



BOLONG FENYO COMMUNITY WILDLIFE RESERVE



DRAFT MANAGEMENT PLAN JANUARY 2008

Bolong Fenyo Community Wildlife Reserve

ACKNOWLEDGEMENT

Compiling a management plan of a protected area is no easy task, but its obvious usefulness overrides the difficulty of the undertaking. It is difficult because it entails gathering, compiling and shifting through a daunting mass of information and data, as well as verifying their accuracy, since the future development and indeed, survival of the rich biodiversity of the Bolong Fenyo (Gunjur) is at stake.

It is useful because it touches upon such a wide range of topics. History and culture are indissociable from environment and the flora and fauna.

The overall effect is a gradual unveiling of the extraordinary wealth of the Gambian Biodiversity, making it easy to understand the expressions of generosity and interest by those who have given of themselves or their knowledge to defend it.

We wish to commend and thank the men and women who have contributed in many ways to the compilation of this management plan, and we are convinced that such a high professional, accurate, and informative work will be an excellent guide for the noble and exciting mission which the GEPADG staff under the ICAM project has to fulfill in a new millennium full of hopes and challenges.

In preparing this management plan of the Bolong Fenyo Community Reserve, many people have been of immense assistance toward the preparation of this management plan.

We wish to acknowledge our indebtedness to the Government of The Gambia, the Department of State for Forestry and the Environment and the Department of Parks and Wildlife Management, the office of the Governor (Western Division). Their support has been a constant and unflinching source of encouragement.

We owe particular thanks to the Coordinator (Ousainou Touray), Momodou A. Cham (Secretary of State, DOSF&E), Dr Almamy Camara then Director of Department of Parks and Wildlife Management, for their guidance, patience and dedication in ensuring a smooth start of the studies.

Sincere thanks goes to all the advisers and partners: the Site management committee, the council of elders, the alkalo, the chief of Kombo South, Manjiki Jabang from Sifoe Kafoo Farm and his Colleagues, representatives from Kunkujang VDC and Beekeeping Association.

We wish to record our particular gratitude to the World Bank Task Manager (Yves Prévost) and other colleagues involved (Tanya Yudelmanbloch, Liba Feldblyum). They have been the foundation pillars supporting the project at all times.

Sincere appreciation is expressed to the ICAM PROJECT and his Management team, and extension staff: Messrs Mawdo Jallow (Head Warden BWR), Kawsu Jammeh (Head Warden Tanbi WR), Ibrahima Matt Dia, the resident Technical Adviser, Siaka Jarju, ICAM Project driver for their valuable support and responsibilities.

Finally, we wish to leave on record our heartfelt thanks to our family members, GEPADG field staff members and all those who help in one way or the other for the implementation of this survey, for the unflinching support and unlimited patience throughout this time demanding period.

To render justice, we cannot end without expressing our gratitude to our dearest sister Mrs Binta Bajo for providing logistics to the GEPADG

Badara Njie Bajo
Executive Director-GEPADG

Bolong Fenyo Community Wildlife Reserve

EXECUTIVE SUMMARY

The Gambia has lost most of its larger wildlife species around the turn of the century. The Banjul declaration signed by the then president D K Jawara (1977) is a clear statement of acknowledgement by the government of the gravity of the situation. This declaration stated:” it is a sobering reflection, that, in a relatively short period of our history, most of our larger wildlife species have disappeared together with much of the original forest cover”.

The Department of wildlife conservation was first established in 1968 on the request of a British national Eddy Brower, to ensure rationale protection and conservation of the remaining fauna and flora so as the Gambia will be beneficiary in general and individual areas in particular to gain maximum returns. These benefits can be named as ecological, financial, cultural, and scientific for economical profits as related to the management of wildlife.

The name of the department was changed to the Department of Parks and Wildlife Management in 1994 to broaden its role into wildlife management and its sustainable conservation.

To note that everywhere in Africa, the trend of loosing wildlife species and its habitat was a real concern; most countries started establishing protected areas to save what was left. My country, the Gambia, was no exception.

It was against this grim background that the wildlife conservation act of the 14 /2/1977 was adopted by the national assembly to provide room for the conservation and sustainable management of wildlife in the country.

Since 1988, three national parks and four nature reserves have been established. Although these make up only 4% of the national territory, it is the government policy to:

- Put at least 5 % (medium term, 10 years) of the national land area under the wildlife department.
- Manage and develop these protected areas both for tourism and protection and
- To carry out research to provide baseline information necessary for the formulation of management plans for the various protected areas.

To quote camara et al (1994) the new wildlife policy was developed in line with the environmental and socio-economic policy objectives of the country’s programme for sustainable development. It takes into account recommendations of international agreements and conventions as they relate to the Gambian situation. Areas of particular interest include: coastal habitats, eco-tourism, settlement patterns and over population, buffer zone, hunting, migratory species, border ecosystems, multiple land use approach, regional balance, collaboration with other services and international cooperation through conventions.

The Gambia’s coastal zone comprises several hundred thousand hectares of critical habitats, including coastal beaches, tidal creeks, rivers and marshes, brackish wetlands, mudflats and mangroves. Significant levels of biodiversity are found here, including dozens of important and threatened species (IUCN 2007).

Over the past several decades, The Gambia has made great progress in the establishment and management of protected areas and in the preservation of important coastal resources. In addition, with support from the Integrated Coastal and Marine Biodiversity Management Project and related initiatives, the Department of Parks and Wildlife Management has begun to help the establishment of key biodiversity sanctuaries as Community Wildlife Reserve with the Bolong Fenyo (in Gunjur village) as a case study to be emulated throughout the country upon success of this initiative for a wider protection of biodiversity elements of the coastal zone, including turtles, dolphins, manatees and birds, among other species and habitats..

The Bolong Fenyo community reserve is a proposed area by the community of Gunjur village (Kombo South) under the guidance of the Gunjur Environmental Protection and Development

Bolong Fenyo Community Wildlife Reserve

Group (GEPADG). This document describes a clear strategy to manage and conserve biodiversity outside government owned protected areas. With this we seek to document, organize, formalize and expand upon important initial work on biodiversity conservation and management in The Gambia, while meeting obligations of the Convention on Biological Diversity for greater involvement of local communities in Biodiversity conservation and management activities.

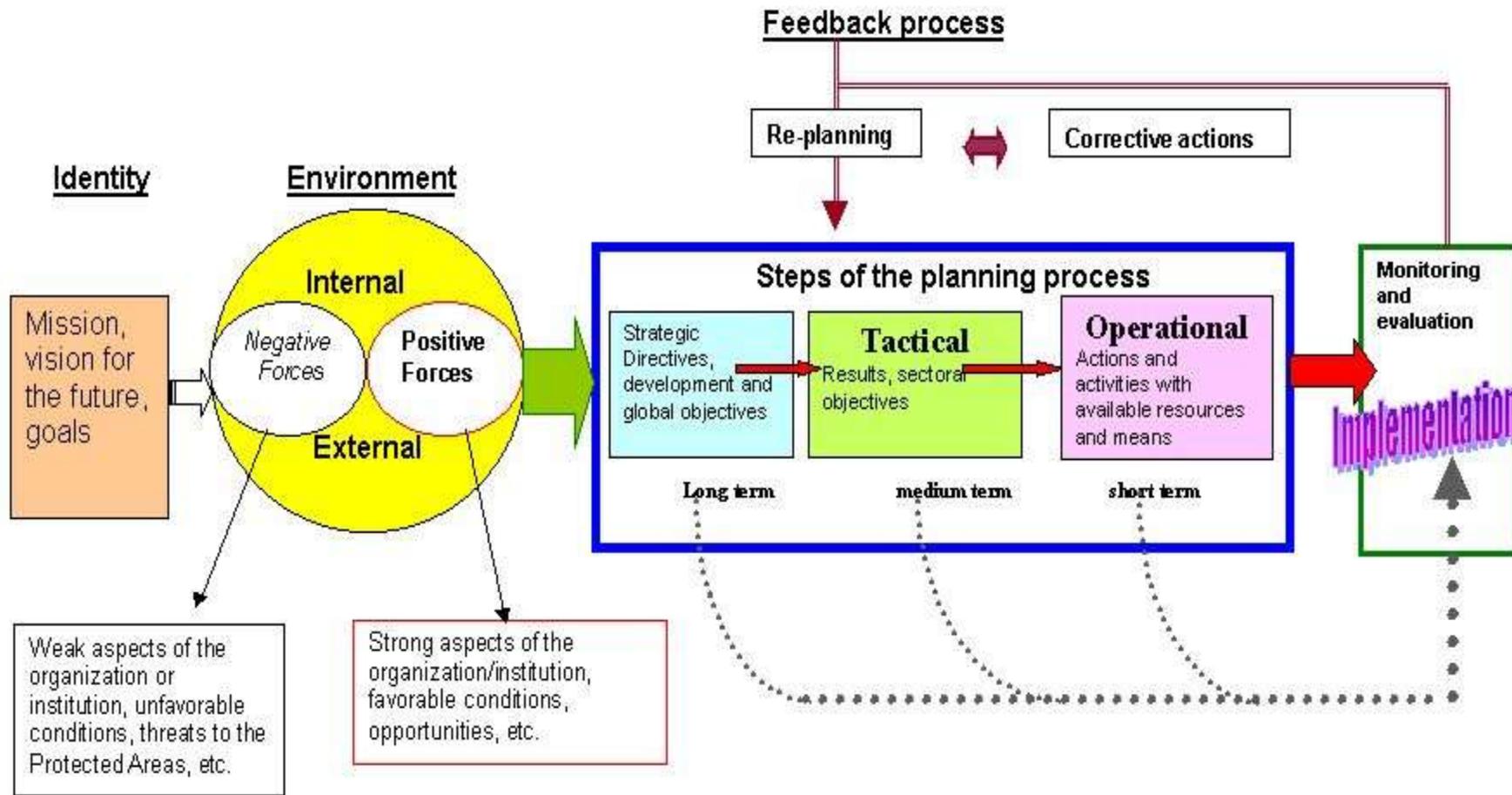
The Bolong Fenyo Community Wildlife Reserve Management Plan has several main components. These are:

- **1. Introduction:** Information on the protected area location, size, legal status, and principal goals and objectives.
- **2. Ecological Systems and Components:** Descriptions and maps of key ecological processes, priority natural communities, and endemic, threatened, and migratory species.
- **3. Socio_economic Conditions and Compatible Development:** Descriptions and maps of important access routes, land tenure and resource uses, social organization and important cultural aspects of local communities, and governance issues. In addition, a list of the environmental goods and services produced by the area is also important.
- **4. Threats to Ecological Integrity or Species:** Descriptions and maps of location, type and magnitude of stresses induced by human use (or misuse) of the ecosystems or other natural phenomena. A scientific understanding of the sources of these threats will be the basis for defining priority actions to ensure compatible uses of the natural resources.
- **5. Vision, Goals and Strategies:** Descriptions of the anticipated future condition with clear goals, priority strategic actions for resource management, public use, and administration of the protected area. Measurable benchmarks should be defined at this stage to assist in monitoring progress.
- **6. Development Phases:** A 3_5 year chronogram of priority programs and activities that also indicates key benchmarks and coordination between diverse components.
- **7. Organization and Staffing:** A definition of the roles and inter-relationships between the lead organization responsible for the protected area and other collaborating institutions and communities.
- **8. Budget:** Spreadsheets that detail cost estimates by fiscal year of all necessary activities to achieve the protected area's objectives.
- **9. Funding Sources:** Multi_year spreadsheets that define anticipated funding sources for budgeted activities.

