

REPUBLIC OF THE GAMBIA



THE FIFTH (5th) NATIONAL REPORT TO THE CONVENTION OF BIOLOGICAL DIVERSITY © May, 2014

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Convention on
Biological Diversity



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ACRONYMS

ABS	Access and Benefit Sharing
AEWA	African Eurasian Waterbird Agreement
ANRP	Agricultural and Natural Resources Policy
CBD	Convention on Biological Diversity
CDF	Community Development Fund
CFCs	Community Forest Committees
CITES	Convention on trade of Endangered Species
CMS	Convention on Migratory Species
DPWM	Department of Parks and Wildlife
EEZ	Exclusive Economic Zone
EIA	Environment Impact Assessment
GALDEP	Gambia Lowland Development Project
GBMIS	Gambia Biodiversity Management and Institutional Strengthening
GBoS	Gambia Bureau of Statistics
GEAP	Gambia Environment Action Plan
GEF	Global Environment Facility
GOTG	Government of the Gambia
ICAM	Integrated Coastal Area Management
IDB	International Development Bank
IMPAC	International Marine Protected Area Congress
IWRM	Integrated Watershed Resources Management
MAB	Man and Biosphere
MDGs	Millennium Development Goals
MEAs	Multilateral Environment Agreements
MSY	Maximum Sustainable Yields
NAPA	National Adaptation Action Plan
NBR	North Bank Region
NBSAP	National Biodiversity Strategy and Action Plan
Nema	National Environmental Management Act

NARICA	New Africa Rice
NFA	National Forest Assessment
PAs	Protected Areas
PAGE	Programme for Accelerated Growth and Employment
PoWPA	Programme of Work on Protected Areas
PRSP	Poverty Reduction Strategy Papers
SEA	Strategic Environmental Assessment
SLMP	Sustainable Land Management Project
SOER	State of Environment Report
UNDP	United Nation Development Programme
UNFCCC	United Nation Framework Convention on Climate Change
WCR	West Coast Region

EXECUTIVE SUMMARY

The Gambia is a small Sahelian country, bordered by Senegal and extending to the Western Coast of Africa between 13° and 14° N. It covers a total land area of approximately 10,689 sq. km with a length of about 400 km and a width varying between 24-28 km. According to the 2013 National population and Housing Census, The Gambia's population is estimated at 1.8 million people with a population growth rate of 2.8 % per annum (GBoS 2013). The climate of the Gambia is a Sudano-sahelian type of climate, with a short rainy season from June to October and a long dry season lasting from November to May. The average annual rainfall is 900 mm. There has been an average reduction of 27% in the annual average rainfall since 1951. The mean temperature is 25°C. The Gambia has four major landscapes, namely; the floodplain, the colluvial slopes, the lower plateau and the upper plateau, with different soil types. The natural drainage is centered on the River Gambia and its tributaries, namely; Sandougou, Miniminyang, Baobolong, Sofaniama, and the Bintang Bolongs. River Gambia, which is over 1,130 km long, originates from the Fouta Djallon highlands in Guinea.

With its characteristic Sudan Savanna woodland vegetation, The Gambia has the following main ecosystem types: forest ecosystems (close & open woodland ecosystem), agricultural ecosystems (arable and rangeland ecosystems), marine and coastal ecosystems, inland water ecosystems (wetlands) and terrestrial ecosystems (tree/shrub savanna). The Gambia is endowed with a high diversity of plant and animal species. The components of biodiversity embrace the wild fauna and flora and associated ecosystems as well as the domestic species, including plant varieties and land races of domestic animals that have been bred and developed for thousands of years by farmers, as well as species that are dependent on the agricultural systems developed and maintained by humankind.

Introduction

The Gambia is signatory to various regional and international agreements and processes which are related to, or affect biodiversity. In addition to the CBD, others include the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Convention on Wetlands of International Importance Especially as Water Fowl Habitat (Ramsar).

The Gambia signed the CBD in 1992 and ratified it in 1994 making it the 63rd Party. The objectives of the CBD include the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising out of the use of genetic resources. To fulfil one of the key obligations for Parties under Article 6 of the Convention, Gambia prepared the National Biodiversity Strategy and Action Plan (NBSAP) in 1999 which is essentially the main national policy and basis for biodiversity conservation and for the implementation of the Convention at the national level.

Regional agreements and processes to which the country is signatory include the Convention for the Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention), and the PRCM¹ process under both of which the country receives assistance to build its capacity in Protected Area management including national parks and Marine Protected Areas (MPAs).

¹The PRCM is French acronym for Regional Coastal and Marine Conservation Programme. It is a sub-regional process aimed at sustainable management of marine and coastal areas in West Africa. The process involves the Gambia, Senegal, Mauritania, Guinea Bissau, Republic of Guinea, and Sierra Leone whose Ministries of Environment and Fisheries signed an MOU for cooperation with four international NGOs based in Dakar, Senegal (IUCN-International Union for the Conservation of Nature, FIBA- Fondation International de Banc d'Arguin, World Wildlife Fund (WWF), and Wetlands International) all of whose operational mandate involves sustainable management of coastal resources.

The comparative strength of these NGOs is used to assist the member countries to implement an agreed sub regional work programme, and in the process build the capacity of national experts in protected area management including MPAs.

Legislation (Laws and Regulations)

The environmental policy measures are supported by various biodiversity-related sectoral laws; for example, the National Environment Management Act, (NEMA) 1994 ensures the integration of environmental considerations in all development strategies and related activities; the Fisheries Act, 2007 and its attendant Regulations (2008) have provisions covering efficient management of the artisanal and industrial fisheries as well as the development of aquaculture; the Biodiversity and Wildlife Act, 2000 under the purview of the DPWM is currently being revised to further enhance the implementation of the NBSAP. The Forest Act, 1998 and Regulations involve the communities in forest management and protection by legally requiring them to participate in fire prevention and participative in forest management activities.

It will be noted that the Biodiversity Policy and Act are being implemented within the context of the overall framework of the Agriculture and Natural Resources (ANR) Policy which encompasses the water and other natural resource sectors (forestry, fisheries, livestock, parks and wildlife, and the environment) each of which is implementing its own sectoral policy. Together, these different stakeholders interact to address the issue(s) at hand. This essentially means that harmonization and coordination of these various interrelated policies must be achieved to enhance coherence and complementarity in their implementation. In this regard, and to address conflicts and inter sectoral policy inconsistencies the ANR Working Group (ANRWG) serves as the clearing house mechanism and a policy conflict resolution forum. This Working Group is co-chaired by the Permanent Secretaries of the Ministries of Agriculture, Fisheries and Water Resources, and Forestry and the Environment.

Government allocation of Financial Resources to DPWM

The DPWM is appropriated financial resources from the Ministry of Finance to cover expenses related to salaries, wages and other personnel expenditure, as well as goods and services, and indeed all other aspects relating to the operations of the Department.

These approvals are done on a yearly basis, allocations paid out monthly or quarterly to the department. However, the rate and amount of disbursement from the Ministry of Finance, and budget execution by DPWM is usually dependent upon the revenue inflows of government in the course of the year. In this regard financial receipts by DPWM can be unpredictable as amounts paid out could sometimes be less than budgeted, and consequently expenses are lower than planned. This therefore calls for the need for the DPWM to seek other sources of revenue generation and to even retain a portion of the revenue generated to plough back into parks management to supplement the subvention from the government.

Figure 1 indicates the total amount approved against the total disbursed and spent for 2007-2012. Overall, percentage utilization of the budget per year has been impressive, total budget execution of all categories ranging from 73 per cent in 2010 to 95 per cent in 2012 (Fig 2).

