

## **ECOFINDER KENYA PROGRESS REPORT FOR YALA WETLAND 2007-2009**

### **Project Title:**

Community Based Biodiversity Monitoring and Conservation for Yala Wetland,  
Kenya

### **Submitted to:**



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## INTRODUCTION

This progress report is the product of “**Community Based Biodiversity Monitoring and Conservation for Yala Wetland, Kenya**” project generously funded by Rufford Small Grants Foundation and implemented by Ecofinder Kenya which is a membership, grassroots and volunteers’ based organization working towards the conservation of Lake Victoria wetlands through local partnerships.

Yala wetland complex, which is the largest papyrus wetland in Kenya, is known for its specialists and endemic birds described as **birds paradise**, rare semi aquatic antelope, the Sitatunga (*Tragelaphus spekei*), Vervet monkey (*Cercopithecus aethiopicus*), Hippopotamus (*Hippopotamus amphibius*), African python (*Python sebae*), Spotted-necked Otter (*Lutra maculicollis*) and satellite lakes; Kanyaboli, Sare and Namboyo, serving as repository or living museum of endemic fish species that long disappeared in Lake Victoria itself such as non-cichlids, cichlids and threatened and endemic *Oreochromis esculentus* and *Oreochromis variabilis*. The papyrus specialists’ birds include;

- i. Papyrus Yellow Warbler-*Chloroptera gracilinostriis*
- ii. Papyrus Gonolek-*Laniarius mufumbiri*
- iii. White Winged Warbler-*Bradypterus carpalis*
- iv. Papyrus Canary- *Serinus koliensis*
- v. Caruthers’s Cisticola-*Cisticola carruthersi*
- vi. Northern-brown Throated Weaver-*ploceus castanops*

Birdlife International lists Papyrus Yellow Warbler and Papyrus Gonolek as globally threatened bird species, which require urgent conservation action (Birdlife International, IBAs Status Reports, 2004).

The riparian community, unique birds and other flora and fauna rely on these wetland for survival. Thus imperative in the provision of ecosystem goods and services crucial for wetlands and Lake Victoria biodiversity and socio-economic life of riparian villages. However, these ecosystem goods and services are under anthropogenic threats such as papyrus clearing as epitomized by wetland reclamation or unsustainable agriculture/cultivation and livestock grazing, over harvesting of papyrus for crafts and thatching, settlement, burning, sand harvesting, pollution, eutrophication, siltation, invasive species infestation, poaching of Sitatunga and persecution of hippos and otters-**leading to high incidences of human-wildlife conflicts involving Hippos, Otters, Sitatunga and Birds**. These have resulted to widespread externalities in the Lake and its outflow. These threaten its existence and linked ecosystem services key to biodiversity conservation and grassroots livelihoods security. Moreover, culminated into prevailing food insecurity and general poverty in the area and consequent unsustainable livelihoods or land uses. The scenario is exacerbated by retrogressive peoples’ behaviour, attitudes, ignorance and fewer case studies to learn from.

This project was to enable conservation of Yala wetland through grassroots mobilisation and partnerships to deliver on habitat survey on the current ecosystem status in the face of ongoing threats, establish consistent grassroots detailed monitoring scheme for the wetland, habitat restoration, showcase nature-based enterprises to alleviate human pressure from the wetland, training of site conservation group and conservation education and public awareness for attitudinal and behaviour change for wetland conservation. The project mandate is captured in its goal and objectives:

### **Project Aim**

To facilitate grassroots-based detailed monitoring and conservation of Yala Wetland.

### **Specific project objectives**

- a. To undertake basic diagnostic habitat survey for Yala wetland ecosystem status under the prevailing human threats.
- b. To establish sustainable community-based detailed monitoring scheme for Yala wetland.
- c. To undertake training, conservation education and public awareness for attitudinal and behaviour change towards wetland conservation among Yala Wetland community.
- d. To show case sustainable alternative livelihoods for community households adoption to eliminate human pressure on the wetland.

The project has been running from February 2008 and managed to achieve the following milestones:

## **ACTIVITIES**

### **Yala wetland habitat survey and monitoring scheme establishment**

Yala wetland survey was undertaken for five days (30<sup>th</sup> May-3<sup>rd</sup> June 2008) and biophysical and socio-economic data on Yala wetland collected by help of volunteers (Figures 1, 2 and Table 1). The full survey report is available. The survey resulted in baseline information on its flora and fauna focussing more on birds and few plants. The outcome indicates that Yala wetland still hosts rich biodiversity but it's under great pressures from anthropogenic activities such as farming, livestock grazing, burning and over-harvesting for craft industries.