In preparing this document, based on the findings of the PRA exercise undertaken earlier on, for the benefit of the Gunjur Village inhabitants and whoever working in the Bolong Fenyo Community Wildlife Reserve, the ICAM project management unit, together with the staff of GEPADG and the Site Management Committee agreed to brainstorm on the model shown below as the first step to identify the various key components of the proposed plan.

Some components of the theoretical structure defined here have now been put in place; in fact, the process framework for the designation of the area as a community wildlife reserve is already well underway. That said, the conception of this important management planning tool serves as a beginning only, and much important work remains to be done to ensure that the important coastal resources of this southern part of The Gambia remain for future generations to use and enjoy.

Figure 1. Steps in Preparing a Protected Area Management Plan



Bolong Fenyo Community Wildlife Reserve

Table of content

1. Introduction.....	3
2. Ecological Systems and Components.....	4
3. Socio_economic Conditions and Compatible Development.....	9
4. Threats to Ecological Integrity or Species.....	14
5. Vision, Goals and Strategies.....	14
6. Development Phases.....	18
7. Organization and Staffing.....	21
8. Budget.....	24
9. Funding Sources.....	25
10. Annexes.....	26

Bolong Fenyo Community Wildlife Reserve

GEF	Global Environmental Facility
GOTG	Government of The Gambia
HQ	Head Quarters
ICAM	Integrated Coastal and Marine Biodiversity Management
L&S	Lands and Survey
MOU	Memorandum of Understanding
NBSAP	National Biodiversity Strategy and Action Plan
NEA	National Environmental Agency
NGO	Non Governmental Organization
PC	Project Coordinator
PMU	Project Management Unit
PRA	Participatory Rural Appraisal
PRCM	Programme Régional de Conservation Côtière et Marine
PSC	Project Steering Committee
SMC	Site Management Committee
TA	Technical Assistant
TOR	Terms of Reference
TWC	Tanbi Wetland Complex
TNP	Tanbi National Park
WB	World Bank
WWF	World Wide Fund for Nature
WWF/WAMER	World Wide Fund for Nature/Western African Marine Ecoregion

Bolong Fenyo Community Wildlife Reserve

1. Introduction:

The Bolong Fenyo Community Wildlife Reserve is situated along the Atlantic coast of West Africa, in the Gambia. The geographical coordinates of the site are 16°46'E - 16° 47' E - 13°09'N -13°29'N (16°46'E-13°09'N).

In addition to its important scientific location, the site is situated within easy access of existing centers of population such as the capital city Banjul (35 Km), Serekunda and other areas like Bakau and Brikama. The reserve includes 400 Meters of coastline, open beach.

The Bolong Fenyo Community Wildlife Reserve is a proposed protected area owned by the community of Gunjur, covering 320 hectares. It has a very important and high diversity of avifauna. That was the cause of its protection. It is more importantly a roosting and feeding area for terns, gulls and other species. The Bolong Fenyo Community Wildlife Reserve is to be gazetted as the first national community owned reserve and although not yet designated it has been an area under close monitoring as an African Waterfowl Census area since 2000.



A foot trail in the reserve

2. Ecological Systems and Components:

- **Climate:**

The climate of the Gambia is sub tropical or “soudano-sahelian” with a long dry season from November to May. According to Camara and Drammeh Fatty (1997), the average annual rainfall is about 800-1200mm per year, concentrated in the rainy season from June to October, but the amount, intensity and distribution is highly variable throughout the country and from one season to another. Long-term data suggested that annual average rainfall has been declining over the last 30 years. A decreasing trend in rainfall has been observed since the sixties, a cooler period in the eighties and lower atmospheric humidity during seventies and eighties. Average daily

Bolong Fenyo Community Wildlife Reserve

temperatures are 30°C in the dry season and 27°C in the wet season. The tidal range reaches a maximum during equinox spring tides at 2.0m, and influences the river level as far as Fatoto 10 Km from the eastern boundary of the country .as indicated in FAO UNEP (1996), cool, dry dusty winds blow in from the Sahara Desert during the months from November to April.

Behind the mangrove fringe there are salt flats, where the salinity is too high to support vegetation with the exception of a few hardly plants such as the succulent *Sesuvium portulacastrum*. As the land rises to the East, the saline intrusion diminishes and the river takes on freshwater characteristic with water lilies and other aquatic herbs choking the watercourses during the rainy season. It is a dynamic system and significant changes can result from a single flood or storm (Department of Parks and Wildlife Management, 1997).

- Hydrology:

The BFCWR with an area of 320ha has a boundary line of 8 km. The area covers 40km² incorporating the river bed of 20ha. In the catchments area, a community of mangrove covering 8,5 ha partially affected by bush fires. The slope is very important and exceed 5% in some areas. The bolong that cut the reserve in two was in the past, connected to the ocean. It depended a lot on the tidal waves of the Atlantic Ocean thus the presence of the mangrove in the area. Presently the area is heavily degraded, lots of tress and animals species have disappeared or becoming rare. Around Fabadinka, the mangrove is heavily degrading and bare sand deposit is prevailing with acidification process at a very advanced stage.

- Geology and geomorphology

According to Whyte and Russell (1988), this laterite can be distinguished from the ironstone crust formation that occurs in the East part of the country on several characteristics. The laterite is softer, less dense, contains significant quantities of Kaolinitic clay and include more embedded Quartz grains thus the deposit can be considered to have progressed less far along in the process of laterization. The rocky headlands are eroding but the sandy part of the coastline have been a predominantly deposition zone since the end of the Noakchoktian transgression (White and Russell, 1988).

- Soil

Soils of The Bolong Fenyo Community Wildlife Reserve generally consist of laterite sand and gravel with alluvium deposits. According to FAO UNEP .1996, soils in the western part of the country are deeper while those in the eastern part are characteristically shallow usually less than 0.5 m, with underlying cuirass.

The predominantly sand deposits in the surf zone (present beach) and the raised or ancient beach (usually covered with vegetation) have been grouped together as the Holocene coast beach complex FAO UNEP, 1996 .The raised beaches consist of yellowish medium to fine sands with distinctive black coloring as a result of heavy mineral presence (ibid). Whyte and Russell (1988) pointed out that the modern beach consists of white to yellow, fine to medium grained, well-sorted quartz sand. The surface of the surf often has a dark color due to the presence of a veneer of fine grained sand containing heavy mineral.

- Flora

The major vegetation types are:

- ❖ shrub woodland species
- ❖ Dry coastal woodland species
- ❖ Mangrove species

Bolong Fenyo Community Wildlife Reserve

- ❖ Salt pan and mud flats species
- ❖ Seasonal freshwater swamps species

There has never been any assessment or research to establish the number of plant species found within the Reserve. However, to date a total of 41 species have been recorded from casual observation of rangers.

- Fauna

To date a total of 16 mammal species and 11 reptilian species have been recorded. Offshore there are three-crab species, humped back dolphin, up side-down jellyfish and mudskipper. Since there has never been any comprehensive inventory of the fauna, the above being results of casual observation probably reflect the characteristic species. The green turtle (*Chelonia mydas*) a nationally threatened species also occur within the area and breeds along the coast.

For mammal, the following were recorded: Epaulet fruit bats, western red colobus, calithrix monkey, Senegal bush baby, Bush buck, red flanked duiker, clawless otter, pardine genet crested, serval, porcupine, Gambian mongoose, hyena (spotted), Sun squirrel, and ground squirrel, cane rat, Gambian giant porch rat, hare.

The following reptiles were also recorded: African rock and royal pythons, Puff adder, spitting cobra, African bush snake, black forest cobra, sand snake, Nile monitor, Nile crocodiles, leatherback and green turtles, chameleon, red flank and armetage skink, skinless and geckoes. For offshore fauna, the humped back and bottlenose dolphins, pilot, Bayde's and Minke whales occur.

The avi-fauna is probably the most known component of the area. According to Sanyang et al (2006) 74 species of birds from 61 families, were recorded from the reserve. Among these resident species account from 61%; intro-African migrant 11% and palearctic migrants 27%. This was out of 515 species in total nationally and 75 families nationally. However the latest record according to the Claydens (1998) has reached 439 species for BFCWR.

There is no official data on the status of amphibians and fish species that occur within BFCWR. There has been no investigation into the diversity of invertebrates apart from some sporadic study of the lipidoptera, which has yielded 31 species (L Bannet, pers. Com).

Species that are considered the most important for conservation in the area are the green and leatherback turtles (*Chelonia mydas*), and the hump backed dolphin.

- Communities:

The Bolong Fenyo Community Wildlife Reserve; incorporates mangroves, dry woodlands and coastal dune scrub woodland. Along the seashore these are a series of lagoons. The area has exceptionally high habitat diversity within its comparatively small area. Such habitats include marine, estuary, fresh water marsh, coastal dune, mangrove, woodland/savanna and ticket.

Since there has never been any comprehensive assessment of the Bolong Fenyo Community Wildlife Reserve, there is no reliable data on communities in the reserve. However, the two most common species that occur in the mangrove saltpan area are the red mangrove *Rhizophora racemosa* and the white mangrove *Avicenia nitida*. The mangrove forest which lost its provision of salt water because of the sand deposit at the mouth of the bolong, supposed to provides fish nursery and breeding ground for crab, shrimps, mollusks and other crustaceans. With the availability of fresh water during the rainy season, the area is a prime nesting site and roosting areas for multitudes of shorebirds, rare and migratory birds.

Characteristic plants in the scrub and woodland areas of the reserve are *Acacia* spp, Thinning polio stigma (*Poliostigma thonningii*), African locust bean (*Parkia biglobosa*), mango (*Mangifera indica*), baobab (*Adansonia digitata*), fig (*Ficus* sp), rhun palm (*Borassus*

Bolong Fenyo Community Wildlife Reserve

senegalensis). This more or less open area has basically primary vegetation type, that has been affected by anthropogenic factors over the years and which has maintained the open nature of the zone.



