- Construction of more bird feeding tables
- Development of waste management units and programmes in two schools.

Schools exchange program

Each of the project schools had an opportunity of visiting **three** of the schools involved in the program. This was mainly designed to aid in interaction between the pupils and promote sharing of ideas among the pupils. **Four exchange** programs were carried out during the project and **120 pupils** and **eight teachers** were involved.

3.5 Community programme

This involved starting and implementing programs that enhance community involvement in environmental conservation more so, Dunga wetland which is an important bird area. The community outreach was mainly done via community meetings such as chief barazas, media (Osienala Radio), **Sports** (football and boat races), **Drama and puppetry, T - shirts**. Awareness on important issues related to the conservation of the wetland was disseminated in such avenues. This was geared towards buying the community's involvement in the conservation of the same. Mobile education units were also used to extend conservation education to the community. Soccer tournaments were also held both in Dunga and Nyamasaria areas; these were used as social forums for buying the community's participation in the conservation. The local churches such as Kisumu East S.D.A., Nyamasaria Coptic church and Baptist churches were also reached out in the same exercise. The activities under this program included;

- Awareness creation about the importance of environmental conservation to the communities. This was done through; churches, the community administration barazas, public gatherings and market places. This was done as follows:
 - i. **Talks**

These involved lectures to church gatherings and community barazas about the importance of their involvement in conserving their natural resource. A total of eight talks were done.
 - ii. **Football tournament**

This is currently used to mobilize the community and involve them in creating awareness and suggesting sustainable alternatives for natural resource conservation as opposed to destructive uses. The tournament involved eight men teams and eight female teams. The winners were awarded a trophy and two footballs each.
 - iii. **Drama and puppetry**

This is done through skits and plays to express in a comical way what the community does wrongly which threatens birds and other wetland animals and suggesting better ways of wetland conservation by the community. Eight drama and puppetry sessions were held during the awareness campaigns.

iv. T-shirts

A total of **330 T-shirts** were printed and distributed to the community during the football tournaments. These were used as walking posters to encourage more community members to participate in wetland conservation.

The **120 T-shirts** were also produced for the world wetland day for mobilizing the public during the awareness creation campaigns.

The table below summarizes the community awareness during the project.

ACTIVITY	PARAMETERS
CHURCH OUTREACHES	FOUR
CHIEF BARAZAS ATTENDANCE	FOUR
MARKET OUTREACHES	TWO
VILLAGE ENVIRONMENT COMMITTEE MEETINGS	SIX
FOOTBALL MATCHES	SIX
T- SHIRTS (“walking posters”)	420 T-shirts printed & distributed to the community.
Radio presentations	6 presentations aired on radio lake Victoria since the start of project

v. The world wetland day

This was an international day celebration done on every 2nd of February annually. This was used as a catchment of a very wide area and thus was attended by most of the stakeholders who played a major role in the dissemination of conservation education as well as psyching up the conservation efforts by the L.V.S.B. group in their different projects. A clean up was also done to introduce an environment friendly attitude to the community.

The table below is a summary of the impacts of the event.

ACTIVITY	PARAMETERS
MOBILIZATION	Twenty two community groups and stakeholders attended the event including guests from National Environment Management Authority (NEMA), The District Fisheries Department, the Kenya Wildlife Service, Kisumu city Council, Kisumu Science Teachers’ Otter Conservation Group, lake Victoria water services board, lake Victoria Environment Management Program among many others.
Clean-up at the beach	100 bags of garbage collected at Dunga beach by participants
Boat race	Five boats each with seven rowers were involved in the race. Three boats were declared winners of the event. The guest of honour from the fisheries department flagged off the event.
Drama and skits	Eco-finder drama group drew many community people to the event through skits relevant to Dunga wetland and Lake Victoria conservation.
Speeches	Speeches were mainly from guests and other community members