Fig 1: Government Allocation of Financial Resources to DPWM

YEAR		APPROVED BUDGET	EXPENSE	% SPENT
2007	Salaries, wages & other personnel expenditure	1,804,539.00	1,517,261.28	84.1
	Goods & Services	325,050.00	274,606.15	84.5
	Park Management	483,100.00	409,600.00	84.8
	Development Budget	723,000.00	525,000.00	72.6
	Total	3,335,689.00	2,726,467.43	81.7
2008	Salaries, wages & other personnel expenditure	2,223,120.29	2,146,067.43	96.5
	Goods & Services	381,300.00	378,191.93	99.2
	Park Management	603,100.00	402,920.00	66.8
	Development Budget	1,235,000.00	530,000.00	42.9
	Total	4,442,520.29	3,457,179.36	77.8
2009	Salaries, wages & other personnel expenditure	2,938,297.75	2,771,704.62	94.3

	Goods & Services	501,300.00	467,939.80	93.3
	Park Management	673,100.00	409,100.00	60.8
	Development Budget	1,320,000.00	967,780.00	73.3
	Total	5,432,697.75	4,616,524.42	85.0
2010	Salaries, wages & other personnel expenditure	3,842,537.33	2,782,355.29	72.4
	Goods & Services	731,300.00	681,260.22	93.2
	Park Management	815,000.00	687,440.00	84.3
	Development Budget	1,079,000.00	592,750.00	54.9
	Total	6,467,837.33	4,743,805.51	73.3
2011	Salaries, wages & other personnel expenditure	3,222,444.00	2,934,520.10	91.1
	Goods & Services	656,300.00	645,199.98	98.3
	Park Management	660,072.00	657,027.00	99.5
	Development Budget	779,000.00	547,575.00	70.3
	Total	5,317,816.00	4,784,322.08	90.0
2012	Salaries, wages & other personnel expenditure	3,075,179.00	2,944,129.18	95.7
	Goods & Services	638,000.00	626,240.00	98.2
	Park Management	630,000.00	550,360.00	87.4
	Development Budget	729,000.00	703,400.00	96.5
	Total	5,072,179.00	4,824,129.18	95.1

Source: IFMIS

In Fig 1. Government allocations to DPWM for years 2007 to 2012 broken down into categories are summarized. Annual approvals for the sector increased significantly from D3.3 million in 2007 to D4.4 million, D5.4 million, D6.4 million in 2008, 2009, and 2010 respectively (percentage increases of 33, 18, 16 respectively) indicating an apparent higher level of commitment from the government towards the wildlife sector. Allocation however fell below the previous year's level to D5.3 million and D5.0 million in 2011 and 2012 respectively (percentage decline of -21, and -5 respectively). Correspondingly budget execution followed a similar pattern (Fig 1).

Fig 2 indicates the level of expenditure in actual park management (e.g. fire belt clearing, infrastructure, trails, waterholes, photo hides, monitoring and policing to stem illegal activities, etc.). For example in 2007 for actual park management a total of D934, 000 (34.3 per cent of the total DPWM expenditure) was spent compared to D2.7 million (65.7 per cent) which accounted for salaries, wages, allowances, other personnel expenses, goods and services. Between 2007-2012 the highest budget execution rate in actual park management (including the Development budget) was attained in 2007, (34 per cent) the range being between 25.2 to 34.3 percent. This means that over all, the total expenditure for actual park management and development averaged only 28.3 per cent of the executed budget. Clearly, this is insufficient to manage eight protected areas.

Fig 2: Percentage of Total Budget Used for Park Management & Development

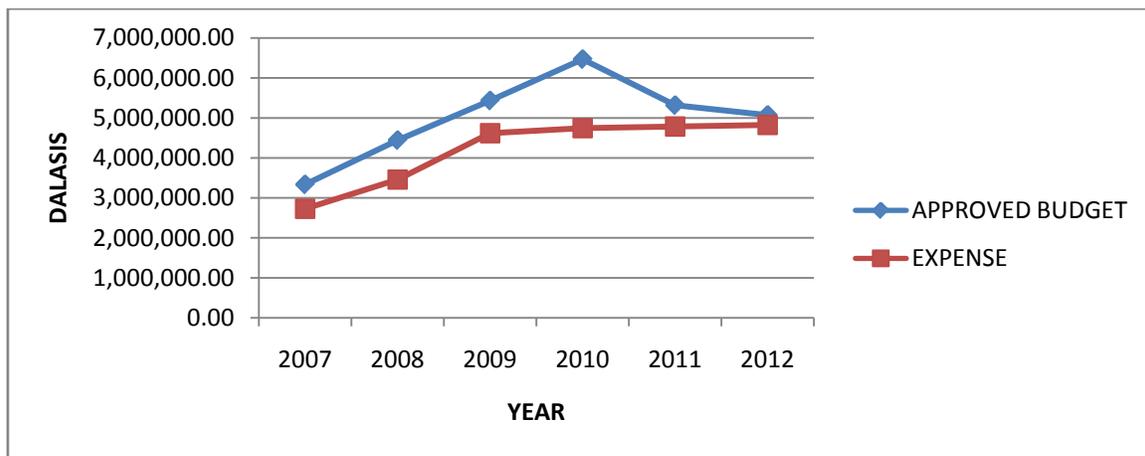
Year	Total Expenditure	Amount Spent on Park Management & Development	% Spent
2007	2,726,467	934,600	34.3
2008	3,457,179	932,920	27.0
2009	4,616,524	1,376,880	30.0
2010	4,743,805	1,280,190	27.0
2011	4,784,322	1,204,602	25.2
2012	4,824,129	1,253,760	26.0

Source: IFMIS

Timing of payments to the Department is another important aspect that needs to be considered, because it could determine the timing of the activity, as certain activities conducted at the Parks are time bound, and failure to perform them at the appropriate time could defeat the purpose of the entire exercise. For example, if during the time for fire belt clearing (just after the rains) money is not available, bush fires could ravage vegetation close to the park boundary and thus burn down trees inside the park and also what vegetation had grown around the boundary during the previous rainy season.

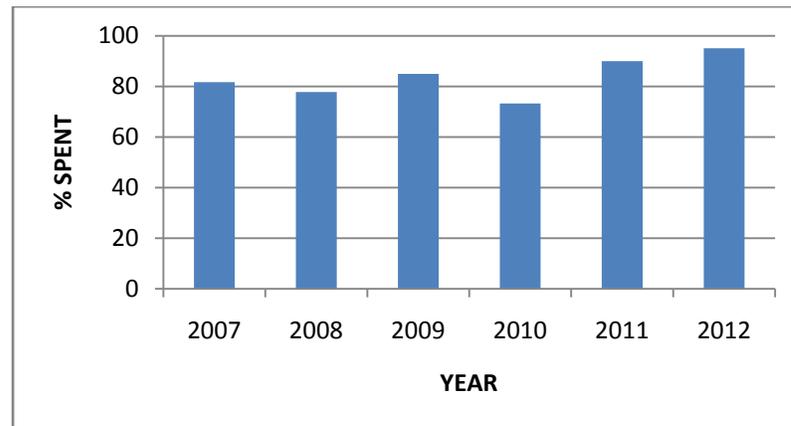
Insufficient financing and irregular timing of disbursements could very well impact negatively on programme implementation at DPWM, but equally important is the level and capacity of the human resources which could also affect rate of programme implementation and budget execution. The current staff enrolment at the DPWM is 160 of which only two are professionals with a Master’s Degree, but are essentially involved in administration and therefore may not always take part in technical assignments. The other technical staff includes 4 Diploma holders, 10 trained to certificate level on natural resources management, and the rest are armatures. Thus, based on its human resource requirement estimate of *at least 200 by 2018, (Results Framework)* the current staffing level is inadequate in both numbers and skills. **(Recommendation)**It will therefore be strongly recommended that concerted effort be put into capacity building to develop the skills of the staff to manage the two Divisions (Administration and Conservation) and Units of the Department (Research and Development, Ecotourism, Education and Extension, Park management, and Surveillance).**(Results Framework)**

Fig 3:Approved Annual Budget /Total Expenditure (2007-2012)



Source: IFMIS

Fig 4: Percentage of Annual Budget Spent (2007-2012)



Source: IFMIS

Donor Funded Projects and Activities

Protected areas in the country are being funded from a variety of other sources, apart from the government; they include multilateral and bilateral sources. Table 12 indicates the projects and activities funded through various bilateral and multilateral processes in the past decade and a half. These funds are basically only for project related activities that enhance the capacity of the system, but do not include wages and salaries of staff, which is the responsibility of Government. Therefore, each funding is tied closely to the work programme of the funding source or agency in collaboration with staff of DPWM, and this essentially has determined the achievements of the DPWM over the years; about US \$2.4 million were received from GEF and 804,000 Euros were received from various partners working with DPWM between 1996 to date to implement various projects aimed at achieving specific outputs and outcomes. Clearly, these amounts are beyond the capacity of the government especially in the face of so much competition from other deserving sectors such as education and health as indicated in the Programme for Accelerated Growth and Employment (PAGE 2012-2015), the main national policy. Given the above, it is clear that for the foreseeable future sustainable management of the protected areas in the country will be driven by bilateral and multilateral assistance programmes.

International Conventions and Treaties

Although small in size, The Gambia harbours globally significant biodiversity as well as a wealth of terrestrial, coastal, marine and wetland habitats and species of local, national, regional and global significance. The coastal and marine environment is defined in the Gambian context as not only those areas that border the Atlantic but also those with brackish water that border the River Gambia, extending 200km inland. It is one of the areas identified as of particular importance in the the National Biodiversity Strategy and Action Plan (NBSAP) and Gambia Environment Action Plan (GEAP). The country is rich in–natural resource with particularly high biodiversity of national, regional and global environmental significance.