Hydrology survey team



mangrove die back

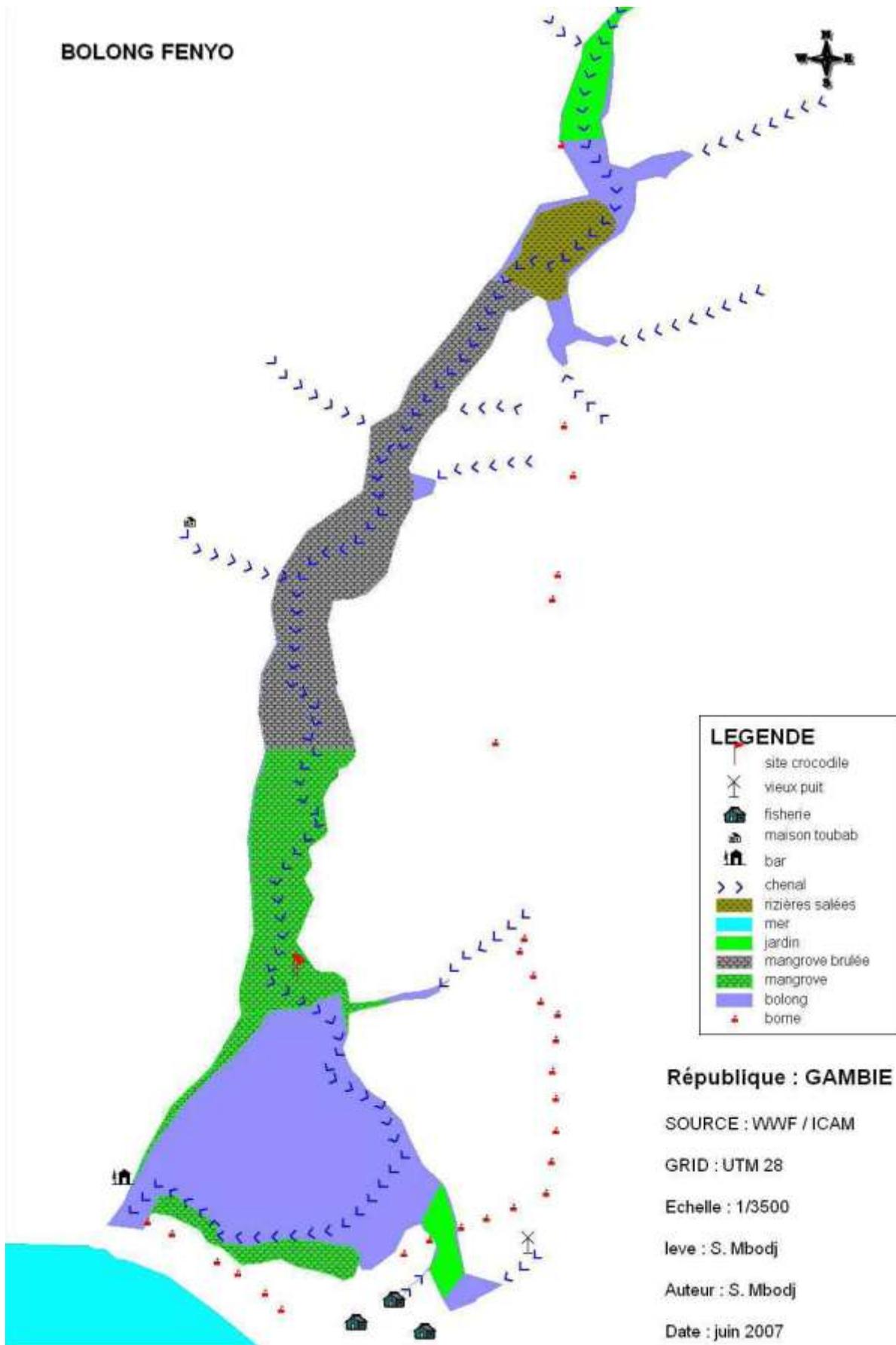


Dried river bed in the dry season

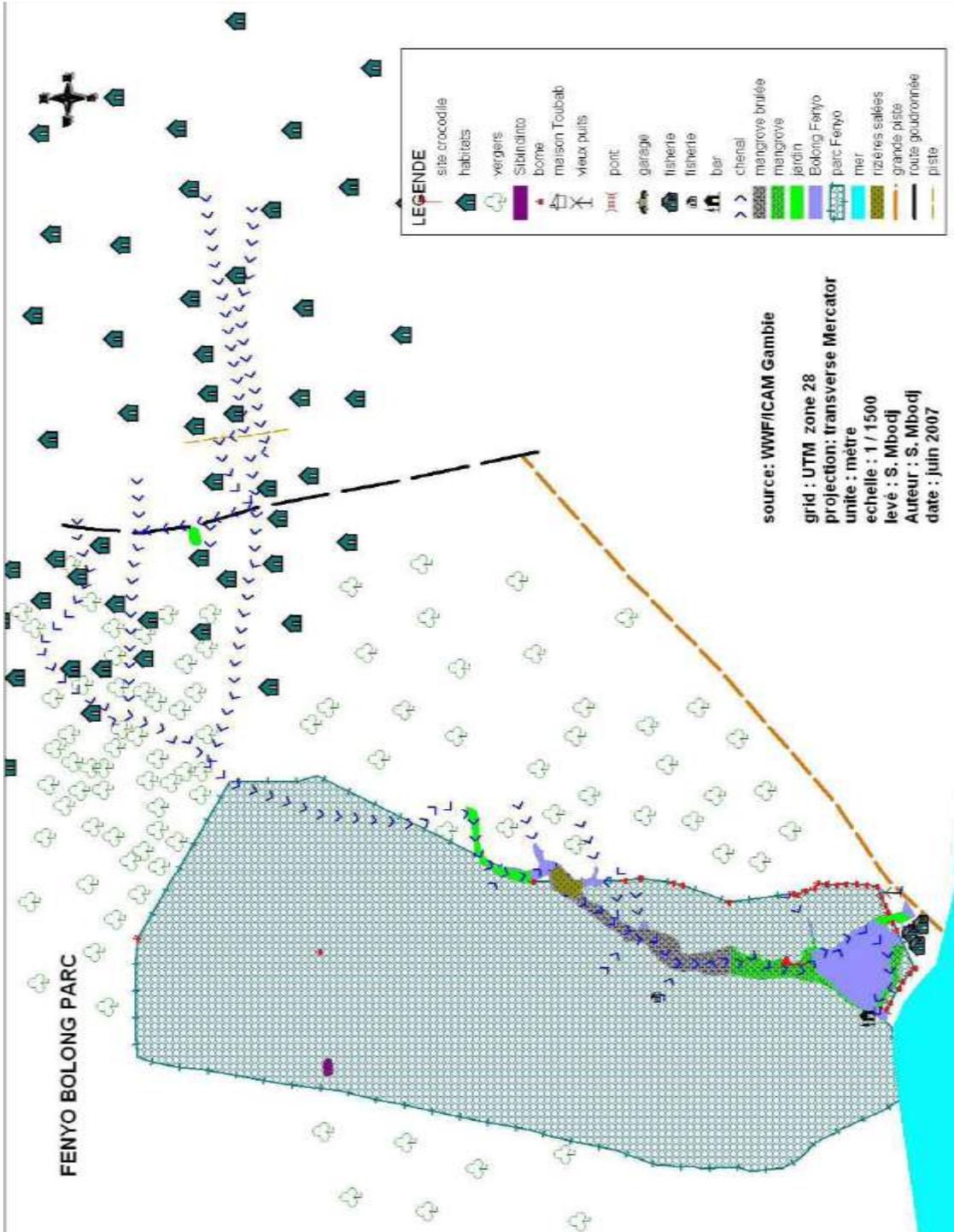


scenic view of the reserve

Bolong Fenyo Community Wildlife Reserve



Bolong Fenyo Community Wildlife Reserve



Bolong Fenyo Community Wildlife Reserve



3. Socio_economic Conditions and Compatible Development:

- Land tenure

The Bolong Fenyo Community Wildlife Reserve is a proposed community owned reserve under the responsibility of GEPADG, so it is under a formal system of land use tenure. Most of the surrounding areas are private farms and the rest are state owned land (Tourism Development Area (TDA), along the coast). There has not been lot of research as to establish the percentage of the various forms of land use around the proposed reserve including village owned land and private farms.

- Past land use

Bounded to the west by the miles of splendid beach, the Kombo's give the capital a pleasant rural hinterland, easily accessible and scenically attractive. According to Tomkinson (1987) the first Mandingos found a safe and peaceful heaven here after their 14th –15th century trek west. With time most villages or settlements were founded by marabouts that came to Kombo from Sonko –Godwin (1995) the villages include Gunjur, Jambur, Sanyang, Brufut and Kartong.

In the recent past, the swamp areas of Gunjur were used for growing rice and some other cash crop production. Other forms of past land use include some fire wood extraction, horticultural production, palm leave gathering, palm wine tapping, oyster collection, palm nut extraction for palm oil, hunting, grazing and access to and from fishing pirogues.

Bolong Fenyo Community Wildlife Reserve

- Present land use:

The Bolong Fenyo Community Wildlife Reserve is a strictly communal land owned by the Gunjur Community. Limited cattle grazing and access to and from the fishing area. There is no zonation within the reserve. There is also the fishing center and ice plant as well as the processing and marketing of fish and other product. The proliferation of beach bars and lodges in the area is becoming a concern.

- Past management –nature conservation.

Prior to the advent of the GEPADG as an NGO, there was virtually no nature conservation management in the area

- Landscape

The topography of the area is generally flat to the South but rising at roadside to the North to approximately low above high tide level with a gradual slope to coastal area.

- Ecological relationship and implication for management:

The ecological value of the reserve is very high especially for avi-fauna (both migratory and residential), zoological (both marine and terrestrial), botanic and also encompassing a cultural site. It is not a self-contained ecosystem so that its long-term viability will be largely affected by surrounding human activities with a bearing on the area. These activities include poaching, logging, beach driving, firewood collection, and so many others. Consequently the whole of the Bolong Fenyo Community Wildlife Reserve should be protected. Before any development projects are carried out, in the area, there should be an assessment of their impacts on the wildlife and the environment. Furthermore, where appropriate such projects should be assessed during and after implementation by way of environmental audits (EIA &EMP). In the same vein, the effect of the high way /Kombo coastal road (which passes on the northern side of the reserve) on wildlife and the environment should be continually assessed vis a vis future rehabilitation programme.

The area is very fragile and provides critical roosting ground for both residential and migratory species of birds. It is also a breeding ground for green turtles.

Coastline erosion has been documented as one of the environmental hazard that has degraded the Gambian coastline. According to FAO, UNEP (1996), the rate of erosion of the Gambian coast has been estimated on the average to 1 to 2 meters per year amounting to a land loss average 2.5 to 3 hectares of land per year or 200-300 000m³ /year (Delft Hydraulics, 1992). Coastal erosion is caused by both natural and anthropogenic factors. So unless effective coastal erosion combating measures are taken, the area will be seriously devastated in few years. The main threats or disturbance factors here are the highway (road, pollution, sand mining, coastal erosion, poaching, logging and beach driving).

factors influencing achievement of long-term objectives

- Internal natural or biotic factors

Owing to low level of precipitation and season variations, there is variation in water level. For instance, during the rainy season, the bolong Fenyo is usually completely full water. Over the past couples of years, the regime is so low that there is no break through to the ocean to allow sea water flow in the area at high tide.