**Figure 1: Survey and Monitoring Volunteers in front of Kanyaboli Satellite Lake**

The survey involved point sampling along earmarked transects on the lakeward and landward side. The recorded data included human activities, GPS points, papyrus and other flora identification and conditions and birds. Similarly, grassroots volunteers were involved in two tier monitoring approach during establishment of transect and field monitoring of Yala wetland. This involved domestication of wetland monitoring protocols developed for Important Birds Areas (IBAs) by Nature Kenya for Site Support Groups. Thus wetland was surveyed and monitored through:

- First Tier-Basic Monitoring
- Second Tier-Detailed monitoring



**Figure 2: Volunteers Surveying and Monitoring Yala Wetland, Hawinga Side.**

The first tier (basic) monitoring is based on a regular review from the field. It forms an accepted, predictable and sustainable system. The same set of indicators will be

measured across Yala swamp in consequent surveys and monitoring. The second tier (detailed) monitoring was aimed at assessing the biophysical conditions as manifestation of threats that need to be tracked, that is, the papyrus vegetation, papyrus endemic birds and the water quality. These are normally not captured in the basic monitoring. The surveys produced baseline information on Yala wetland such as checklist of birds, plants and flowers.

**Table 1: List of Volunteers during Yala Wetland Survey and Monitoring**

NO.	NAME	INSTITUTION
1	Risper Otieno	Friends of Yala
2	Richard Juma	Friends of Yala
3	Lucy Lumutu	Friends of Yala
4	David Oloo	Friends of Yala
5	Ibrahim Onyango	Friends of Yala
6	Peter Otieno	Friends of Yala
7	Julius Opondo	Friends of Yala
8	Zachary Okoro	Friends of Yala
9	Francis Omungo	Ecofinder
10	Michael Owiti	Ecofinder
11	Jacktone Hamisi	Ecofinder
12	Veronica Atieno	Ecofinder
13	Judy Juma	Ecofinder
14	Erick Owira	Ecofinder
15	David Owaga	Ecofinder

### ***Emerging Issues***

The survey provided reasonable baseline information on biophysical and socio-economic aspects of Yala Wetland to kick start conservation action, however, the following emerging issues will be addressed:

- i. The survey concentrated on Hawinga side of the wetland and there is need for additional survey for the entire wetland.
- ii. The produced checklist of birds, plants and flowers of Yala Wetlands was not exhaustive and there is need for improvement in future survey, monitoring or census.
- iii. There is need for multiple flora and fauna species survey for the entire wetland, that is incorporation of other species such as amphibians, reptiles, insects and fishes amongst others.
- iv. There is need for valuation of wetlands ecosystem goods and services to enable mainstreaming of the same into local and national planning.

### **Community training, conservation education and public awareness**

Training through participatory workshop was undertaken in Hawinga primary school from 30<sup>th</sup> May -1<sup>st</sup> June 2008, for eighteen patrons of nature clubs (Table 2) from ten respective primary schools. The participants' expectation included:

- i. How to be environmentally conscious.
- ii. More information about wetland and environment.
- iii. How to care for the wetland and general environment.
- iv. Learn on sustainable ways of living.
- v. Get equipped with knowledge and skills on environmental management.
- vi. How to improve the environment within the schools.
- vii. Learn how to co-exist with the environment and protect it.
- viii. Learn more about the ecological sanitation toilet (Ecosan toilet).
- ix. How to develop proposals so as to start up environmental activities within school.
- x. Understand the concept of eco-school.
- xi. Get to know one another and learn from them.