Currently there are 8 wildlife Protected Areas, occupying a total area of 71,526 hectares, approximately 6.3% of Gambia's total surface area. Only 0.16% of the terrestrial and inland water is protected while 7.4% of the marine and coastal areas are under formal protection with the goal being set to increase this area to 10 percent by 2015, Seven Protected areas are under the mandate of the Department of Parks and Wildlife (DPWM), and is complemented by a community managed reserve, Bolong Fenyo, as well as a series of forest reserves managed by the Department of Forestry together with local communities.

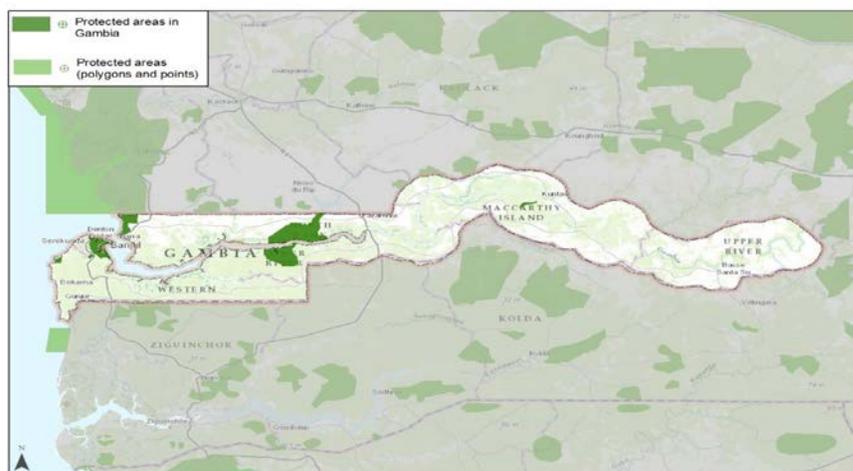


Fig 5. Map of Protected Areas of the Gambia

The protected area network is representative of the principal habitats and ecosystems found in the country, and houses several habitat types and rare and endangered species of global importance. Habitat types within the protected area network include mangrove ecosystems, tidal zones, as well as guinea savannah and dry deciduous woodlands. Mangrove and tidal areas serve as important spawning and nursery grounds for more than 114 species of coastal and marine fish, providing nesting and feeding habitats for endangered and threatened species such as migratory birds (East Atlantic Flyway), Audouin's Gull (globally endangered), dolphins (including the Atlantic Humpback dolphin which is endemic to the Atlantic Ocean's African coast), sharks, marine turtles (leatherback, loggerhead and green), the West African manatee, West African dwarf crocodile, West African red colobus, clawless otter, hippopotamus, and others. In addition, more than 576 species of birds have been identified in the Gambia among which 10% are migratory. Three of the Gambia's protected areas are recognized as Wetlands of International importance under the RAMSAR convention: Tanbi Wetland National Park, Niimi National Park and Bao Bolong Wetland Reserve. Six are recognised by the Birdlife International Partnership as Important Bird Areas: Tanji, Tanbi, Abuko, Niimi, Bao Bolong and Kiang West², of which both Tanji and Niimi regularly surpass the 1 percent criteria for Royal terns, Caspian terns, and others.

The Gambia's coastal and marine areas are under increasing pressure. A large proportion of the country's population resides in coastal areas and depends upon them for their livelihoods. Population growth and rural-urban drift—a result of disrupted and unpredictable rainfall patterns and land degradation in the hinterland exerts tremendous pressure on coastal and marine resources. Anthropogenic pressures arising from subsistence and small-scale economic exploitation include sand mining, fishing, clearing of forest and mangroves for fish-smoking, use as domestic fuel, arable crop production, and animal rearing. There is also evidence of significant pressure on species of global and regional concern such as nesting and migratory birds and marine turtles, the eggs of

which are frequently collected; sharks harvested for their fins; and manatees hunted for meat, as well as growing conflicts between the population and species such as hippopotamus as the two are increasingly forced to depend upon the same resources for survival. The coast also is the primary tourism attraction of The Gambia, which alongside other economic development initiatives is increasing development pressure in this zone.

There is strong national commitment to protecting the country's natural resources. The Department of Parks and Wildlife Management (DPWM) is the government agency responsible for ensuring the management of the country's protected area network as well as for the conservation of its biodiversity both within and outside this network. While, DPWM is expected to take the lead in ensuring the application of existing policies and legislation and to promote initiatives on the ground leading to sustainable management and use of biodiversity, it is recognised that it cannot do this alone. DPWM hence works in close collaboration with other government agencies, NGOs and civil society partners. However DPWM's capacity to capitalize on the opportunities provided by this broad network and to leverage resources (both human and financial) for the promotion of biodiversity development is severely constrained by the Department's internal structural and functional challenges, such as weak staff capacity and implementation experience as well as by limited scientific and technical knowledge and insufficient funding. The land use areas have been obtained from a combination of two sources: the estimation of the classified ASTER images and the field survey. The Gambia has a total area of 1,130,000 hectares (SOER 2010). According to the National Forest Assessment (NFA) results,(2010) the forest area of The Gambia is composed of 26.6% Forest, 10.9% Other Wooded Land, 52.1% Other Land and 10.5% Inland Water as shown in table below.

Major Land Use	Area ('000 ha)	% of total area	Error % (se)
Forest	300	26.6	11.4
Other Wooded Land	123	10.9	18.2
Other Land	589	52.1	6.5
Inland Water	118	10.5	22.7

Fig 6. Land use classes

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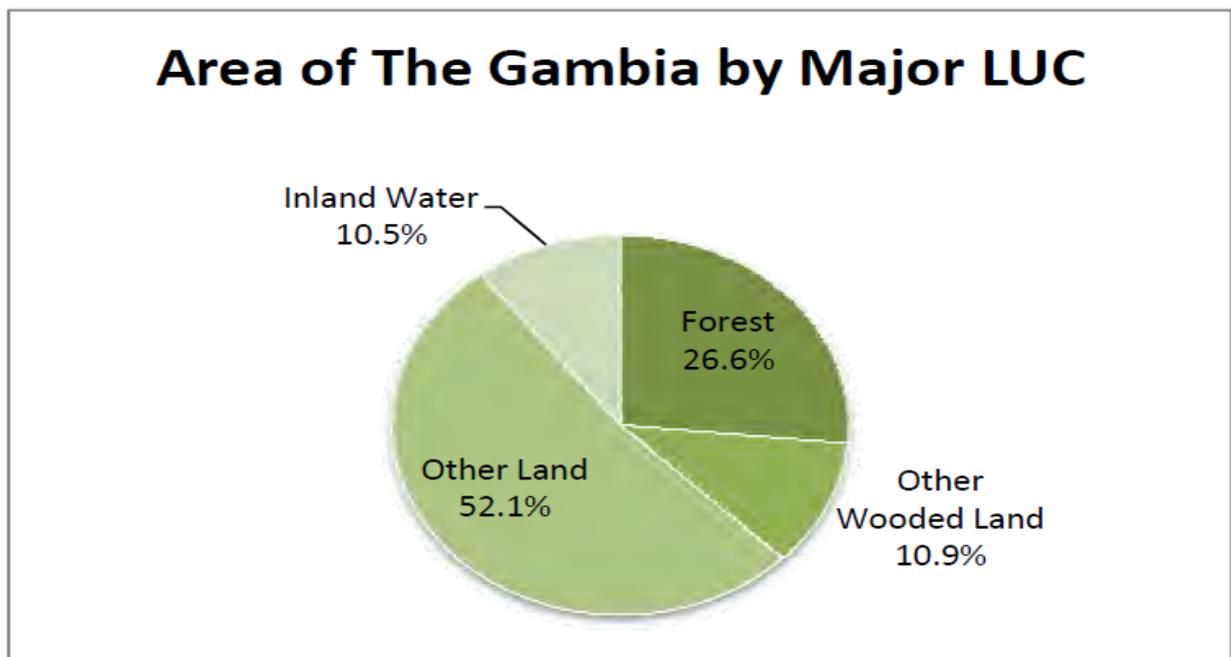


Fig 7. Major Land Use Cover

PART I: AN UPDATE ON BIODIVERSITY STATUS, TRENDS, AND THREATS AND IMPLICATIONS FOR HUMAN WELL-BEING

The Gambia is a small Sahelian country, rich in plants but fragile animal population. The country lies along the boundary of two vegetation types, the Southern Guinea and Sudan Savanna forest. The Southern Guinea Savanna is located along the coast of the Atlantic Ocean (Western Region of the country) and is characterized by open woodland with tall grasses up to 5 meters. The trees and shrubs include broad leaf species and form a two storey canopy. The Sudan Savanna occupies the drier areas in the eastern and northern parts of the country, with lower grasses and trees not exceeding 15 meters, most of which are small leaved and thorn bearing. Both types of vegetation are the outcome of long established human engineered disturbances such as bush fallow, cultivation, bush fires and overgrazing.