The occurrence of wildfires in the reserve can also impact on the vegetation in that it will favor specific vegetation types thus modifying the habitat patchiness with the overall effect on shaping new patterns of natural succession in vegetation.

Bolong Fenyo Community Wildlife Reserve

- **Internal human induced factors (abiotic)**

Human disturbances on the critical coastal area can negatively impact on the colonies of migrant bird species and specially the green turtles. These disturbances include beach driving and egg collection. For instance the coastal areas is considerably vulnerable in that disturbance on the vegetation, here, can lead to high level of soil erosion which will negatively affect the green turtle and other species occurring in the area.

Furthermore, beach driving can destroy turtle eggs and cause disturbance to the feeding and roosting birds. Likewise, pollution of the water can have negative impacts for the variety of dependant wildlife species as well as other tiny marine creatures at the bottom of the food chain.

- **External human induced factors**

The Kombo coastal Highway was conceived without any comprehensive Environmental Impact Assessment and the diversion of the water flow away from its original path has diminished tremendously the amount of water in the Bolong Fenyo. The implication of this is that the hydrological régime was reduced and the break through no more possible. Notwithstanding the amount of water collected by the numerous plantations along the bolong from the coastal road towards the reserve, erosion and pollution caused by human activities can lead to increased sedimentation, poor water quality and wildlife diseases downstream. Furthermore, diversion of water supply (ie: irrigation) upstream will lead to a significant reduction of water quantity downstream resulting in the increase of the mangrove die back all over the reserve.

- **Factors arising from legislation**

The management of The Bolong Fenyo Community Wildlife Reserve will be guided by the objectives of the proposed community reserve defined earlier on during the Participatory Rural Appraisal with the legal mandate of the recent Biodiversity Act (2003). The enforcement of the wildlife conservation act is one of the main management activities of the reserve. To give it more power, the wildlife conservation act amendment decree was enacted in 1996, by the new government. However the Wildlife Conservation Act (1977) has got a lot of loopholes and weaknesses, which makes it unsuitable for the present realities on the ground. Apart from sustainable tourism and management activities, no other form of natural resource exploitation is allowed in a protected area in the Gambia, the Bolong Fenyo including.

However in this area, limited grazing is allowed as well as access to and from fishing pirogues. Fishing and clam gathering are also allowed in the lagoon area. Hunting and logging are not allowed. The people of Gunjur have the traditional right to use the area for their cultural activities in ways compatible with the overall conservation objectives.

- **Available resources**

The availability of basic resources (financial, human and material) will determine the extent to which management objectives is met. The availability of funds to purchase basic field and office equipment as well as the need to adequately trained staff by the ICAM project, shall result in effective monitoring and management operations in the area. So, GEPADG will be supported in the short term period to effectively manage the area but the NGO's financial status will a critical factor for the realization of the long term (ideal) management objectives. The Bolong Fenyo Community Wildlife Reserve shall be strongly supported to implement the management plan at the present moment.

Bolong Fenyo Community Wildlife Reserve

EFFECTIVE MANAGEMENT ACTIONS

COASTAL ZONE

GOAL: Maintain the ecosystem

Objective: Protect and maintain breeding ground

Management actions:

- Law enforcement to prevent:
 - Egg collection
 - Beach driving
 - Collection of coastal vegetation

MAINLAND

Zoning:

Strictly reserved zone

It is the whole area right at the middle of the reserve called (Fabadinka), the area stretches 100 meters either side along the banks of the bolong (see zonation map). In These selected areas there are no existing trails, it is set aside for monitoring and research purposes. No one is allowed to venture in there except the managers of the area. These areas are very important for conservation hence we are struggling to regain the amount of species lost long time ago before the inception of the area as a protected area. The bolong is playing an important role for it being the wildlife corridor for species to come and settle in the reserve.

B. Limited used zone

It is the biggest area of the reserve, which encompasses the coastline, the seasonal swamp area, and the rest of the wetland area, the grassland, and some part of the woodland areas. With an estimated area more than 65% of the total area of the reserve, it is set aside for potential tourism activities.

The bolong is a very important feature in the whole set up because being the wildlife corridor. Only bikes and foot users are supposed to rally along the trails, which lead to the village. Non-consumption exploitation of natural resources and activities are only allowed in there. . It is in this area where there is forest cover with the thick forest, having animals like hyenas, bush buck, rats and grass cutters. Part of this area are used for palm wine tapping, firewood, and fencing. Long time ago it used to be an upland rice farming area

C. Intensive used zone

It is a stretch covering the area between the road leading to the fisheries center at the beach side and the mangrove fringe on the eastern border of the reserve. This area will be a suitable place for planned office building to be constructed. The area consists of 40ha of dry woodland where the cattle is grazing, controlled logging or pole collection by adjacent community members. Palm wine tapping, palm nuts and leaves collection are allowed in the area but under serious monitoring. The authorization of this kind of exploitation will be centralized at the management headquarters and an acquisition of permit will be enforced. Cattle grazing activity must be monitored and an acceptable level of impact on the vegetation be established for scrutiny. This savannah woodland area will be suitable for such activities because it can help in maintaining the area as open as possible for potential grazing patch for the nocturnal antelopes occurring in the reserve.

Bolong Fenyo Community Wildlife Reserve

Monitoring and survey of Endangered Species

- Marine Turtles:

Under the implementation framework of the ICAM Project, consultants from the University of Exeter, UK together with the staff of the DPWM, Fisheries Department and GEPADG, a student of the University of The Gambia and some local community members worked on the monitoring and survey of the marine turtles along the Atlantic Coast of the Gambia. A comprehensive and in-depth assessment of the marine turtles was carried out and weekly beach patrols and regular in- water surveys are organized please. refer to consultancy report (available at the DPWM HQ).



Marine turtle survey team at work

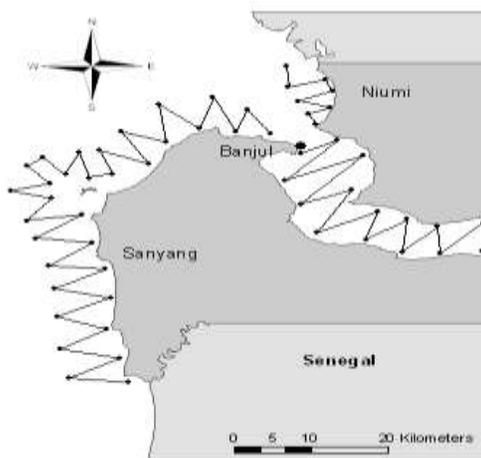


marine turtle beach survey

- Cetaceans :

The cetacean study undertaken by the DPWM, under the implementation framework ICAM project was carried out in the area. Among the trained dolphin survey team members two staff of GEPADG participated in the whole programme and played active role in the exercise.

Sightings were not important compare to Tanbi area but it has been noted that the area is a potential site for cetaceans sightings (please refer to study report).



The study area



spotted dolphin with offspring

Bolong Fenyo Community Wildlife Reserve

4. Threats to Ecological Integrity or Species:

The deterioration of the Natural Resources in the reserve is due to numerous constraints among them are the following.

- Lack of enough rainfall due to the 70's drought which prompted the loss of accumulated run – off in the catchments area.
- Lack of demarcated boundary lines.
- Coastal road construction project did not take into account the drainage system previously available and block most of the waterways from the village especially at Karanding.
- The catchments area transformed as a settlement area with the expansion of the Gunjur village. With this blockade, gullies are observed everywhere in the village and sometimes destroying human settlements and poisoning drinking wells.
- .Intensive deforestation due to the expansion of the village and agricultural fields, important trees felling for commercial gain, bush fire this facilitatory the breakdown of the morph dynamic equilibrium.
- Intensification of erosion and sedimentation ridding in the disappearance of the waging to.
- The reduction of the ground water due to the education of infiltrations.
- The occurrence of round deposit repeating the sea to the bolong and blocking the perpetration of salt water into the area. This lack of salt water is the principal factor of intensive mangrove die back

5. Vision, Goals and Strategies:

Vision: BY THE YEAR 2020 TO ENSURE THAT EFFECTIVE MANAGEMENT SYSTEM IS PUT IN PLACE FOR THE SUSTAINABLE MANAGEMENT OF THE BFWCR RESOURCES AND TO ENHANCE SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT OF SURROUNDING COMMUNITIES.

NATURAL RESOURCES MANAGEMENT

GOAL: Maintain and improve the existing system as near as possible to the natural state

Objective 1: Protect the system where possible

Management actions

- Monitoring and research
- Protect from human disturbances
- Eliminate poaching
- Prevent inappropriate land use
- Conservation awareness promotion
- Introduce tourists activities that are ecologically compatible by:
 - Conducting EIA or EMP before any tourism development.
 - Drafting and implementing genuine tourism development and marketing plans
 - Regular monitoring of tourism activities in the reserve.

Bolong Fenyo Community Wildlife Reserve

Objective 2: Maintain suitable water flow quantity

Management actions:

- Conduct comprehensive hydrological survey of the watershed and implement recommendations
- Control upstream erosion and pollution
- Sensitize local community around catchments area
- Anti – erosion campaign in the catchments area and the entire village.
- Creation of two new bridges at Karanding.
- Construction of two Irish bridges at the mosque and at the location of the destroyed bridge.
- Conception of a channel (20m width x 60m length) with a set of windows to let or close water from the sea and or from the Bolong.
- Maintain the windmill for permanent fresh water supply in the river bed so as to reduce salt infiltration.
- Dig certain points at Fabadinka to allow water settlement in the catchments for a maximum of 50cm depth.

Objective 3: Maintain fauna species

Management actions:

- Research to establish current status of the mammal species
- Regular monitoring of the species involved
- Law enforcement to protect these species
- Introduce new species if possible

MANAGEMENT OF THE DIFFERENT ENVIRONMENTS

HUMAN RESOURCES MANAGEMENT

Goals: To acquire a skilled and professional manpower

Objective: 1 To build up and maintain the necessary human and institutional capacity for the effective management of the area.

Management actions

- ❖ To secure funding for their monthly remuneration
- ❖ To train a voluntary community ranger on financial management skills

Objective 2.To enhance operations through regular professional and technical training

Management actions

- ❖ Selection of suitable staff for long term and short term, technical and professional training locally and internationally
- ❖ Secure funding for potential training activities during and after the project implementation phase.
- ❖ Periodic in service training of staff members
- ❖ Constant on-the-job training of staff members.

Bolong Fenyo Community Wildlife Reserve

Objective 3. To install a sound human resource management procedure to ensure maximum yield of service provision

Management actions

- ❖ To design clear guideline for enrolment, induction, orientation, etc...
- ❖ Design appraisal form and disciplinary procedures
- ❖ Design motivation procedures and lay down criteria of selection
- ❖ Organize sensitization campaign and fight against transmitted diseases

ENVIRONMENTAL EDUCATION & AWARENESS

Goal: To raise conservation awareness in the area

Objective 1: Establish an environmental education unit

Management actions:

- Secure funding for activities
- Purchase of environmental education equipment
- Preparation of an environmental education programme

Objective 2 : Implementation of community outreach programmes

Management actions

- Inventory of the interpretative material needs
- Purchase and preparation of learning materials
- Putting up interpretative signs.