**Table 2: List of Nature Club Patrons Trained During the Workshop**

<b>Names</b>	<b>School</b>
1. David Ochieng	Rasugu Primary School
2. Erick Ouma	Rasugu Primary School
3. Daviid Akong'o	Uwasi Primary School
4. Charles Onyango	Uwasi Primary School
5. Michael Omondi Ambogo	Uhembo Primary School
6. Abel Ochieng	Uhembo Primary School
7. George Ogangra	Nyandheho Primary School
8. Musa Ahoo	Nyandheho Primary School
9. Erick Omondi	Ha winga Primary School
10. Julius Oloo	Mahero Primary School
11. Julius Ogalo	Mahero Primary School
12. Tom Okanda	Gangu Primary School
13. John Todo	Nyakado Primary School
14. Calisto Lumutu	Dibuoro Primary School
15. Abisalom Mbolwa	Misori Primary School
16. Nancy Ouma	Misori Primary School
17. John Odinga	Hawinga Primary School
18. Rosemary Otieno	Hawinga Primary School

The training captured the following thematic areas as to enable wetland conservation education and outdoor activities in those schools:

- a) Environmental education and action: environmental imperatives, wetlands conservation and action approaches, mainstreaming approaches of wetlands conservation in curriculum and co-curriculum activities.
- b) Schools self-sufficiency concept: agricultural education, education for sustainability, eco-schools and school enterprises.

The represented schools finally developed work plan that included projects such as thematic outdoor excursions to the wetlands, poultry keeping, organic farming and tree nursery enterprise to show case wetlands friendly activities and enterprises.

The training and survey was facilitated by practitioners listed in Table 3.

**Table 3: Facilitators for the Training, Survey and Monitoring**

NO.	FACILITATOR	INSTITUTION
1.	Beatrice Onoka	Ecofinder Kenya
2.	Isaac Rayola Ondigo	Site Conservation Officer, Nature Kenya
3.	Moses Odhiambo	Lake Victoria Sunset Birders
4.	Michael Wairoma	Lake Victoria Sunset Birders
5.	Elijah Obadha	Msc Aquatic Science Student, Maseno University
6.	Martha Nzisa	Intern, Birdlife International, Africa

On-site training was undertaken for Friends of Yala and Ecofinder Kenya volunteers (Table 4) on basic and detailed wetland monitoring. Similarly, Yala wetlands monitoring data sheet for bi-annual monitoring was developed through domestication of Nature Kenya IBAs monitoring protocols.

**Table 4: List of Volunteers Trained on Wetland Survey and Monitoring**

NO.	NAME	INSTITUTION
1	Risper Otieno	Friends of Yala
2	Richard Juma	Friends of Yala
3	Lucy Lumutu	Friends of Yala
4	David Oloo	Friends of Yala
5	Ibrahim Onyango	Friends of Yala
6	Peter Otieno	Friends of Yala
7	Julius Opondo	Friends of Yala
8	Zachary Okoro	Friends of Yala
9	Francis Omungo	Ecofinder
10	Michael Owiti	Ecofinder
11	Jacktone Hamisi	Ecofinder
12	Veronica Atieno	Ecofinder
13	Judy Juma	Ecofinder
14	Erick Owira	Ecofinder
15	David Owaga	Ecofinder





**Figure 3: Survey and Monitoring Volunteers Learning how to Use GPS**



**Figure 4: Volunteer Measuring Water pH at Yala wetland**

Conservation Education and Public Awareness (CEPA) through mobile education unit: talks, video shows, theatre and puppetry outreaches in schools and strategic social networks such as beaches, markets and churches were undertaken. The approach involved pre-presentation or performance interaction to establish presenters-audience rapport, presentation or performance and finally facilitated discussion on captured wetland conservation plus issues. 24 outreaches were held and each outreach had audience of approximately 380 (minimum) and 1200 (maximum). The audience segmentation percentage in terms of children, youth, women and men were 20%, 25%, 40% and 15% in that order.

The theatrical repertoires covered themes such as community-based wetlands management, entrepreneurship, wetland wise use concept, tragedy of commons and imperative of leadership, community responsibility and participation in wetlands management. The integral discussions with audience during theatrical outreaches brought out vividly ignorance, negative attitude and behaviour towards wetland: inexhaustible resource for all, failure to link their degrading activities to decline in fisheries resources and water-borne diseases and concentration on consumptive as opposed to non-consumptive utilization of wetland resources such as ecotourism. The discussions enabled sharing on wetland friendly enterprises such as ecotourism, zoning and edge agriculture, organic farming and value addition and alternative raw materials such as bamboo for crafts.

### ***Emerging Issues***

There is need for follow-up scheme for involved schools in terms of resources support and technical backstopping to enable implementation of work plan and transformation into eco-school.