4.0 Project Impacts

- I. Reduction in papyrus burning and cutting from an estimated area of **5 patches per sq km to 1 patch per sq km (LVSB site survey data reports 2003 and January 2007)** which is an indication of site improvement due to the vigorous awareness campaigns done through the community barazas, churches, market places, international events like the world wetland day and the world migratory birds day.
- II. All the four project schools have had tree nurseries established in each of the schools with each school raising an average of 1000 seedlings of both trees and vegetables.
- III. A total of seven new bird feeding tables have been set up in three of the project schools.
- IV. The project schools have taken their own initiative to continue with the programs started by this project like visiting some of the natural resources around the region e.g. Joel Omino school has visited Dunga swamp and Nakuru national park to learn more about natural resource conservation while Nanga school has organized one visit to Kakamega forest.
- V. The patrons' terms of reference have been developed and are being used as guideline to manage project school programs.
- VI. Three schools outside the project schools have become registered members of the wildlife clubs of Kenya which has been influenced by the activities of the program. These include, Nyamasaria primary, Kisumu day secondary and Pandpieri primary schools.
- VII. Number of women joining the established village environment committees has increased from the previous forty two to 120 which has been an outcome of the vigorous awareness campaigns through football tournaments and the drama and puppetry.
- VIII. From the impacts of the program, one member of LVSB, the project coordinator was invited by Nature Kenya to participate in the British bird fair between 17th to 19th August 2007 which was held in Egleton Nature Reserve, Rutland Water, Oakham, Rutland, England. This is aimed at aiding in facilitating a process for sustainable dunga swamp conservation in the near future.
- IX. From the initial training of 15 members of LVSB on relevant issues to project management, the skills have also been replicated in managing other projects. This has enabled the group to meet most of the project goals in sufficient time.
- X. More than the expected number of teachers and pupils from project schools were involved in the project.
- XI. We have also managed to create new partnerships with similar interest organizations like the Lake Victoria South Water Services Board and old partnerships have also been strengthened which is an achievement for our work.
- XII. LVSB membership has increased from 44 to the current 55 due to increased work load. Many volunteers from the community have joined the group because of the impact of the work they are doing in the wetland.

5.0 Constraints

The challenges encountered during the project include;

School program

- I. Difficulties by some of the project participants like school patrons and groups honoring time and pledges. This brought about delays which inconvenienced most of the program.

- II. Inadequate finances by some of the project schools made it difficult for them to share the cost of some of the activities thus forcing us to put them in the project budget which was inconveniencing at times.
- III. Difficulty in transporting equipment like television and generator to some of the schools like Kasagam and St. Marks primary schools. Due their interior location, it required a private means of transport to avoid so many inconveniences to both the schools and the project implementers.

Community program

- I. Lack of commitment by some members of community groups to assist in community mobilization caused unnecessary delays to the program.
- II. Difficulty in handling the excess numbers of community members who wanted to be involved in the football tournament. A bigger number than had been expected turned up to register as players yet the project had only planned for four teams and eight teams turned up.

During the entire period of the project, new ideas were realized from the challenges encountered. These lessons include;

- That to make every participant appreciate and take their role seriously to avoid delays, it is important to work with those who are ready at the agreed time without waiting for those who come late. This was realized towards the end of the project after we tried the approach and we had involved groups going an extra mile to cover for the absent groups.
- We also realized the importance of partnerships with other stakeholders which included schools and other organizations because when we lucked in some areas like transport, equipment and permissions to access some areas, we got the support e.g. we got transport assistance from Kisumu day secondary school, Kenya Wildlife Service, National Environment Management Authority, Nature Kenya and the City Council of Kisumu.
- It is important to encourage and work with partner groups in such projects to aid them in finding sustainable sources of income so that they can also support projects similar to this in future.

6.0 Lessons learnt

- Addressing poverty stimulates bio diversity conservation. Future conservation efforts should try to focus on poverty alleviation projects through development of alternative resource use programs.
- It is important to involve stake holders and improve partnerships.
- Team work for staff members is very crucial.

7.0 Recommendations

- I. There is need to now focus conservation efforts for Dunga in promoting alternative income sources like tourism as opposed to just awareness creation because at least many people have been made aware of the importance of dunga swamp. We therefore propose that more efforts be geared towards promoting tourism in the area for sustainable development of the people of Dunga.
- II. We also recommend training in advocacy for working groups in dunga area so that lobbying for the wetland conservation laws is enhanced. Currently there is no clear wetland policy and if we

can assist in having the community declare Dunga a conservation area, the threats will be reduced.

- III. There is need to establish a network for communication amongst not only schools around Dunga swamp but the entire Lake Victoria region so that a medium for sharing information on environmental issues amongst schools is developed and sustained.
- IV. We also recommend that corporate organizations be brought into the project as partners so that the conservation of Lake Victoria wetlands can be addressed locally, nationally and internationally through their support.