Objective 3. To provides communities access to information, resources and services which promote sustainable development.

Management actions

- Regular community consultation and dialogue
- Building of an environmental center in the reserve

TOURISM DEVELOPMENT & MANAGEMENT

Goal: To become a tourism attraction center

Objective1: To develop sustainable eco-tourism

Management actions

- To create income generated activities for local communities around the reserve
- Lay down foundation for active and collaborative management of the available resources

Objective 2: To secure financial sustainability of the reserve

Management actions

- Generate revenue for future management efforts of the reserve,,
- To increase the number of tourism related activities to cater for better tourist experience.

Bolong Fenyo Community Wildlife Reserve

ENVIRONMENTAL IMPACT ASSESSMENT

Goal: To develop the area without or having less impact on the environment

Objective 1: To establish monitoring systems to facilitate the process.

Management actions

- To liaise with the National Environment Agency (NEA) for guidance
- To develop a comprehensive EIA or EMP before any development in the reserve

Objective 2: Identify negative impact of development activities to minimize damages to the environment

Management action

- Regular monitoring of all development or service's impacts on the environment

RESOURCES PROTECTION

Goal: To set up and implement a genuine security operation plan to fight poaching in the reserve

Objective 1: To put in place a security operation plan

Management actions

- Assessment need of the area
- Drafting of Security Operation Procedures (SOP)
- Periodic up date of the procedures

Objective 2: A well-trained security staff

Management actions

- Organize periodic in service training on SOP's (once every quarter)
- Emphasis on the job training at all time
- National and international formal training courses for all staff members

Objective 3: Build a strong intelligent gathering mechanism.

Management actions

- Appoint informers, informants and agents
- Establish secure routes for information gathering
- Establish safe intelligence information storage system

Objective 4: Reduce poaching incidents in the reserve

Management actions

- Set up routine patrol plan in the reserve
- Initiate and implement night operations
- Implement emergency operations
- Initiate and implement combined operations

Bolong Fenyo Community Wildlife Reserve

COMMUNITY DEVELOPMENT

Goal: Community involvement in natural resources protection

Objective 1: Encourage community participation in management strategies

Management actions:

- To allow sustainable utilization of natural resources
- To involve communities in resource management
- To reform the land use system

Objective 2 To uplift community living standard

Management actions

- To create job opportunity
- To initiate eco tourism activities like: bee keeping, cultural village, fishing trips, etc...
- To train local community members as eco-tourism guides
- Build toilets on the beach to avoid pollution of water bodies

6. Development Phases:

Activities	Year 1	Year 2	Year 3	Year 4	Year 5
NATURAL RESOURCES MANAGEMENT					
Objective1:Protect the system where possible					
• Monitoring and research	X	X	X	X	X
• Protect from human disturbances	X	X	X	X	X
• Eliminate poaching	X	X	X	X	X
• Prevent inappropriate land use	X	X	X	X	X
• Conservation awareness promotion	X	X	X	X	X
• Introduce tourists activities that are ecologically compatible:			X	X	X
• Conducting EIA or EMP before any tourism development.		X	X		
• Drafting and implementing genuine tourism development and marketing plans	X				
• Regular monitoring of tourism activities in the reserve				X	X
Objective2:Maintain suitable water flow quantity					
• Conduct comprehensive hydrological survey of the watershed and implement recommendations	X				
• Control upstream erosion and pollution		X			
• Sensitize local community around catchments area		X	X	X	X
• Anti – erosion campaign in the catchments area and the entire village.	X	X			
• Creation of two new bridges at Karanding.		X			
• Construction of two Irish bridges at the mosque and at the location of the destroyed bridge.		X			
• Conception of a channel (20m width x 60m length) with a set of windows to let or close		X			

Bolong Fenyo Community Wildlife Reserve

water from the sea and or from the Bolong.					
<ul style="list-style-type: none"> Maintain the windmill for permanent fresh water supply in the river bed so as to reduce salt infiltration. 		X			
<ul style="list-style-type: none"> Dig certain points at Fabadinka to allow water settlement in the catchments for a maximum of 50cm depth. 		X			
Objective 3: Maintain fauna species					
<ul style="list-style-type: none"> Research to establish current status of the mammal species 	X	X			
<ul style="list-style-type: none"> Regular monitoring of the species involved 			X	X	X
<ul style="list-style-type: none"> Law enforcement to protect these species 	X	X	X	X	X
<ul style="list-style-type: none"> Introduce new species if possible 					X
HUMAN RESOURCES MANAGEMENT					
Objective1: To build up and maintain the necessary human and institutional capacity for the effective management of the area.					
<ul style="list-style-type: none"> To secure funding for their monthly remuneration 	X				
<ul style="list-style-type: none"> To train a voluntary community ranger on financial management skills 	X				
Objective2: To enhance operations through regular professional and technical training					
<ul style="list-style-type: none"> Selection of suitable staff for long term and short term, technical and professional training locally and internationally 	X				
<ul style="list-style-type: none"> Secure funding for potential training activities 	X				
<ul style="list-style-type: none"> Periodic in service training of staff members on SOP (Standard Operation Procedures) 		X	X	X	
<ul style="list-style-type: none"> on-the-job training of GEPADG staff members 	X	X	X	X	X
Objective3: To install a sound human resource management procedure to ensure maximum yield of service provision					
<ul style="list-style-type: none"> To design clear guideline for enrolment, induction, orientation, etc... 	X				
<ul style="list-style-type: none"> Design appraisal form and disciplinary procedures (first month of the year) 	X				
<ul style="list-style-type: none"> Design motivation procedures and lay down criteria of selection (after the project lifetime) 	X				
<ul style="list-style-type: none"> Organize sensitization campaign and fight against transmitted Diseases 	X	X	X	X	X

Bolong Fenyo Community Wildlife Reserve

EDUCATION & AWARENESS	X				
Objective 1: Establish an environmental education unit					
<ul style="list-style-type: none"> Secure funding for EE activities 	X				
<ul style="list-style-type: none"> Purchase of environmental education equipment 		X			
<ul style="list-style-type: none"> Preparation of an environmental education programme 		X			
Objective 2: Implementation of community outreach programmes					
<ul style="list-style-type: none"> Inventory of the interpretative material needs 	X	X			
<ul style="list-style-type: none"> Purchase and preparation of learning materials 		X			
<ul style="list-style-type: none"> Putting up interpretative signs. 			X		
Objective 3: To provide communities access to information, resources and services which promote sustainable development.					
<ul style="list-style-type: none"> Regular community consultation and dialogue 			X	X	X
<ul style="list-style-type: none"> Building of an environmental center in the reserve 			X		
TOURISM DEVELOPMENT & MANAGEMENT					
Objective 1: To develop sustainable eco-tourism ventures					
<ul style="list-style-type: none"> To create income generated activities for local communities around the reserve 				X	X
<ul style="list-style-type: none"> Lay down foundation for active and collaborative management of the available resources 				X	X
Objective 2: To secure financial sustainability of the reserve	X	X	X	X	X
<ul style="list-style-type: none"> Generate revenue for future management efforts of the reserve 	X	X	X	X	X
<ul style="list-style-type: none"> To increase the number of tourism related activities to cater for better tourist experience 			X	X	X
ENVIRONMENTAL IMPACT ASSESSMENT					
Objective 1: To establish monitoring systems to facilitate the process					
<ul style="list-style-type: none"> To liaise with the National Environment Agency (NEA) for guidance 	X				
<ul style="list-style-type: none"> To develop a comprehensive EIA or EMP before any development in the reserve 	X				
Objective 2: Identify negative impact of development activities to minimize damages to the environment					
<ul style="list-style-type: none"> Regular monitoring of all development or service's impacts on the environment 			X	X	X
RESOURCES PROTECTION					
Objective 1: To put in place a security operation plan					
<ul style="list-style-type: none"> Assessment need of the area 	X				

Bolong Fenyo Community Wildlife Reserve

• Drafting of Security Operation Procedures (SOP)	X				
• Periodic up date of the procedures		X	X	X	X
Objective 2: A well-trained security staff					
• Organize periodic in service training on SOP's every quarter)	X	X	X	X	X
• Emphasis on the job training at all time	X	X	X	X	X
• National and international formal training courses staff members		X	X	X	X
Objective 3: Build a strong intelligent gathering mechanis					
• Appoint informers, informants and agents	X	X			
• Establish secure routes for information gathering		X			
• Establish safe intelligence information storage e system		X			
Objective 4: Reduce poaching incidents in the reserve					
• Set up routine patrol plan in the reserve	X	X	X	X	X
• Initiate and implement night operations	X	X	X	X	X
• Implement emergency operations	X	X	X	X	X
• Initiate and implement combined operations	X	X	X	X	X
COMMUNITY DEVELOPMENT					
Objective 1: Encourage community participation in management strategies					
• To allow sustainable utilization of natural resources	X	X	X	X	X
• To involve communities in resource management	X	X	X	X	X
• To reform the land use system		X	X	X	X
Objective 2: To uplift community living standard					
• To create job opportunity	X	X	X	X	X
• To initiate eco tourism activities like: bee keeping, cultural village, fishing trips, etc...	X	X	X	X	X
• To train local community members as eco-tourism guides				X	X
• Build toilets on the beach to avoid pollution of water bodies	X				

7. Organization, Staffing and administrative structure:

The organization and administrative structure of The Bolong Fenyo Community Wildlife Reserve is a schematic representation of the hierarchical relationships of the organs, units and positions embodying the authorities and responsibilities of functions necessary for the smooth and effective implementation of activities. It defines the authorities and responsibilities for the coordination of the work behaviour and efforts of the employees in unison for the purpose of accomplishing the set objectives and goals.