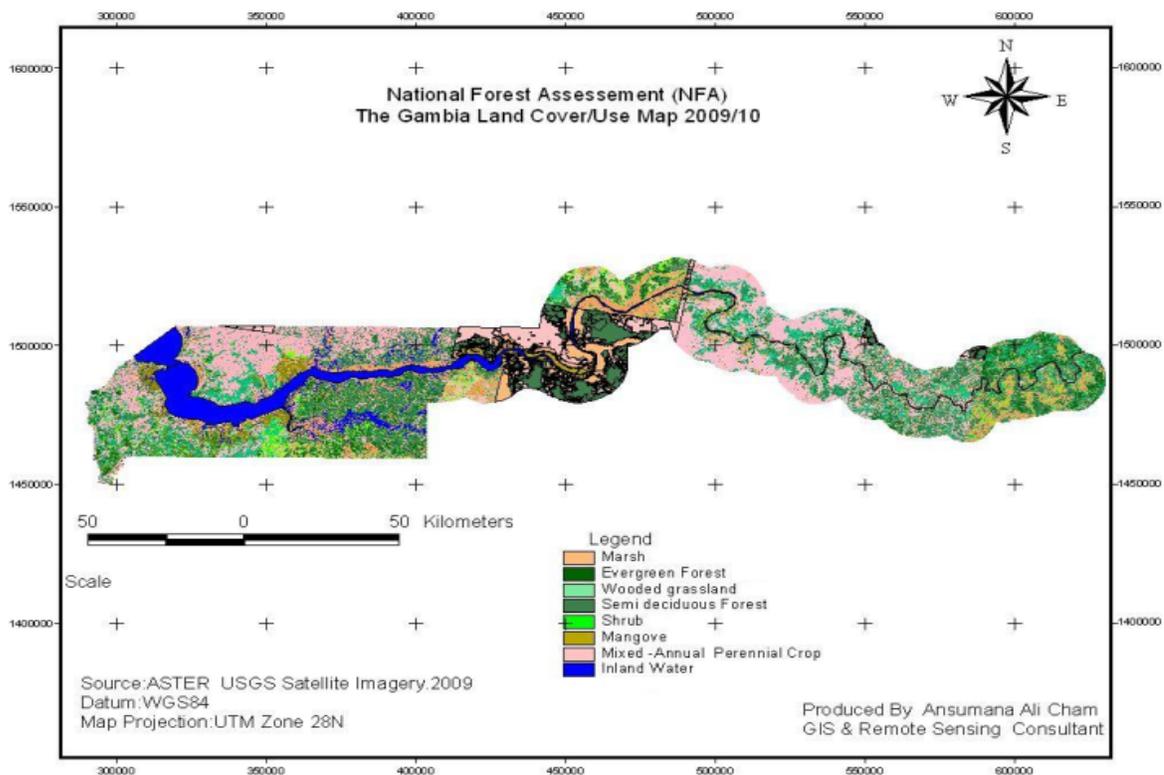


Fig 8: Vegetation Map of the Gambia

The country has four major landscapes, namely, the floodplain, colluvial slopes, the lower plateau and upper plateau, with different soil types. With characteristic Sudan savanna woodland vegetation, The Gambia has the following ecosystem types; Forest ecosystem (close and open woodlands), agricultural ecosystems (arable and rangeland ecosystems), marine and coastal ecosystems, inland water ecosystems (wetlands) and terrestrial ecosystems (tree/shrub savanna). The impressive diversity associated with these ecosystems is due to combination of its geographical position and the presence of River Gambia on which the country is centred.

The majority of Gambians depend directly on biological diversity for social, ecological, economical, cultural and spiritual purposes. The current situation of biodiversity goods and produces in the Gambia indicates that the resources are declining and the situation is likely to worsen, unless appropriate regulatory and management measures are undertaken. Fish is an important source of cheap protein to the population and is believed to have potential for greater contribution in addressing the country's food security policy objective and the economy in general.

1. MAJOR CHANGES IN THE STATUS AND TRENDS OF BIODIVERSITY IN THE GAMBIA

The number of species recorded in The Gambia as of date comprises of 3, 339 from seventeen taxonomic groups. The Gambia is endowed with 1,005 flowering plants, 126 species of mammals, 627 species of fishes, 566 of birds, 784 species of insects and 77 species of reptiles (Linda and Creg 2005). However no significant changes took place but bird species such as Bridle Tern, and the Sand Boa (snake) were recorded. According to the 2014 Water fowl Census, the population and distribution trends of waterbirds indicate a serious decline due to over flooding of wetlands resulting to subsequent invasion of aquatic species such as phragmites and typhae species. Due to the absence of large predators there is an increase in the number of hippos, warthogs, baboons and monkeys that eventually led to series of reported human wildlife conflicts cases. In response to this, the Government of the Gambia has constructed barriers in some rice growing areas and there are future plans to extend these barriers.

In addition, there are plans to establish 10 more community wildlife Protected Areas in affected communities to create suitable habitats. Series of assessments to determine the distribution and abundance of some key species have been carried out in protected areas but there is need for more capacity building and biodiversity monitoring with focus on other species including endangered and threatened species within the Gambia. From 2005 to date, preliminary baseline data on manatees, sea turtles and Dolphin along the Atlantic Coast of The Gambia was collected. The information collected so far is not sufficient to indicate trends in the population of these species.

There are however attempts to continue the existing monitoring programs on biological diversity, forest ecosystems (close and open woodland), agricultural ecosystems (arable and rangeland), marine and coastal ecosystems, inland water ecosystems and terrestrial ecosystems. The marine and coastal complex of the Gambia is considered as part of the globally identified biodiversity hotspots of North West African Seaboard. Monitoring of wetlands that covers almost 20% of the total surface area, has revealed the global significance of almost all the sample sites as habitat for numerous species of rare nesting birds such as White-backed Night Heron, Pel's Fishing Owls, and the Fin Foot. Bijol Islands provided the only known breeding site in the Gambia for Grey headed gulls, Royal terns, Caspian terns, Reef herons and Bridle tern. However the islands are no longer suitable for breeding of Grey headed gulls and reef herons due to sea level rise which has subsequently wiped out the vegetation such as morning glory, casaurina and baobab tree. This area is also no longer suitable for breeding turtles since it is frequently over flooded.

The degree of threat varies in different ecosystems and depends on the intensity of anthropogenic factors they are exposed to. In this respect, forest vegetation is exposed to widespread exploitation of forest resources for timber production and fuel wood. Urbanization, tourism and related industrial developments along the Atlantic Coast of The Gambia have removed large areas of coastal vegetation, the habitat for many species that depend on coastal and marine biodiversity such as marine turtles, vervet

monkeys etc. Poor agricultural methods and practices coupled with inadequate land use planning have considerably degraded agricultural biodiversity. Coastal erosion is also a serious problem affecting all the islands especially Bijol, Kunta Kinteh (James Island) and Jinack Islands.

1.1. Forest biodiversity

The terrestrial surface of the Gambia in the past was covered by dense forest, estimated at 43% of the total land area of the country, National Forest Inventory (2009). Until now it is confirmed that the country lost over 13 species of mammals and an unknown number of floral species. Human population growth coupled with decline in annual average rainfall of 25-30%. , high consumption rate and technology used continue to be a major driving force for environmental and natural resource degradation. Results of the NFA indicate that, regardless of the type, the great majority of the forest is Secondary Young (more than 50%), while smaller fractions of areas (around 30%, but more than 40% for Semi deciduous) is Secondary Mature. Primary forest is constituted about 11% of the area of Evergreen forest but only in smaller percentages in other forest types. This is the result of heavy exploitation in the past for charcoal and timber production.

In the 1980s the Gambia government embarked on a major process of transformation of its traditional forest management approach to a more sustainable and adaptable forest management system through technical support from the Federal Republic of Germany. A natural forest management model was piloted in some forest parks (State owned) which culminated to the introduction of community forestry and other participatory forest management approaches. These efforts were designed to enhance protection and management of the remaining forest. A major turning point during this time was the elaboration of the first comprehensive forest policy in 1995 which was oriented towards participatory forest management. According to 2009/2010 NFA, 222,000 ha are declared as forest reserves, 40,000 ha as forest parks and 18,000 ha community forest (Guenther, M& E report 2004 to 2006).