8.0 Future plans

- LVSB is currently developing a strategy for marketing Dunga swamp for eco- tourism especially bird tourism. We plan to focus on the route, partners, transport, marketing, and network as we come up with a plan to complement the already existing Nyanza sustainable tourism development plan.
- There are also plans to start involving local corporate partners in Dunga swamp conservation to ease dependence on external donor support. We therefore plan to organize a forum that will bring some corporate organizations on board to lobby for dunga swamp conservation.
- We also plan to empower the communities around Lake Victoria wetlands so that they can strongly start advocating for the wetlands formal protection. This we plan to do through capacity building for the leaders of lead conservation groups in the areas.

9.0 Conclusion

As already mentioned, this project main aim was to involve the schools and community members living around Dunga in conserving the wetland by enabling them to understand the root of the problem and come up with their own possible solutions. Through the project, we have managed to reach an estimated **160 school** pupils directly and at least **500 pupils** in each of the four project schools indirectly. We have also managed to reach at least **fifteen teachers** from each of the four schools with the environmental conservation message.

We have also managed to reach more than a total population of **2000 community members** through the already established 2 **Village Environment Committees** and the many activities organized under this project which include the football tournament, the church and market outreaches and the chief and other community meetings.

We therefore are happy to note that the immediate objectives of this project have successfully been met and the prime goal which is to see to it that Dunga swamp is conserved has partially been achieved. The balance of the grant which is **£ 153.15** will be carried onto the next phase of the project which involves activities recommended in this report.

Below is the project summary table;

MONTH & YEAR	ACTIVITIES PLANNED	ACTIVITIES DONE/INDICATORS	MEANS OF VERIFICATION	SCORE
OCTOBER 2006	• 1 training for 15	• 5 day LVSB training	• certificates issued	1

	<p>LVSB members</p> <ul style="list-style-type: none"> • Training for project coordinator • 1 community meeting • 1 Media outreach. 	<p>w/shop</p> <ul style="list-style-type: none"> • training for project coordination • 1 school patrons meeting • 1 community meeting • 1 media outreach 	<ul style="list-style-type: none"> • receipts available • Minutes available • event pictures available • records available at Radio Lake Victoria (RLV). 	
NOVEMBER 2006	<ul style="list-style-type: none"> • 2 patrons meeting • 1 community meeting • 4 community outreach • 1 media outreach 	<ul style="list-style-type: none"> • 3 patrons planning w/shops • 1 community meeting • 4 community outreaches • 1 media outreach 	<ul style="list-style-type: none"> • Receipts and minutes available • Community meeting meetings available • Outreach pictures available with dates • Records available at RLV 	2
DECEMBER 2006	<ul style="list-style-type: none"> • 1 community meetings • Media outreach • 1 community outreach • Quarterly report 	<ul style="list-style-type: none"> • 2 community outreaches • Media outreach (RLV) • Quarterly report submitted 	<ul style="list-style-type: none"> • Picture reports in LVSB office • Records available at RLV • Copy available at Rufford & LVSB office 	2
JANUARY 2007	<ul style="list-style-type: none"> • Planning w/shops for patrons • School demonstrations & activities • Community outreach 	<ul style="list-style-type: none"> • 2 planning w/shops • Demonstrations on waste management, tree nursery management and bird conservation for 4 schools. • Outreach to 4 churches and 1 market 	<ul style="list-style-type: none"> • LVSB records and patrons diaries • Demonstration units available at WCK education centre • Picture reports available • Receipts 	2
FEBRUARY 2007	<ul style="list-style-type: none"> • Patrons planning meeting & evaluation workshop • 1 community meeting • Working with the media • World wetland 	<ul style="list-style-type: none"> • 1 patrons meeting at WCK hall.6 patrons attended. • 4 community meetings held at Oboch SDA, Nyamasaria catholic and 2 chief camps • 1 awareness 	<ul style="list-style-type: none"> • Attendance records available • Pictures and visitors books evidence • Records at RLV • Picture reports and receipts • Copy of report in LVSB and RSG file 	1