The organigramme of the BFCWR is a simple one designed to achieve its objectives in the most effective manner. This structure is presented in Figure below as the organogram of the management structures. It comprises of the:

Draft Management Plan

Bolong Fenyo Community Wildlife Reserve

a). Site Management Committee

Within the framework of its mandate as the village body responsible for policy decision making, the SMC has its specific responsibilities including:

- The Site Management Committee is the sole representative of the Gunjur Village and responsible to report to the village inhabitants.
- take the final decision on the employment and issuance of letters of contract to the GEPADG management staff;
- appointing the members of staff active in the reserve;
- It is also responsible for the overall management and administrative oversight of the reserve.
- Investigation of all conflicts in the implementation of the conservation strategies and proposing alternative lines of decision to GEPADG for their resolution;
- Investigation of all inter-sectoral conflicts affecting the BFCWR and proposing alternative policy decision lines to GEPADG for their resolution;
- Carry out a technical review of any other investment proposals within the BFCWR as to their potential contribution to the achievement of the conservation objectives of the area;
- Advise the local community members on the desirability or otherwise of any such investment proposal based on its findings;
- Ensure that decisions on all matters brought before it, are vigorously enforced and complied with;
- Provide overall policy guidance for BFCWR management;
- Ensure coordination with lawmakers and state decision makers to put BFCWR conservation outcomes within national policy.
- Review and approve quarterly activity and financial reports
- Approve quarterly work plans and budgets;

b). Department of Park and Wildlife Management (DPWM)

The DPWM has overall technical responsibility for the development and management of protected areas and wetlands of wildlife conservation and sustainable significance in the country. As the focal point for the CBD and implementer of the NBSAP, DPWM is the technical adviser of the BFCWR. Its specific function in the implementation of the BFCWR conservation strategy inters alia:

- assist the SMC and GEPADG in the recruitment of technical staff as required for the efficient implementation of conservation strategies;
- assist in the provision of technical, administrative and managerial guidance to GEPADG;
- ensure the adequate integration of the BFCWR conservation outputs into its putative administrative and technical mandate;
- help GEPADG to develop and enter into appropriate MOU with other NGOs and CBOs involved in Biodiversity conservation strategies of the Gambia;
- assist in the coordination and overseeing of the effective integration of the community conservation and development plan of BFCWR site management plan;
- help supervise the implementation of the SMC recommendations;
- support the dissemination and implementation of the BFCWR conservation outcome by the associated agencies, especially Fisheries Department, local fishing associations, local authorities, NGO's, CBO's and MDFTs;

Bolong Fenyo Community Wildlife Reserve

- Provide, through GEPADG and the SMC, support, guidance and advice for project negotiations, problem solving and conflict resolution both internally and among partners including local communities;
- review the Monitoring and Evaluation reports and provide implementation guidance in recommended corrective measures;

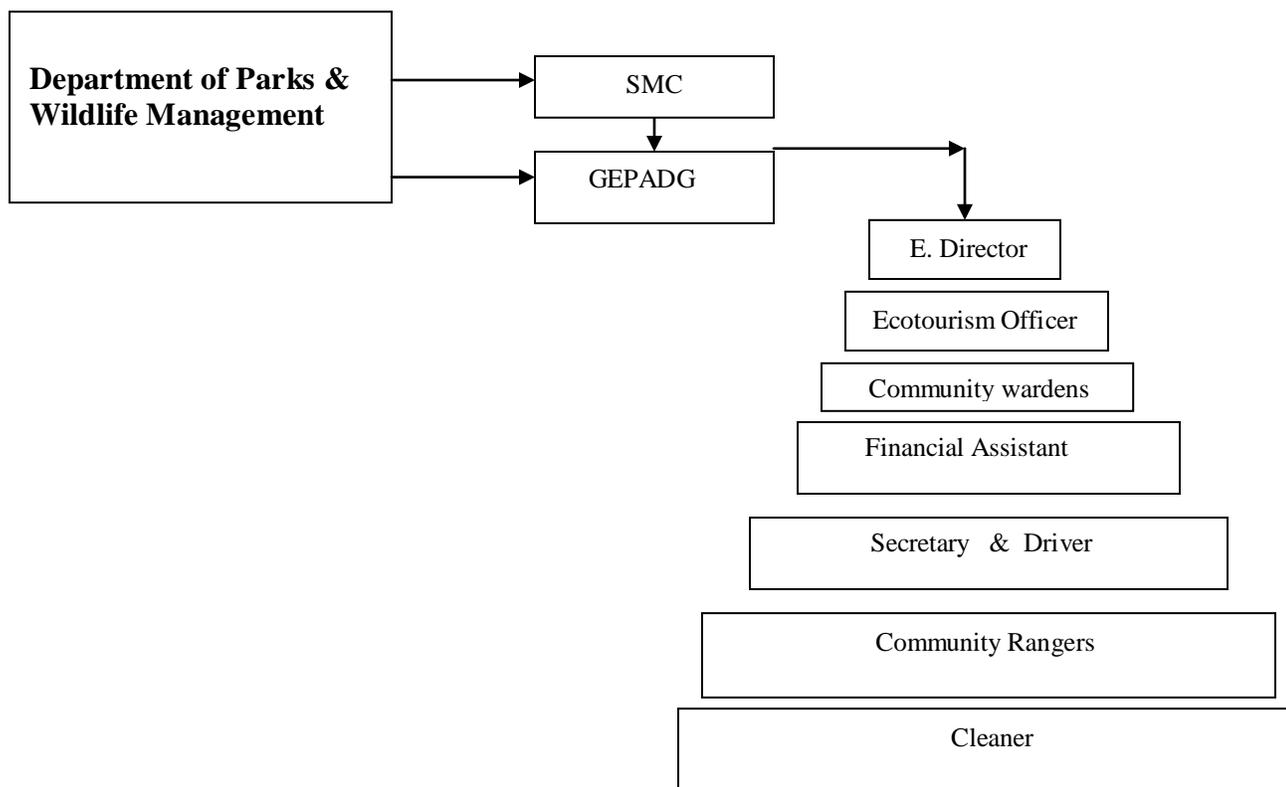
c) Gunjur Environmental Protection And Development Group (GEPADG)

Consistent with its mandate as a conservation management body, the organization and administrative structure of the Bolong Fenyo Community Wildlife Reserve as an entity of its own will be working through partners especially communities, CBOs, NGOs and individuals and will be responsible for overall day- to-day management and supervision of the Bolong Fenyo Community Wildlife Reserve. It comprises of the Executive Director, an Ecotourism officer, two community wardens, a secretary, a driver, a financial assistant, six (6) community rangers, a night watchman, a Cleaner, in specific terms GEPADG will:

- Carry out the day-to-day administrative leadership guidance and responsibilities of natural resources management;
 - Execute the day-to-day professional leadership guidance and responsibilities for the effective implementation of the BFCWR natural resources management;
 - Carry out the day-to-day managerial leadership guidance and responsibilities for the efficient implementation of the BFCWR natural resources management;
 - Carry out the day-to day financial transactions, accounting and control of the BFCWR natural resources management budget;
 - Be responsible for the creation and establishment of the community participatory structures and their effective deployment in of the BFCWR natural resources management;
 - Be responsible for organisation, condition and supervision of the input of all stakeholders and partners of the BFCWR natural resources management implementation process;
 - Be accountable for the ultimate successful implementation of all the BFCWR natural resources management activities and achievement of the area conservation objectives.
 - Be accountable for quarterly financial and management reports on conservation matters and,
- x. These broad administrative, technical, managerial and professional executive responsibilities and authorities of GEPADG are embodied in the detailed terms of references of its staff.

Bolong Fenyo Community Wildlife Reserve

Figure 2.1: Organigram of the BFCWR Management Structure.



8. Budget: Spreadsheets that detail cost estimates (in Gambian Dalasi) by fiscal year of all necessary activities to achieve the protected area's objectives.

Allocation by categories	Sub Totals	Total
Operating cost		1,808,000
<ul style="list-style-type: none"> • Staff management (salaries and allowances) • Stationeries, fuel and lubricants 	1,158,000 650,000	
Goods		2,206,500
<ul style="list-style-type: none"> • Field equipments • Transport logistics • Computer and accessories 	61,500 1,935,000 210,000	
Training and capacity building		4,960,000
<ul style="list-style-type: none"> • Training and capacity building • Conservation awareness materials 	4,850,000 110,000	
Works and constructions		3,548,820
<ul style="list-style-type: none"> • Park infrastructures • Resources maintenance 	2,264,000 1,284,820	
TOTAL		12,523,320

Bolong Fenyo Community Wildlife Reserve

Management Staff Members					
NO	ITEMS/ACTIVITIES	UNIT COST	MONTHLY	YEARLY	TOTAL
7	Community rangers	D 1,500.00	D 10500	D 126000	D 630,000
1	Community rangers/Turtle guide	D 1800.00	D 1,800.00	D 21,600	D 108,000
2	Community Wardens	D 2100.00	D 4,200	D 50,400	D 252,000
2	Cleaner and Watchman	D 900.00	D1,800.00	D 21,600	D 108,000
2	Secretary and Finanacial clerk	D 2000.00	D 4,000.00	D 48,000	D 240,000
1	Driver	D 1500.00	D 1,500.00	D 18,000.00	D 90,000.00
2	Managers	D 5,000.00	D 10,000O.00	D 120,000.	D 600,000.00
	TOTAL				D 2028,000.00
FIELD EQUIPMENT					
10	Uniforms	D 400			D 4,000.00
5	Rainboot/coats	D 500			D 2,500.00
5	Strong touches	D 200			D 1000.00
5	life jacket	D250			D 1,250.00
3	Binoculars	D 2700			D 8,100.00
2	GPS	D 6000			D 12,000.00
	TOTAL				D 28,850.00
Computer and Accessories					
1	Laptop computer	D 45,000.00			D 45,000.00
1	Desklop computer	D 32,000.00			D 32,000.00
1	Printer	D 5,000.00			D 5,000.00
1	Scanner	D 4,000.00			D 4,000.00
2	Dgital camara	D3,000			D 6,000.00
1	Power point projector	D 35,000			D 35,000.00
	TOTAL				D 1,270,000.00
TRANSPORT LOGISTICS					
1	Motorbike	D 100,000			D 100,000.00
1	Vehicle 4x4 pickup	D 750,000			D 750,000.00
10	Bicycles	D 3,500			D 35,000.00
	TOTAL				D 8885,000.00
STATIONERIRS FUEL AND LUBRICANTS					
	Maintenance services quartely	D 4,000.00		D 16,000.00	D 80.000.00
	Petrol cost	D 3,000.00	D 3,000.00	D 360,000.00	D 180,000.00
	Diesel cost	D 7,000.00	D 7,000.00	D 84,000.00	D 420,000.00

Bolong Fenyo Community Wildlife Reserve

	Stationeries	D12,000.00		D 12,000.00	D 60,000.00
	TOTAL				D 740,000.00
CONSERVATION AWARENES MATERIALS					
	Binoculars, leaflets and posters			D 10,000.00	D 50,000.00
	T-Shirts and Caps			D 15,000.00	D 75,000.00
	TOTAL				D 125,000.00
TRAINING AND CAPACITY BUILDING					
	local Training of staffs,			D 10,000.00	500,000.00
	Overseas Training			D 500,000	2,500,000
	Workshops and Seminars			D 300000	1,500,000.00
	Networking and study tours			350,000	1,750,000.00
	TOTAL				6,250,000.00
PARK INFRASTRUCTURE					
	Office building			2,500,000.00	2,500,000.00
2	Birdwatching tower	100,000.00		200,000.00	200,000.00
2	Bird hides	15,000.00		30,000.00	30,000.00
	Trail and Buffer Zone Clearing			20,000.00	20,000.00
	TOTAL				2,750,000.00
RESOURCE MAINTENANCE					
1	Eco-tourism camp	350,000.00			350,000.00
	Anti-erosion campain			530,000.00	53,000
2	Construction of Bridges Irish	80,000.00		160,000.00	160,000.00
	Wndmill maintenance	300,000.00		300,000.00	300,00.00
1	Construction of chanel Resteration of Fabadinka waterhole	20,000.00		20,000.00	20,000.00
4	Construction of public toilets	5,000.00		20,000.00	20,000.00
	Beekeeping community project				170,000.00
					15,730,000.00
ALLCOATION BY CATEGORIES		SUB TOTAL	TOTAL		
	OPERATION COST				
	Staff management salaries	D 2,028000.00			
	Stationeries fuel	D 740000.00	D		