1.2. Agricultural biodiversity

Agriculture, being the backbone of the Gambian Economy, is the most important activity supported by government and occupies nearly 70% of the active population. The decline in crop yield such as groundnuts, cotton, sesame and others, constitute serious reduction in productivity. Some crops have had their diversity enhanced as a result of introduction of other varieties from outside the country such as NERICA. For livestock, some cattle breeds are on the decline. The West African short horn cattle which used to constitute about 80% of the national cattle population in the 1990s now constitutes about 47% of the national cattle herd. Poor soil fertility, habitat destruction/degradation, reduced rainfall, drought, disasters/flooding of agricultural fields, animal diseases, water and animal feed shortages etc are responsible for the decline in productivity and cattle population.

1.3. Fisheries Biodiversity

The Gambia has an 80 km long coastline and an Exclusive Economic Zone (EEZ) extending 200 nautical miles from the low water mark. Fisheries resources are provided from two sources, the river covering an area of 2,000 km² and the ocean covering the continental shelf to an area of 5,000 km². The estimated total biomass of demersal and pelagic fish resources in Gambian waters is as follows: Demersals 22,000 tons and Pelagics 156,000 tons giving a total figure of 178,000 tons (Fridtjof Nansen, 1995). The total fish potential from the maritime fisheries is estimated at about 88,000 tons with pelagic and demersal fish resources constituting 78% and 21% respectively. Total annual fish production is around 38,000 tons in 1996, clearly indicating a surplus potential. Information on the size of the river fish resources and annual fish landings from the river fisheries are not available. Certain fish species, such as the lobster (*Palinurus* spp), shark, catfish (*Arius heudeloti*) and the white grouper (*Epinephelus aethiops*) are threatened as a result of unsound human exploitation strategies. Based on the current production levels, there is considerable scope for exploiting the marine pelagic fisheries and aquaculture. In contrast, there is great need for tighter and more effective control of the threatened

demersal resources. Wetlands, which include marine, coastal, inland waters, seasonal fresh water ponds/marshes are distributed country-wide.

1.4. Coastal & Marine Biodiversity

✓ Water birds

More than one hundred and nineteen species of migratory water birds exist in the country. The first quarter of the year is an important moment for birding and monitoring of the abundance, distribution and occurrence in important wetlands around the country. The sahalian upwelling Marine eco-region is an important area for birds, including resident and migrant species, such as the lesser Black back Gull, Great Cormorant, Sanderlings, small plovers (eg Kittlitzs, Ringed plover, Little Ringed plover, Kintish plover, white fronted sand plover). Royal Tern, Caspian Tern, Audoin's gull, Grey headed Gull, Slender billed Gull, Kelp Gull, Osprey, Grey Plover, Ruddy Turnstone, Bar tailed Godwit, Black tailed Godwit, Bridled Tern, Reef Heron, Grey Heron, Great White Pelican. Wintering birds migrating from Europe and Asia use the area as a staging post, nesting and feeding grounds. The Bijol islands known as the lone breeding ground of terns and gulls, is reducing in size due to sea level rise. This situation is very alarming and called for urgent action



Fig 9: Breeding colony of royal terns on Bijol Islands

✓ Marine turtles

Marine turtles occur along the coastal stretches from Niumi up to Allahein River around Kartong further south on the border with Cassamance. Five species were confirmed (Leatherback, loggerhead, Green, hawksbill, and olive Ridley) to be nesting on the beaches and feeding offshore, and are classified as threatened because of coastal erosion, tourism and infrastructural development. A status study and a three year monitoring programme on the marine turtles in the Gambia were fully implemented by ICAM (2009-2011) II projects.

✓ Mangrove forests

The coastal area of the Gambia is a suitable estuarine zone sheltering several mangrove hot spots. These habitats include Brufut Wood, DuaDula to Kartong Point, Kartong Point to Allahein river mouth, Oyster Creek mangrove swamp to Mandinari Point, River Kakima Delta-Kachuma Forest, Solifor Point, Tanji Bird Reserve, Toll Point to Cape Creek and Tujereng Lagoons. Only four of these habitats: Brufut Wood, Oyster Creek mangrove swamp to Mandinari Point, Tanji Bird Reserve and Toll Point to Cape Creek are protected. Five protected areas: Bolong Fenyo Community Reserve, Bijilo Forest Park, Niumi National Park, Tanbi Wetlands National Park and Tanji and Bijol Islands Bird Reserve (previously known as Tanji Bird Reserve), are situated in the coastal and marine area. Six of the seven species of mangroves found in West Africa occur in The Gambia and have been recorded. These include *Aviceniaafricana*, *Conocarpus erectus*, *Lagunculariaracemosa*, *Rhizophoraharrisonii*, *Rhizophora mangle* and *Rhizophoraracemosa*. Despite their ecological significance, the coastal and marine areas of The Gambia are threatened by both natural and anthropogenic factors. Natural threats include sea level rise and wave action. Anthropogenic threats are mainly the results of a large proportion of the population being concentrated in the coastal and marine areas. This has resulted in increased pressure on natural resources. Anthropogenic threats include uncontrolled sand/gravel mining, mangrove cutting, random destructive methods of shrimp fishing and oyster harvesting, contamination of marine ecosystems by domestic and industrial waste and solid waste disposal.



Fig 10. Mangrove planting in Bintang Bolong 2011

2. MAIN THREATS TO IMPORTANT BIODIVERSITY COMPONENTS, AND THE UNDERLYING DRIVERS OR CAUSES OF THESE THREATS:

The natural resources base of The Gambia has been subjected to a wide variety of adverse human-induced impacts. Consequently, the resources have degraded considerably to their present undesirable state. The three most persistent threats on protected area resources (National Parks and Nature reserves) includes logging, infrastructural developments and land conversion. Demand for timber and non timber products from protected areas are high. Most of the protected area surroundings are being degraded. Road construction and other infrastructural developments to some extent have caused major disruption in the process and functions of key ecosystems such as wetlands. Annual burning of the forest presents a major threat to biological resources both within and outside protected areas. Non-sustainable utilization of natural resources has been in existence since time immemorial as a result of religious and cultural beliefs.

The wrong perception of natural resources as free goods for the poor and resources for the commons generally, that are replenished by God, has proved to become a catalyst for continued overexploitation, posing serious challenges and threats to biodiversity in a fast growing nation like the Gambia. Until now conservation of critical and unique entities remains an unwelcomed affair. Conservation is still faced with the challenges of increasing demand for environmental goods and services such as food, water, housing materials and land, just to name but a few. In the absence of any significant improvement in livelihood of many rural Gambians, continued exploitation of the natural resource base with the current population growth rates becomes highly inevitable. Non sustainable utilization practices including mangrove cutting as an alternative for fuel wood in much of the Greater Banjul area and for fencing and roofing purposes in the North Bank Region points to a grim future for biodiversity and its dependent human populations. Unregulated and illegal hunting practices are common throughout the entire country.

Destructive fishing practices in its various forms are common in the Greater Banjul Area and beyond to the lower reaches of the River Gambia and the rest of the country. Illegal harvesting of thatch grasses and the cutting down of tree branches to collect wild fruits is a common non-sustainable method of natural resource utilization, a practice often perpetuated by cross border poachers from neighbours adjacent to Baobolon Wetland Reserve in the North Bank (Management report 2007). Shifting cultivation and itinerant farming practices that enable a sizeable population to establish ownership over every single strip of land leads to further fragmentation of wildlife habitats and destruction of migratory corridors. Illegal logging of timber and fuel wood is rampant in the Fonis, Jarras, Kombos, Upper River Region (URR) and the Kiang West area. Industrial and household waste dumping into wetlands of Tanbi National Park, Tanji Bird Reserve and Kotu Creek is of serious concern. Continued erosion along the Atlantic coast has been attributed to numerous illegal sand mining activities in the areas of Kartong and Bijilo.

Current anecdotal report indicates occurrence of sand mining at Mandinari, where mining is not allowed. Unregulated charcoal burning activities in Kombo East around the villages of Tubakuta, Ommorto, and Giboro demonstrate the increase dependency on natural resources by the population for their livelihood. Land tenure rights and the demand for land outside traditional farming areas are also steadily leading to massive cutting down of mangroves to cultivate rice in the North Bank Region. Local level intervention to restore rice ecologies through the construction of non-environmentally friendly anti-salt dams in the region have resulted into the abandoning of potential rice growing zones in areas such as Farafeni, Kosemar, FoniJarrol etc.