	<ul style="list-style-type: none"> day Quarterly report 	<ul style="list-style-type: none"> through radio Lake Victoria. World wetland day celebrations at Dunga market centre Quarterly report prepared and submitted to RSG 		
MARCH 2007	<ul style="list-style-type: none"> School training Site visits with schools Debate and essays Working with radio station 	<ul style="list-style-type: none"> 4 schools involved in trainings at the WCK resource centre 4 schools visited Dunga swamp for outdoor learning. 1 debating session held at WCK hall 4 schools involved in essay writing and best pupils and patrons awarded. 	<ul style="list-style-type: none"> Reports, pictures and receipts at LVSB office Copies of essays at WCK office 	3
APRIL 2007	<ul style="list-style-type: none"> Patrons planning meeting & evaluation workshop Project activities in schools Community outreaches Awareness in the radio 	<ul style="list-style-type: none"> 1 patrons' meeting held. 4 schools set up tree nurseries and bird feeding tables 2 community outreaches at Dunga and chief's camp 1 Radio awareness program 	<ul style="list-style-type: none"> Tree nurseries existing in Nanga, Joel Omino, Kasagam and St. Marks primary schools. Receipts available at LVSB office Records at chief and RLV offices 	2
MAY 2007	<ul style="list-style-type: none"> School trainings Site visits Debates and essays Internal evaluation 	<ul style="list-style-type: none"> School visits at WCK education centre 4 schools visited hippo point 4 schools participated in the essays 	<ul style="list-style-type: none"> Receipts, pictures and records at LVSB Copies of essays available at LVSB office 	2
JUNE 2007	<ul style="list-style-type: none"> School project activities School exchange visits 	<ul style="list-style-type: none"> 4 schools involved in implementation of projects in 	<ul style="list-style-type: none"> Projects existing in school compounds Receipts and records available 	2

		<p>schools i.e. tree nurseries, tree planting, and bird feeding tables set up</p> <ul style="list-style-type: none"> • 4 schools involved in a 2 day exchange program for schools 	<ul style="list-style-type: none"> • Pictures available 	
JULY 2007	<ul style="list-style-type: none"> • Patrons planning meeting & evaluation workshop • Assessment of school projects • Working with the media. 	<ul style="list-style-type: none"> • 1 patrons' meeting • Projects in schools assessed • Radio publicity at RLV. 	<ul style="list-style-type: none"> • Pictures and receipts available • Records at RLV 	3
AUGUST 2007	<ul style="list-style-type: none"> • Publicity with the media • Quarterly report • Internal evaluation 	<ul style="list-style-type: none"> • Quarterly report submitted • Internal evaluation done 	<ul style="list-style-type: none"> • Reports available at RSG and LVSB offices • Receipts available in LVSB records 	2
SEPTEMBER 2007	<ul style="list-style-type: none"> • Final report 	<ul style="list-style-type: none"> • Radio awareness done through RLV • Final report submitted 	<ul style="list-style-type: none"> • Records at RLV • Copies available in hard and soft copies at LVSB and a soft copy sent to Rufford Small Grants offices 	3

SCORE/ INDEX TABLE

1. EXCELLENT
2. GOOD
3. FAIR
4. POOR

10.0 APPENDIX 1



Figure 1. PUPILS OF JOEL OMINO SCHOOL WORKING ON THE SCHOOL TREE AND VEGETABLE NURSERY SET UP DURING THE PROJECT.



Figure 2. THE JOEL OMINO ENVIRONMENT CLUB PATRON MR. KABUTO HAMISI SUPERVISING THE WORK ON THE NURSERY.



Figure 3. ENVIRONMENT CLUB PUPILS DURING A LEARNING EXCHANGE PROGRAM.



Figure 4. A TEAM OF VOLUNTEERS FROM THE CHANGING WORLD WITH LVSb MEMBERS DURING AN ACTIVITY WITH KASAGAM PRIMARY SCHOOL PUPILS.

11.0 APPENDIX II

FINANCIAL SUMMARY REPORT

ITEM	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	TOTAL
EMAIL/FAX	12.05	2.52	1.17	13.98	5.54	3.11	4.06	3.20	2.12	1.73	0.69	0.42	50.59
AIRTIME	14.96	51.89	45.67	29.13	29.13	31.10	17.72	18.11	21.65	5.12	2.36	1.57	268.43
TRANSPORT	16.50	5.67	57.60	25.35	151.69	28.94	3.90	11.89	131.65	0.98	0.20	0.94	435.31
MEALS	236.66	77.80	61.38	6.85	41.78	12.48	5.09	10.59	6.06	0.39	1.42	0.55	461.06
REPORT	11.81	15.75	15.75	7.87	12.60		15.75	5.16	11.81	19.69		19.69	135.87
STATIONARY	40.50	16.33	12.60		20.74	3.38				17.32			110.87
MISCELENIIOUS	938.60	181.16	483.87	396.72	380.78	433.18	342.80	83.63	67.57	42.54	25.98	7.87	3384.72
TOTAL	1271.07	351.12	678.04	479.92	642.26	512.19	389.31	132.58	240.87	87.77	30.65	31.05	4846.85
TOTAL GRANT													5000
BALANCE													153.15