Bolong Fenyo Community Wildlife Reserve

	and lubricants		2,768,000.00		
	GOODS				
	Field equipment	D 28,850.00			
	Transport logistices	D 885,000.00			
	Computer and Accessories	D 1,270,00000	D 2,183850.00		
TRAINING AND CAPACITY BUILDING					
	Training and capacity building	D 6,250,000			
	Conservation awarenes materials	D 125,000.00	D 6,375000.00		
WORKS AND CONSTRUCTIONS					
	Park infracstructure	D 2,750000			
	Resource maintance	D 15,730.000	D 18,480000.00		
	TOTAL		D 29,806850.00		

Cost breakdown of budget requirements

PARK INFRASTRUCTURE				
OFFICE BIOCK BUILDING				
NO	ITEM	COST	TOTAL	
1	600 bags of cement	D 225	D 35000	
2	50 Trip of Sand	D 18000	D 90000	
3	20 Trip of Gravel	D 6000	D 120000	
4	300 Rodes	D 200	D 60000	
5	150 Steel iron	D 1500	D 225000	
6	400 Pcs of wood		D 200000	
7	32 Pkts of Corrigated iron sheets	D 2000	D 640000	
8	30 Pkts Tile	D 4000	D 12000	
9	White Cement 20 bags	D 260	D 5200	
10	Gap nail		D 43000	
11	Binding wire		D 1000	
12	Flush doors		D 15000	
13	Panel doors		D 6000	
14	Door Frames		D 5000,00	
15	Window		D 3000	
16	Ceiling		D 100000	
17	Wiring		D 178500	
18	Plumbering		D 150000	
19	Painting		D 200.000.00	

Bolong Fenyo Community Wildlife Reserve

	20	Roofing		D 50000
	21	White timber		D 50000
	22	Construction		D 250000
		TOTAL		D 250,000.00
PARK INFRASTRUCTURE				
2 BIRD HIDES				
	NO	ITEM	COST	TOTAL
	1	Wood		D 10000
	2	Grass		D 5000
	3	Nail		D 2000
	4	Floor		D 8000
	5	Gravel		D 5000
		TOTAL		D 30,000.00
2 BIRD WATCHING TOWER				
	NO	ITEM	COST	TOTAL
	1	Wood		D 156000
	2	Nails		D
	3	Corriguted iron sheets		D 9000
	4	Bundle of grasses		D 20000
	5	Cement		D 5000
	6	Local Fence		D 1000
	7	Gravel		D 4000
		TOTAL		D 200,000.00
RESOURCE MAINTENANCE				
ECO-TOURSM CAMP				
	NO	ITEM	COCT	TOTAL
	1	85 bags of cement	D 225	D 19,125.00
	2	15 Pkts Currigated iron sheets	D 1,600	D 24000
	3	Wood		D 200000
	4	Nail		D 3000
	5	Grasses		D 15000
	6	10 trip Sand	D 1800	D 18000
	7	Gravel 2 trips	D 6000	D 12000
	8	Doors and Frames		D 11500
	9	Windows and Frames		D 9600
	10	Painting and Roofing		D 37775
		TOTAL		D 350.000.00
2 CONSTRUCTION OF IRISH BRINDGES				
	NO	ITEM	COST	TOTAL

Bolong Fenyo Community Wildlife Reserve

1	400 Bags off Cement	D 225	D 90000
2	10 Trips of Sand	D 1800	D 18000
3	3 Trips of Gravel	D 6000	D 18000
4	150 Rodes	D 200	D 30000
5	Wire		D 4000
	TOTAL		D 160000
	CONSTRUCTION OF CHANNELS		
1	Gravel(black)		D 200000
2	400 Bags off Cement	D225	D 90000
3	300 Rodes	D 500	D 150000
4	Sand		D 60000
	TOTAL		D 500000
	RESTORATION OF FABADINKA WATERHOLE		
1	Digging		D 15000
2	Materials		D 5000
3	TOTAL		D 20000
	4 CONSTRUCTION OF PUBLIC TOILETS		
1	20 bags of cement	D 225	D 4500
2	1 trip if sand		D 6000
3	4 Pkts currigated ironsheet	D 1600	D 6400
4	Nails		D 500
5	Rhum palms		D 2300
6	Gravel		D 300
	TOTAL		D 20,000.00
	ANTI-EROSION CAMPAIGN		
1	T-shirts		D 30000
2	Printing cost		D 5000
3	Caps		D 10000
4	P.A systm		D 8000
	TOTAL		D 53000

Bolong Fenyo Community Wildlife Reserve

BOLONG FENYO BIRDS Checklist

NO.	NAME OF BIRDS	SCIENTIFIC NAME
1.	Pink-Backed Pelican	Pelecanus Rufescens
2.	Hammer Kop	Scopur Umbretta
3.	Long tailed Cormorant	Phalacrocorax africanus
4.	Cattle egret	Bubulcus Ibis
5.	Squacco Heron	Ardeola Ralloides
6.	Black egret	Egretta Ardesiaca
7.	Western Reef Heron	Egretta Gularis
8.	Little egret	Egretta Garzetta
9.	Great White egret	Egretta Alba
10.	Grey Heron	Ardea Cinerea
11.	Purple Heron	Ardea Pururea
12.	White faced whistling Duck	Dendrocygna Viduata
13.	Osprey	Pandion haliaetus
14.	African Harrier Hawk	Polyboroides typus
15.	Pied Crow	Corvus Albus

Bolong Fenyo Community Wildlife Reserve

16.	Hooded Vulture	Necrosyrtes Monachus
17.	Red Necked Falcon	Falco Chicquera
18.	Double Spurred Francolin	Francolinus bicalcaratus
19.	Spur Winged Plover	Vanellus Spinosus
20.	Wattle Plover	Vanellus Senegallus
21.	Grey Plover	Pluvialis Squatarola
22.	Ringed Plover	Charadrius Hiaticula
23.	Whimbrel	Numenius Phaeopus
24.	Common Green Shank	Tringa Nebularia
25.	Common Sandpiper	Actitis Hypoleucos
26.	Black winged stilt	Himantopus Himantopus
27.	Ruddy Turnstone	Arenaria interpres
28.	Grey Headed gull	Larus Grocephalur
29.	Lesser Black Backed gull	Laris Fuscus
30.	Caspian Tern	Sterna Caspia
31.	Royal Tern	Sterna Matima
32.	Sandwich Tern	Sterna Sandvicensis
33.	Little Tern	Sterna Albifrons

Bolong Fenyo Community Wildlife Reserve

34.	Laughing Dove	Streptopelia Senegalensis
35.	Blue Spotted Wood Dove	Turtur Afer
36.	Red Eyed Dove	Streptopelia Semitorquata
37.	Vinaceous Dove	Streptopelia Vinacea
38.	Piapiac	Ptilostomus Afer
39.	Senegal Coucal	Centropus Senegalensis
40.	Diederik Cuckoo	Chrysococcoyx Caprius
41.	Black Wood Hoopoe	Rhinopomastus Aterrimus
42.	Green Wood Hoopoe	Phoeniculus Purpureus
43.	Malachite King Fisher	Alcedo Cristata
44.	Broad Billed Roller	Eurystomus Glaucurus
45.	Blue Bellied Roller	Coracias Cyanogaster
46.	Little Bee-eater	Merops Pusillus
47.	Senegal Parrot	Poicephalus Senegalus
48.	Violet Turaco	Musophaga Violacea
49.	Western Grey Plain Eater	Crinifer Piscator
50.	Yellow Fronted Tinker Bird	Pogoniulus Chrysoconus
51.	Red Billed Horn Bill	Tockus Erythrorhynchus
52.	African Grey Horn Bill	Tockus Nasutus

Bolong Fenyo Community Wildlife Reserve

53.	Grey Wood Pecker	Mesopicos Goertae
54.	Fine Spotted Wood Pecker	Campethera Punctuugera
55.	Crested Lark	Galerida Cristata
56.	Fanti Saw-Wing	Psolidoprocne Obscura
57.	Red Crested Swallow	Thruno Lucida
58.	African Golden Onole	Oriolus Auratus
59.	Fork Tailed Drongo	Dicrurus Adsimilis
60.	Common Bulbul	Pycnonotus Barbatus
61.	Brown Babbler	Turdoides Plebejus
62.	Tawny Flanked Prinia	Prinia Subflava
63.	Green Backed Eremomela	Eremomela Pusilla
64.	Grey Backed Cameroptera	Cameroptera Breachyura
65.	Beautiful Sun Bird	Nectarinia Pulchella
66.	Black Crowned Tchagra	Tchagra Senegala
67.	Yellow Crowned Gonolek	Laniarius Barbarus
68.	White Crested Helmet Shrike	Prionops Plumatus
69.	Greater Blue Eared Glossy Starling	Lamprotornis Chalybaeus
70.	Long Tailed Glossy Starling	Lamprotornis Caudatus

Bolong Fenyo Community Wildlife Reserve

71.	Grey Headed Sparrow	Passer Griseur
72.	Northern Red Bishop	Euplectes Franciscanus
73.	Black Winged Red Bishop	Euplectes Hordeaceus
74.	Village Weaver	Ploceus Cucullatus

CHECKLIST OF BOLONGFENYO ANIMAL SPECIES

NO	NAME	SCIENTIFIC NAME
1	Mudskipper	Porogobius schlegelii
2	The green turtle	Chelonian mydas
3	Fruit bat	Lyssonycteris anagolesis smithii
4	Western red colobus	Piliocolobus badius temminckii
5	Calithrix monkey	Chlorocebus sabaeus
6	Senegal bush baby	Galago senegalensia
7	Bush buck	Tragelaphus s. scriptus
8	Red flanked duiker	Cephalophus rufilatus
9	Clawless otter	Aonyx capensis
10	Pardine genet crested	
11	Serval	
12	porcupine	
13	Gambia mongoose	Mungos gambianus
14	Hyena {spotted}	Crocuta crocuta
15	Sun squirrel	Heliosciurus
16	Ground squirrel	Xerus erythropus
17	Cane rat	Thryonomys swinderianus
18	Gambian giant porch rate	Cricetomys gambianus
19	Hare	Lepus saxatilis/orcytolagus cuniculus
20	African rock	
21	Royal pythons	
22	Puff adder	Bitis a arietans
23	Spitting cobra	Naja nigricollis
24	African bush snake	Philithamnus semivariegatus
25	Black forest cobra	
26	Sand snake	Psammophis sibilans/psammophis rukwae
27	Nile monitor	Varanusn. Niloticus
28	Nile crocodiles	Crocodylus niloticus
29	Leather back	Dermochelys coriacea
30	Red flanked and armetage skink	
31	Skinless and geckoes	
32	Humped back dolphin	Sousa teuzii
33	Bottlenose dolphin	Tursiops truncates
34	Pilot bayde	Globicephala macroohynchus
35	Minke whales	Balaenoptera acutorostrata