Over the past 3 decades, biological resources have been the subject of misuse and overexploitation by man. Recent population trend accelerates and deepened the process of overexploitation and consequently, the degradation of natural resources in the Gambia. With a fast growing population, the demand for sustained food production system, to provide shelter, water, clothing and better education compelled many poor rural and urban dwellers to venture into extractive harvesting methods that only further constrained future livelihood potential for the poor. The daily demand for fuel wood, for construction material and for income clearly underpinned the increase in illegal hunting, fishing, harvesting of wild fruits for food and medicine, among other non-sustainable practices. Proliferation of “Chain Saw Machines” further advances human ability to destroy indigenous woody tree species such as *Khayasenegalensis*, *Pterocarpuserinaceus*, *Cordylapinnata*, *Prosopisafricana*, *Terminaliamacroptera*, *Diosphyrumespiliformis*, *Danieliaoliveri* in many parts of the Gambia. Specific threats of human origin to biodiversity conservation and sustainable use are summarized as below.

2.1 Forest and agricultural farming

Agricultural productions system employed in crop farming consist of intensive land used type, characterized by low level of input. Shifting cultivation is still widely practiced in The Gambia, even though fallow periods have considerably reduced as land becomes scarce in most farming communities. The compounding effect of high population

pressure and the scarcity of land have forced farmers to intensively cultivate a piece of land year after year. This exhausts the soil nutrients and ultimately leads to decline in crop yields. Land placed under continuous cultivation further becomes eroded with the eroded materials transported to low land areas resulting to sedimentation. With the recent introduction of fast growing upland rice in pursuit of food self-sufficiency policy compounds the continuing threats of agricultural activities on biodiversity.

2.2 Bush Burning:

During the long Gambian dry season, bush fires are a common feature of the rural landscape. Bush fires are major threat to species diversity. According to estimates, at least 80% of the standing biomass is consumed by fires in a given year (Forster, 1983). The inability to regulate and control wild forest fires are influenced by persistent old-fashioned policies being pursued which completely lack clear-cut measures. There is an urgent need for a new policy that recognizes and adapts current thinking and practices as relates to early-dry-season control burning that has proven successful in Niokolo koba National Park, and in the Kiang West National Park both in Senegal and the Gambia.

2.3. Overgrazing:

The Gambia has a high livestock population with high stocking density. Livestock are reared on an extensive free range system in open grasslands and in rangelands. Due to the high stocking density and the incidence of annual bush fires which consumes most of the feed resources, there is always a scarcity of livestock feed during the dry months of the year. The convergence and concentration of livestock in and around isolated pockets of remaining grazing areas leads to observed range degradation with proliferation of unpalatable species and eventually loss of top soil.

2.4 Fuel Wood Extraction:

The cutting of trees for fuel wood is among the leading causes of deforestation in the Gambia. It is reported that forest in the Gambia provides 85% of the country's domestic energy needs in the form of fuel wood for over 90% of the population. As the population continues to increase, the fuel wood demand continues to increase

unprecedentedly and put more pressure on the country's remaining forest resources. Currently, many part of the country are facing shortage as the population of preferred fuel wood species decline. The market demand for certain species of fuel wood compelled wood vendors to harvest green wood.

2.5 Poaching/ illegal hunting:

Hunting is an important economic and social activity in the rural areas as bush meat provides important supplement to local diet. Hunting is practice for generations for domestic consumption of meat at household level, using dogs. With the proliferation of guns, hunters are capable of killing per hunting trip, several individuals of different species. Bush meat for domestic consumption gradually became commercialized as returns per hunting trip increases. Unlike traditional practices, modern hunting practices are very destructive, with hunters targeting animals at watering points where success rates are high. Insufficient information on population of species hunted and inability to conduct regular monitoring of hunting activities do not permit the setting of quota system for species being hunted.



Fig 11. confiscated guns and trophies

2.6 Over fishing of fish stocks:

Although the Gambia is reported to be endowed with adequate fish stocks, certain activities in the fishing sector such as use of gill net and large fishing trawlers are of concern. It has been established that The Gambia is harvesting only 40% of the

Maximum Sustainable Yields (MSY) for the demersal fish species (Saine *et al.* 1997). There are however real dangers of over exploitation. The previous fishing agreement between The Gambia and the European Union (EU) had contributed to over exploitation as a result of weak regulatory measures. In the inland waters, fish stocks have been observed to have declined base on returns per fishing effort. Use of illegal fishing gears and intrusion by foreign trawlers has been considered responsible for such state of affair.

2.7 Coastline Sand Mining:

The burgeoning construction industry has always been a major user of beach sand. In the quest to meet this ever increasing demand, sand mining has become a highly disorganized and chaotic local industry. Although there are attempts by government to control the activity, illegal sand mining is still a common on much of the coastal stretch. Species of marine turtles and water birds habitats have been degraded or totally lost in certain localities. Mining activities along the coast contributes to the process of coastal erosion, threatening many protected ecosystems such as Tanji Bird Reserve, and consequently, the economic and social livelihood of coastal communities.

2.8. Coastal Erosion:

Sand mining couple with the effect of steady removal of vegetation in respect of infrastructural development, settlements, cultivation, have been compounded by sea-level rise climate change erode much of the coastal habitat important for marine and coastal biodiversity.

2.9. Pollution:

Discharge of both solid and liquid wastes from domestic, agriculture and industrial sources affect water quality in and around the Tanbi Wetlands National park which ultimately cause decline in fish species. Increase in some aquatic macrophytes may create ecological imbalance and increase the proliferation of invasive species in the water bodies seldom prone for fish and fisheries breeding and nursery grounds.

3. IMPACTS OF CHANGE IN BIODIVERSITY FOR ECOSYSTEM SERVICES

Another direct impact of non sustainable utilization of natural resources in the Gambia relates to poverty among the general population. Since the vast majority of the populations are dependent on the exploitation of natural resources for their livelihood, there is a strong linkage between degradation of these resources and poverty levels. In the absence of exploited non-renewable natural resources such as oil, diamond and other precious metals despite the speculation of their existence, the country depends entirely on the exploitation of renewable natural resources for development. Agriculture, fisheries and tourism continue to be important sectors of the national economy. Some of the related impacts are listed as follows:

- ✓ Impact on fisheries productivity making fish resources scarce;
- ✓ Ecosystem services for Flood control/ erosion/wind-storm breaks destroyed;
- ✓ Declining wood and timber sources;
- ✓ Loss of livelihoods for rural people who directly depend on natural resources;
- ✓ Potential impact on wildlife based tourism as result of degradation;
- ✓ Potential loss of income because of cessation of livelihood activities;
- ✓ Increase in poverty levels as a result of loss of biodiversity;
- ✓ Loss of livelihood options;
- ✓ Decline in biodiversity contribution to the national GDP;
- ✓ Declines in ecosystem goods and services for human wellbeing;
- ✓ Declines in the living standards of the people;
- ✓ Human wildlife conflicts become accentuated and more frequent;

**PART II: THE NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN,
ITS IMPLEMENTATION, AND THE MAINSTREAMING OF BIODIVERSITY**

The Gambia National Biodiversity Strategy and Action Plan (NBSAP) currently under review recognizes that much of biodiversity loss in The Gambia is due to lack of awareness, poverty, inappropriate policies and perverse incentives which encourage over-exploitation and unsustainable use of biological resources. The Action Plans therefore emphasize awareness promotion, policy and institutional reform, and resource mobilization among others. The strategy also recognizes inadequate information and the necessary human resources and institutional capacity as major limitations hindering effective resources planning and management and, enforcement of laws and policies. Research, training and institutional capacity building are highlighted as priority areas. Furthermore, the NBSAP places emphasis on the continued monitoring of biodiversity components as well as the implementation of protocols and conventions. The long-term goal of The Gambia's NBSAP is to achieve the conservation and sustainable management of the country's biological diversity. This must be achieved throughout the whole country and within all representative ecological zones.



Fig 12: Wildlife staff Field monitoring

1. BIODIVERSITY TARGETS SET BY THE GAMBIA

THE IMMEDIATE GAMBIA BIODIVERSITY NATIONAL TARGETS, derived from the convention's Aichi biodiversity targets are as follows. This will be the guideline for action for the future implementation of the convention.