There is need of follow-up scheme to enable bi-annual monitoring of Yala wetland in terms of monitoring gears, data storage and analysis PC or laptop, first aid kit, resources for refresher training, volunteers lunches, coordination and mobility.

There is need for exchange programmes and local partnerships to enhance wetland conservation education and awareness in schools and community.

### **Demonstration of sustainable alternative livelihoods**

The project only managed to organize for training and talks on ecological sanitation, organic farming and tree nursery enterprises for its members and friends of Yala wetland through its partnerships. This was purely due to inadequate resources to facilitate establishment of demonstration projects on ecological sanitation (ecosan toilets), organic farming and tree nurseries enterprises for they were not factored into the current budget. Endeavours are being made to mobilize resources for the same for they will provide alternatives to unsustainable activities and livelihoods impacting on Yala wetland such as farming, pollution from households in the form of human faeces and enable restoration of wetland. Moreover provide learning hub for schools and user-groups on ecological sanitation, organic farming and tree nursery enterprises.

### ***Emerging Issues***

The conservation groups, schools and user groups are willing to adopt ecological sanitation, organic farming and tree-nurseries enterprises. This was exhibited during training, talks and exchange programmes organized for them by Ecofinder Kenya through its partners. Hence need for consideration of the same in our future resource mobilization and project design.

### **Community Involvement and Partnerships**

The project involved grass-root groups and user-groups in project planning and implementation. Friends of Yala, Yala Village Environment Committees, Togo Women Group and Yala village schools were involved in community mobilization, habitat survey and CEPA outreaches.



**Figure 5: Ecofinder Project Team and Togo Women Group after Village meeting**

Partnerships were formed with organizations such as Lake Victoria Sunset Birders, Provincial administration (local chiefs), local authorities (area councillor) in terms of training, community mobilization and political goodwill and support.

The Coordinator of Ecofinder Kenya was invited by Friends of Yala for advance training of Nature Clubs Patrons under Nile Basin Initiative and by Lake Victoria Sunset Birders for training of Dunga wetland counts and leaders on application of EMCA Act, 1999 for Dunga wetland conservation under Rufford Small Grants Foundation funded project.

### **Project Equipment**

The following lists of equipment and materials were successfully purchased during this project and greatly enhanced delivery and effectiveness of this project and will be instrumental in our future Yala wetland conservation activities:

<b>NO</b>	<b>Equipment/Material</b>	<b>No</b>	<b>Purpose</b>
1.	Public Address System (PA)	1	Conservation education and public awareness
2.	Video System (VS)	1	Conservation education and public awareness
3.	Digital Camera	1	Documentation
4.	Global Positioning System (GPS)	1	Wetland Monitoring
5.	Binoculars	2	Wetland Monitoring
6.	Bird Guide Books	2	Wetland Monitoring
7.	Plant Guide Books	2	Wetland Monitoring
8.	Gum boots	12	Wetland Monitoring
9.	Waders	4	Wetland Monitoring
10.	Life jackets	8	Wetland Monitoring



11.	Bicycles	2	Field mobility
12.	Generator	1	Energy conversion for VS and PA



**Figure 6: Moses Odhiambo with PA system speakers for community wetland education and mobilization after final touches.**

### **The remaining project activities**

The project is yet to accomplish the following activities and will endeavour to do so in the months of January-February 2009.

- a) Four conservation education and public awareness outreaches.
- b) Two radio programmes on wetland conservation education and approaches.
- c) Evaluation of the project impact for improvement.

## **CONCLUSION AND RECOMMENDATION**

The project managed to undertake survey of Yala wetland (Hawinga section), establish Yala wetland monitoring protocol, train eighteen nature club patrons and mobilise grass-roots schools and households in terms of wetland conservation education and public awareness towards the conservation of Yala wetland. The following recommendation will suffice:

Landscape or entire Yala ecosystem survey to cover entire wetland and provide baseline information on its status. Ecofinder Kenya is mobilising resources to fill this gap.

Mobilization of resources to facilitate bi-annual monitoring of Yala wetland for appraisal of conservation endeavours and timely conservation action. Ecofinder Kenya has embarked on this need.

Incorporation of upstream, midstream and downstream villages in the conservation programme so that downstream or wetland level conservation efforts are not rendered self-defeating by upstream and midstream degrading activities or livelihoods. Ecofinder Kenya

intend to fill this gap through alliance building and partnerships with upstream and midstream like-minded organizations.