Bolong Fenyo Community Wildlife Reserve

CHECKLIST OF BOLONGFENYO PLANTS SPECIES

NO	NAME	SCIENTIFIC NAME
1	Baobab	Adansonia digitata
2	Rhum palm	Borassus aethiopum
3	Ironwood	Prosopis Africana
4	Winterthron	Acacia albida
5	Mohogany	Khaya senegaleensis
6	Ginger bread plum	Parinari macrophylla
7	Silk cotton	Ceiba pentandra
8	African rosewood	Pterocarpus erinaceus
9	Fara	Piliostigma thonning
10	Kobo	Ficus vogelii
11	Soto	Ficus
12	Jallo	Detarium senegalense
13	Kosito	Dialium guineense
14	Soto-kuro	Ficus capensis
15	Mampato	Parinan excelsa
16	Wolo	Terminalia albida
17	Bembofingo	Lannea microcarpa
18	Bembomnso	Lannea velutina
19	Raftia palm	Raphia palma-pinus
20	Oil palm	Elaeis guineense
21	Mimosa	Dychrostachys
22	West African laburnum	Cassia sieberianna
23	Guinea peach	Nauclea latifolia
24	Loust bean	Parokia biglobosa
25	Mandingo kola	Cola cordifolia
26	Black plum	Vitex doniana
27	Kaba	senegalensis
28	Folay	Landolphia heudelafii
29	Cashew	Anacardium occidentale
30	Red mangrove	Rhizophora racemosa
31	White mangrove	Avicenia
32	Thinning polio stigma	Poliostigma
33	Mango	Mangifera indica

Bolong Fenyo Community Wildlife Reserve

STAFF TERMS OF REFERENCES

EXECUTIVE DIRECTOR

He is to coordinator all activities

Have the managerial power with authority to put decisions into effects

Need to be able to analyze a problem, develop a creative solution, and communicate the course of action effectively

To help identify other/new sources of funding/co-funding and give advice to his senior officers how to tap those funding for their project

Should identify training needs for his staffs

They must enforce all policies, procedures and laws

They should develop technical wildlife, business skill such as planning, management accounting and finance

Ensure appropriate infrastructure within budget

Ensure availability of a competent and well motivated staff

Ensure agreed intervention programs are completed to budget and timetables

Be aware of research activities and progress against plan

To ensure effective resource management

Ensure effective long-term sustainable use of natural resource through community base management

Should recommend additional facilities

Responsible for finances and accounts

All the final report shall be submitted to him/her for the final review

The Executive Director shall close the staff registration book at 8.30 in the morning from Monday to Friday

ECO-TOURISM OFFICER

He /she shall act as the assistant director and is to coordinate all field , administrative and logistical support to the director.He is responsible for the Development of the reserve

1. He should make/draw the marketing plan foe tourism activities.
 1. He must have a very good communication skill.
 2. Should promote tourism activities at B/F
 3. He has to track good records of finance/account what goes in and out at eco-tourism activities at B/F.
 4. He should ensure a sustainable use of natural resource through community base management at B/F
 5. Build new strategies and plans, to effectively put those strategies into place.
 6. Seek opportunities foe getting involved locally in national campaigns on fundraising and environmental protection in schools.
 7. Ensure harmonious relationship with tourist.

Bolong Fenyo Community Wildlife Reserve

TERMS OF REFERENCE FOR COMMUNITY WARDEN

Under the supervision of ecotourism officer, the community wardens are responsible for the task of wildlife legislation enforcement and resource protection in and around the protected area and its boundaries through patrols and sensitization. They are expected to undertake firebreak creation and maintenance and periodic wildlife surveys/census along the established transects and continuous data collection. They should also ensure that trails are cleared and cleaned, report damaged park structures (signs, boards, poles etc.) and arrange to replace them. Any other duties assigned by the Director/PMU

SECRETARY

The Administrative Assistant will carry out a number of tasks, including but not limited to:

- Typing of general correspondence, reports, speeches, etc;
- Keeping accurate records of staff contracts, appointments, reports, and proceedings of meetings;
- Answering telephone calls, receiving and sending fax messages for the PMU;
- Receiving all in coming mail, recording and dispatching all out-going correspondences to their respective destination;
- Responsible for all filing of correspondences;
- Arranging schedules of meetings and appointments;
- Overall supervision of office supplies and asset register;
- Coordinate travel/logistics for PMU staff;
- Responsible for all project computers and other office equipments;
- Any other duties assigned by the Project Coordinator.

Qualifications and Duration

The applicant should:

- hold a certificate from a Secretarial School;
- have at least five (5) years working experience in a similar position;
- have effective written and verbal communications skills
- must be computer proficient in a number of software, such as Word, Excel, Publisher, etc...
- have good interpersonal skills and be able to work with minimum supervision;
- be fluent in English;

QUALIFICATIONS REQUIRED

- The minimum qualification for this position is o'level certificate or equivalent with credits in related science subjects.

Bolong Fenyo Community Wildlife Reserve

Financial Assistant

Operating within a computerized environment, the Financial and Accounting Officer will perform the following tasks:

1. Prepare, monitor and control annual budgets:
 - serve as liaison to other implementing entities for all budget matters
 - provide the SMC and the Director and implementing entities with all the information needed to prepare annual budgets based on a specific time line of activities
 - compare the annual budgets presented by implementing entities with the project's initial or updated budget allocations and, if necessary, lead budget arbitration sessions
 - monitor funding agreements signed with donors
2. Process accounting and budget charges, maintain financial, cost and budget accounting, and keep accounting records:
 - provide oversight to ensure proper posting of transactions performed by the operating entities and coordinating unit in the accounting records (commitments, payments, etc.) in relationship with the finance departments of the implementing agencies
 - identify and propose proper posting of the different types of transactions
 - monitor the status of commitments per category and per activity for each donor
 - ensure that accounting ledgers and papers are well maintained
 - receive and classify accounting records from the implementing entities
3. Perform end-of-year closing operations:
 - propose necessary adjustments
 - proceed with closing the accounts at fiscal year end
4. Produce the periodic financial statements and fund reconciliations required by SMC and Donors
 - prepare, stamp, produce and secure approval of these periodic financial statements (monthly, quarterly, six-monthly or annual, depending on the case)
 - prepare financial reports for the project's Financial Monitoring Reports
 - prepare, stamp, produce and secure approval of bank reconciliations and fund reconciliations of the Bank Account
5. Ensure the project's proper cash management:
 - obtain and verify documentary evidence of project expenses and prepare for their settlement
 - monitor budget entries, credit allocations and fund disbursements of the National Counterpart in relation to the implementing agencies
 - prepare a quarterly cash budget
6. Oversee and ensure proper use of the manual of procedures:
 - Oversee adherence of budget implementation to adopted procedures (status of applicant for withdrawal, required authorizations, type of documentary evidence of expenses, mathematical accuracy, availability of funds, commitments, settlements, payments, etc.)
 - note any disparities between projections and results and analyze the causes
 - supervise and control cash monitoring and the use of fuel and office supplies
 - monitor transactions related to staff compensation and payments to the Tax Bureau and social benefit organizations

Bolong Fenyo Community Wildlife Reserve

- reconcile the results of the physical inventory with fixed asset accounts
- 7. Prepare the information and documents needed for audits and financial oversight:
 - prepare a consolidated annual financial report on transactions performed by implementing entities
 - prepare an annual special report on special account(s) performance for each donor
 - Hold a Senior Accountant Diploma (secondary school diploma plus a minimum of four years of advanced training) in accounting and finance, or some other equivalent diploma;
 - Have a minimum of five years of experience in a public utility financial and accounting management position with private accounting or possess experience in handling finance and accounting responsibilities; experience in a World Bank-funded project is a major advantage;
 - Possess good computer skills; experience in using a financial and accounting management software program may be required;
 - Display professional integrity and the ability to coordinate team activities;
 - Have an understanding of human relations.
 - follow through on auditors' recommendations

TERMS OF REFERENCE FOR A COMMUNITY RANGER

Under the supervision of the Community warden, the wildlife ranger co-ordinate the management and protection of park resources and visitors. He/she mobilizes community warden to undertake their data collection to introduce visitors to the park, guide visitors, and controls and monitors the park's resources, applies park laws and policies and attends to visitors. He/she expected to supervise ranger related work activities and to assist the warden in carrying out some of his functions.

1. Responsible for preparing patrol roaster with the conjunction with the ranger for day to day patrolling and writing the patrol reports.
 2. They are responsible for conduction patrols with the patrol leader during the day from 8.00am to 4.00 pm and emergency patrol at night when the need arises.
 3. They also responsible for the clearing maintenance and other duties assigned by the management, in addition assisting in research and data collection.
 4. Power to carry on with wildlife conservation act 1977, section 44, 45, 46, 47 and 48.
- Any other duties assigned by the Directorate/PMU

Bolong Fenyo Community Wildlife Reserve

TERMS OF REFERENCE FOR A DRIVER

The driver shall be the driver to GEPADG/ ICAM project vehicles

Shall driver the Executive Director/field coordinator and staffs and may be the CFTC Technical Assistant

Shall be a careful and well qualified driver as he may driver during the night from (e.g.Boabolon) long distances

He may also drive in neighboring countries

Taking and brining staffs to and from project sites workshops, meeting/outside the project areas

Shall work from 8.30to at least 4.15 pm from Monday to Friday

This driver will be contracted for at least two months to see his performances, if satisfactory

shall be contracted for the rest of the project duration

He may handle the post office key to box 21 to receiving and posting mails

He shall take records e.g the petrol costs at a given time and take proper records of the vehicle

He shall develop good communication skill, morale and good public relations

HE may also act as a messenger and a personal assistant to the Director/field coordinator

He shall also be part of the warden patrol team

He shall supply plants and equipment to the various protected areas

He shall carryout any relevant duties assigned to by the director, staffs and the general body.

WATCHMAN

1. The watchman is in charged to protect and secure all the equipments/materials that are within the premises of the compound.
2. To ensure no materials are remove from its original position until they are told to do so.
3. Shall be able to identify funny visitors or intruder.
4. Shall caution any unfamiliar thing/nose
5. Shall be vigilant.

CLEANER

1. The clean in and outside the office and to collect any papers found on the floor and packed it for further enquiry before throwing it to the rubbish bins.
2. To ensure that all rubbish bins are place in right position at all time.
3. Shall report office every morning from Monday to Friday before staff registration at least 7.00 am.
4. Shall clean the office furniture and equipment.
5. Shall be vigilant and ensure security at the office.