- By 2020, 50% of Gambia's population are aware of the values of biodiversity
- By 2020, biodiversity values are integrated 100% into national and local development and poverty reduction planning processes and national accounts
- By 2020, 50 % Governments, business and stakeholders have plans for sustainable production and consumption and keep the impacts of resource use within safe ecological limits
- By 2020, the rate of biodiversity loss, forest fragmentation and land degradation is reduced by 50%
- By 2020, 60% of all fisheries stock within spawning areas are protected, while the use of wrong gears regulated 40%
- By 2020, 50% of areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity
- By 2020, 50% of pollution, including waste and agro and industrial chemical has been brought to levels that are not detrimental to ecosystem function
- By 2020, reduced occurrence and introduction of invasive species by 50%.
- By 2020, communities dwelling in flood prone and watershed areas are reduced by 50%
- By 2020, all vulnerable ecosystems impacted by climate change minimized at least 20%
- By 2020, at least 5 per cent of terrestrial and inland water, and 15 percent of coastal and marine areas are conserved through systems of protected areas
- Target 12: By 2020, 35% of known threatened and rare species has been prevented from extinction and 50% extinct species reintroduced or restocked
- By 2020, 35% of the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives is maintained

- By 2020, poverty would be reduced by 10% of poverty driven communities to reduce pressure on natural resources significantly
- By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 50 per cent of degraded ecosystems,
- By 2020, the Nagoya Protocol on Access and Benefits Sharing is in force and operational
- By 2015 The Gambia would have adopted as a policy instrument, and has commenced implementing an effective, participatory and updated NBSAP
- By 2020, the traditional knowledge, innovations and practices of indigenous and local communities and their customary use, are respected.
- By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the understanding of consequences of its loss, are improved, widely shared and transferred, and applied
- By 2020, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, should increase substantially by 35%

The NBSAP (1999) was found to be inadequate to some extent to address the threats to biodiversity given that the document is outdated and many new issues have emerged since then. Consequently the document is being subjected to a complete review so as to make its development more participatory to ensure that the final product is a consensus document that is owned by all stakeholders-

Due to high turnover of staff (attrition) in the Gambia, those people who are well conversant with biodiversity issues and have the relevant institutional memory are replaced by a second generation that has limited knowledge. Secondly, sectoral issues were harmonised in the NBSAP and were perceived to be a wildlife document which gave little weight to its implementation. Additionally, due to low staff capacity, the

NBSAP priority project ideas could not be translated into bankable project proposals for funding. Finally, the NBSAP was not considered a policy document but rather a strategy. However, the revised NBSAP envisages to mainstream biodiversity issues into sectoral and cross sectoral policies, programs and plans, that will enable the acceptance and adoption of the concept of mainstreaming of issues of biodiversity and ecosystem services for human well-being into national or local plans, policies and programmes. All the issues that prevented the full implementation of the NBSAP (1999) are being analyzed objectively with the full participation of all stakeholders.

2. Priority Actions will contribute to the achievement of the Strategic Plan for Biodiversity (2011-2020) as well as address the set National Biodiversity Targets.

a. Under Protected Area systems

- i. To implement the CBD program of Work on Protected Areas
- ii. To designate and effectively manage Ecologically & Biologically sensitive Areas as Marine parks in any future PA expansion
- iii. To fully implement management and business plans of protected Areas.
- iv. To address the problem of inadequate capacity in ecosystem management
- v. To take stock and review traditional skills in management of Protected Area systems and incorporate these, where appropriate, into modern technologies
- vi. To ensure promotion of proper forest management, avoiding clearing of forests.
- vii. To promote research to enhance ecosystem management and protection with special emphasis on science policy linkages
- viii. To review and update existing legislations, and harmonize these with non-forestry legislation and ensure compliance
- ix. To ensure full and active participation of traditional authorities, landowners, communities and other stakeholders in protected area management
- x. To strengthen education and awareness creation at all levels of society especially among those whose livelihoods depend on the protected areas and forests.

- xi. To strengthen, ensure and promote networking and partnership between stakeholder institutions, private sector and civil society.
- xii. To promote gene flow through the creation of biological corridors to provide connectivity between fragmented biodiversity hotspots including the Important Bird areas and other protected areas.
- xiii. To seek collaboration with both local and external institutions in information exchange, science and technology.
- xiv. To establish strong CBNRM schemes in order to effectively implement the Nagoya protocol on Access to and Benefit sharing of proceeds from natural resources.

b. Outside Protected Areas.

All the 16 actions listed are considered as high priority and are still being vigorously pursued. These are:

- i. To adopt and practice cultural agronomic practices such as mixed cropping and agro forestry, rotations and cover cropping.
- ii. To discourage the use of agricultural chemicals and adopt integrated pest management practices, as well as other agriculturally sound practices
- iii. To encourage the Creation of urban forests or tree belts around farms, settlements, as refuge for various life forms.
- iv. To restore aquatic systems by reclamation of sites, cautious restocking / reintroduction with indigenous or lost species
- v. To undertake basic and applied research into the socio-economic and cultural importance and opportunities associated with biodiversity as well as the ecology and the dynamics of ecological processes and how they affect the various systems and biodiversity
- vi. To Study the impact of inter- and intra-specific interactions as well as alien species introductions on biodiversity
- vii. To Educate and create public awareness about the importance of hotspots for the sustainable use of biological resources and the conservation of biodiversity.

- viii. To encourage private sector involvement in the conservation of biodiversity and the sustainable use of biological and genetic resources inside protected areas and on private lands
- ix. To introduce appropriate environmental management and monitoring tools to measure changes.
- x. To minimize the conversion of forested off-reserve areas into non-forest land uses, such as for crop production, grazing etc.
- ~~xi.~~ To encourage wildlife department to establish additional Protected Areas in identified biodiversity sensitive areas.
- xii. To empower grass root administrative structures to enact bye-laws for the management, use and protection of biological resources and biodiversity
- xiii. To promote economic and social incentive measures that contributes to environmental sustainability.
- xiv. To conduct National wildlife inventory to establish status and trends and prepare a Red Data List
- xv. To continuously manage the existing databases on biodiversity and biological resources
- xvi. To promote the protection of national flagship species.
- xvii. Promote land use planning and governance within the vicinity of protected areas.

The activities listed in the revised NBSAP document cover all the thematic areas of the Convention, ranging from Agricultural Biodiversity, through Dry and Sub-humid biodiversity, Forest biodiversity, Inland Water biodiversity, Marine and Coastal biodiversity to Protected Areas.

3. Actions taken to implement the Convention since the fourth national report

The following have been achieved during the past five years:

Participation of local communities has been improved with the establishment of Site Management Committees in all the PAs, formation of Community Forest Committees (CFCs) and the community owned protected areas, has ease the process of expansion of the boundaries of Kiang west National Park and the designation of the new protected area (Jokadu National Park) that has increased protected area coverage from 51,240 ha to 71,526 ha. These processes have enabled the incorporation of other ecosystems into existing network of protected areas and as a result have encouraged diversification of governance styles that in a broad perspective has contributed to achieving the Aichi biodiversity targets. In the quest for sustainable financing of protected areas, the Gambia has successfully developed guidelines for private sector involvement that brought about the collaboration between the department and eagle heights (a UK charity organisation). The eagle heights project is meant to reintroduce wildlife species in Abuko and Kiang west national park. The department has successfully developed tourism package with some local private investors (Snake farm, Tanji Eco-camp, Tanji Village museum and Tanji bird reserve). A proposed crocodile trophy hunting programme is being explored for future revenue generation. A Biodiversity Trust Fund is already established with proceeds of US\$40,000 as seed money for PA financing sustainability options.



Fig 13: newly built office block in Dumbuto Camp

Under GEF financing with the implementation of the World Bank and UNDP executed projects, six protected area management plans were developed. This initiative has witness the participation of multi stakeholders to enhance planning of conservation management activities, and participatory zoning of the areas. Identification and development of community livelihood projects through sponsored programmes (bee-keeping, gardening, village banking schemes, oyster farming initiatives, village woodlots,) and two business plans for the capitalization of future opportunities

To improve institutional capacity of the department of Parks & wildlife management, a proposal was developed to turn the institution into an autonomous organisation under the guidance of the Zambia Technical assistance. This proposal is currently being reviewed by cabinet. Under the (GBMIS) project, the recommendation of the institutional reviewed proposed by WWF -WAMER in 2008 were implemented. As part of this initiative, twenty five (25) staff benefitted from series of Training courses at certificate, diploma and masters degree level in the field of wildlife conservation and natural resources management. This capacity building initiative has enabled the department to better undertake its mandate as the national institution responsible for biodiversity conservation and enhance its effectiveness in the implementation of its obligations to the convention and its protocol(s).