Preparation of Yala wetland management plan. This is a multi-stakeholder process and Ecofinder Kenya aims to deliver on this through forming Yala wetland stakeholder forum.

Networking with like-minded partners and advocacy for transformation of Yala wetland into community conservation area as provided for by Environmental Management and Coordination (EMCA), Act, 1999 or Ramsar site by Ramsar convention

Establishment of wetland wise-use or eco-cultural village for training and showcasing wetlands wise use concept as provided for by Ramsar convention.

# ANNEX

## The Project Budget

RUFFORD Small Grants for Nature Conservation						
I GENERAL INFORMATION						
Project Proposal Name	Community Based Biodiversity Monitoring and Conservation of Yala Wetland, Kenya					
Lead Organization Name	Ecofinder Kenya					
Country	Kenya					
Project Duration	Twelve Months					
Amount requested in Sterling Pounds	5000					
Local currency	Kenyan Shillings (Kshs)					
Amount requested in local currency	634029					
Rate Sterling Pound/local currency	0.0075758 (1:126.8058) Central Bank of Kenya Exchange Rates as at 18/12/2007					
Ecofinder Contribution	The group and community will contribute in-kind and meet the budget deficit.					
II BUDGET BREAKDOWN						
			Budget formula			
BUDGET ITEMS	Description	Unit	# of Units	Unit Rate	Amount in local curr	Amount in UK Pounds
1. Project Costs						
a.Conservation Education	Facilitators Transport and Fuel	Per outreach	28	1000	28000	221
	Video system for Mobile Education	Per set	1	29000	29000	229
	Public Address System	Per set	1	44000	44000	347
	Theatre Shows (Drama and Music)	Per show	12	5000	60000	473
	Radio Programs or Drama	Per program	2	8000	16000	126
	Eco-billboard and Construction	per billboard	1	20000	20000	158
	Sub-total				197,000	1,554
b.Training						
(Site Conservation Group 5 days/15 people)	Writing pads and pens	Per person	35	100	3500	28
(Schools Nature Club Patrons 3 days)	Newsprints	Per roll	12	400	4800	38
	Felt pens	Per pen	22	200	4400	35
	Masking tapes	Per roll	8	120	960	8
	Certificates production	Per cert	35	250	8750	69
	Transport reimbursement - 10000	Per person	35	1000	35000	276
	Meals	Per person	40	350	14000	110
	Facilitators Fee	Per person	3	14000	42000	331
	Hire of Hall	Per day	7	3000	21000	166
	Sub-total				134,410	1,060
c.Habitat Survey & Wetland Monitoring	Habitat survey and monitoring data sheets production	Per copy	2	50	100	1
	GPS	Per one	1	45000	45000	355
	Birds Guide Book	Per copy	2	3500	7000	55
	Plants Guide Book	Per copy	2	3500	7000	55
	Waders	Per one	4	8000	32000	252
	Gumboots	Per one	12	300	3600	28
	Binoculars	Per one	2	7500	15000	118
	Life jackets	Per one	8	900	7200	57
	Boat and Generator Fuel	Lumpsum	Project life	12000	12000	95
	Lunch for Volunteers	Lumpsum	Project life	28000	28000	221
	Subtotal				156,900	1,237
d. Transport	Field Mobility: Bicycles	Per Bike	2	3000	6000	47
e. Communications	Reporting, Coordination Calls	Per Month	12	2000	24000	189
f. Field Allowance	Project Team Leader	Per Month	12	4000	48000	379
	Project Assistants (2 Persons)	Per Month	9	4000	36000	284
	Subtotal				114,000	899
A. Sub-total Project Costs	a + b + c + d + e + f				602,310	4,750
2. Institutional Costs						
g. Office expenses	Stationery and Miscellaneous	Months	12	1000	12000	95
	Digital Camera (Documentation)	Per one	1	18000	18000	142
h. Evaluation	Data Collectors 3 days	Per person	4	3000	12000	95
	Facilitators 3 days	Per person	2	6000	12000	95
	Subtotal				54,000	426
B. Sub-total Institutional Costs	g + h					
Sub-total	A + B				656,310	5,176
i. 5% Unforeseen	Contingency	Project Life			32815.5	259
GRAND TOTAL BUDGET					689,126	5,434