Project based inventories have been carried out on most forest reserves, wildlife sanctuaries and highly sensitive areas in and outside protected areas, to collect adequate data to better understand ecosystems and species dynamics for effective and efficient planning ,management and informed decision making. Considering the identification of gaps and the emerging of new issues, that necessitated the preparation of a draft wildlife conservation Bill which has been submitted to cabinet for consideration since 2013.The bill will help address access and benefit sharing, private sector involvement, diverse governance and sustainable financing.

Projects like ICAM I & II, GBMIS, Environment and Energy, BAANAF, NFA have enabled the country to commission some important studies and put in place quarterly monitoring programmes. These ranges from studies on terrestrial and marine mammals, aquatic invertebrates and forest cover. Some of the flagship species involved were marine turtles, dolphins, whales, sharks, rays, manatees, migratory birds, hippos, sitatunga, crocodile, mangroves, etc. The storage and management of all these data led to the development of a data base and the dissemination of result of the data interpretation necessitated the installation of a dedicated website. Species action and management plans were developed such as oysters, hippos, stititunga, lesser flamingo, crowned crane, and bar-tailed godwit. Some of these plans are under implementation. To facilitate implementation of routine management activities, infrastructures (offices, Photo hides, observation towers etc.) have been built in five protected areas by various projects that have improved the level of staff motivation. In other areas of cooperation the staff benefited from networking visits in the sub region. The Gambia has built some partnerships at the regional and sub regional levels and also collaboration was encouraged between various institutions in the country.

The long-term goal of the country strategy is to achieve the conservation and sustainable management of the country's biological diversity. The implementation of the Convention has been geared towards the implementation of the programme of work on PAs that has been established to reflect the various ecosystems in the country. These PAs and their management strategies and plans support the Convention's 3 objectives. Reference can be made to all the seven goals of the biodiversity target, namely: protection of biodiversity components; promotion of sustainable use; threats to biodiversity; maintenance of goods and services from biodiversity to support human wellbeing; protection of traditional knowledge, innovation and practices; ensuring the fair and equitable sharing of benefits arising from use of genetic resources; and provision of adequate resources, from which one can easily appreciate and understand the kind of contribution that have been made so far by the government and more importantly by through donor funded projects, on the protected areas.

To implement the various goals and objectives of the global Strategic Plan of the Convention, some of the goals have been aligned with the revised NBSAP currently under development. The conservation effort as contribution to the global strategy is appreciable but should be further encouraged and promoted. The DPWM is the institution responsible for the management of wildlife and protected areas as well as the national focal point for most of the Multilateral Environment Agreements (MEAs) such as: the convention of biological diversity, RAMSAR convention on wetlands of international importance, CITES, MAB, CMS, AEWa and BIOSAFETY among others. The development, updating and implementation of NBSAP in the country is spearheaded by the Department of Parks & Wildlife Management who also led the implementation of CBD Programme of Work on Protected Areas (PoWPA) over the years. The priorities in the national biodiversity strategies and action plans are being actively implemented, as a means to achieve national implementation of the Convention, and as a significant contribution towards the global biodiversity agenda. The implementation of POWPA, the review and updating of the NBSAP, the national reporting framework to the CBD secretariat and community participation and private sector involvement are among the strategies put in place to address the global biodiversity agenda. However most of the sectors do not aligned their activities with the 1999 NBSAP and as a result most of the activities were not reported.

The Gambia has put in place effective national strategies, plans and programmes to provide a national framework for implementing the three objectives of the Convention and to set clear national priorities. These Strategies, plans and programmes are developed in relation with global strategies, such as NAPA, NAMA, NBSAP, and IWWRM. To address issues in relation to the Cartagena Protocol on Biosafety, a regulatory framework has been developed and is presently being considered for necessary legal backing.

For the successful implementation of the Convention, projects and programmes have been designed and some implemented in and around selected protected areas country-wide. These achievements cited above are the results of very good management

practices that have assisted in the preparation of sound management regimes or plans in virtually all the protected areas as well as the piloting of two Business plans for Tanji Bird Reserve and Kiang West National Park. It is hoped that the other highly ecologically sensitive areas harbouring the flagship species such as Bambali swamp, proposed Jokadu national park, will receive adequate attention to become good habitats for national indication of biodiversity hotspots in the country. The eight (8) protected areas, the 66 national forests, mangrove and tidal zones as well as wetlands across the country, marine and coastal areas have been most effective areas for national implementation of the Convention

4. Mainstreaming of Biodiversity into relevant sectoral and cross-sectoral plans, programmes and strategies

Biodiversity concerns are being integrated into relevant national, sectoral, cross-sectoral plans, programmes and policies. This is as a result of the Programme for Accelerated Growth and Employment-2012-2015 (PAGE) and high priority being accorded to the environment, including climate change initiatives in the country.

It should however be recognized that all sectors have a biodiversity footprint (positive or negative) to a greater extent (livestock, agriculture, fisheries and environment constitute the foundation for nation building and livelihood development) and to a lesser extent (e.g. health, education & security). Therefore, biodiversity conservation needs to be integrated across all sectors. The Gambia recognizes the importance of mainstreaming and integrating biodiversity considerations and issues into sectoral and other stakeholders support. This has to be done in a manner that ensures that those very environmental concerns are addressed and are part of the evolving policies and laws, project design and practical implementation. For mainstreaming to be successful, EIA and SEA should be developed and used in planning, policy development and data collection processes. Notwithstanding the recognition, relevance and the positive steps

taken for environmental mainstreaming the following hurdles continue to present problems:

1. Decision making process is not decentralized.
2. Weak or inadequate application of EIA
3. Inadequate capacity (human and financial to apply SEA and EIA)
4. EIA recommendations often overruled by other considerations
5. Inadequate extension officers and logistics at the local level.
6. Biodiversity conservation is not well understood and recognized as an income generating activity and as such it is not given the priority it deserves as a sector compared to health, agriculture and education.



Fig 14: Local community planting mangrove in Niumi National Park

5. Major obstacles encountered in implementation;

The major obstacles centres around weak capacity as it relates to technical and institutional issues and arrangements. Inadequate funding and poor infrastructure- roads and communication facilities. The inability to present convincing cost benefit analysis for long term benefits in the face of other land use options which offer short term benefits renders government's annual budgetary allocation insufficient.

6. Future priorities

In dealing with the CBD life web initiative, the Gambia has declared its intention to fully implement the proposed Aichi Biodiversity Targets including the creation of Marine parks in the high seas. These orientations were presented during a CBD sponsored gala dinner during the L 3 congress in Marseille, France. Priorities for the future will depend mostly on the country's ability to contribute to the achievement of the three objectives of the Convention and the goals and objectives of both the 2020 biodiversity target and the Strategic Plan of the Convention. Four areas are of immense priority, considering the current status and trends of biodiversity and ecosystem goods and services for human wellbeing. These areas have been found to hold the key to future progress in the conservation of biodiversity, sustainable use of its components and the equitable sharing of benefits arising from the use of genetic resources. The priorities for the future of biodiversity in Gambia are the following: active private sector involvement, full involvement of all the stakeholders and science-based reintroduction of lost species into the wild in the Gambia; effective and independent national biodiversity governance structure with coordination, advisory and advocacy roles; effective awareness raising campaigns on biodiversity and ecosystem goods and services for human wellbeing; research and training including infrastructural development of Gambian institutions for effective and constant monitoring and evaluation of biodiversity status and trends. The 10 priority actions listed under this topic in the strategy document are at various stages of implementation:

- Strengthen institutional capacity of key agencies responsible for promoting conservation and sustainable use of biodiversity;
- Promote public awareness about the importance of biodiversity and the methods for its conservation and sustainable use;
- Enhance protection of key ecosystem and natural habitats and maintain viable populations of species inside and outside of the protected areas;
- Enhance scientific research and biodiversity data and information management to support the conservation and sustainable use of biological diversity;

- Encourage and support community conservation and collaborative resource management;
- Promote measures that act as positive incentives for the conservation and sustainable use of biodiversity or as disincentives to deter inappropriate actions;
- Develop a national regime (including legal, policy and administrative measures) and build necessary capacity to regulate access to genetic resources and promote benefit sharing;
- To promote studies and research on soil and water micro-organisms as well as the marine environment with regards to their importance in agriculture and forestry, health and welfare, food security etc, and;
- To ensure safe use of micro-organisms and genetically modified organisms to avoid their possible use for negative purposes.



Fig 15: Gambian delegate at the COP in haidarabad (India)

**PART III: PROGRESS MADE TOWARDS THE IMPLEMENTATION OF THE
STRATEGIC PLAN FOR BIODIVERSITY 2011-2020 AND ITS AICHI
BIODIVERSITY TARGETS**

The Gambia has endeavoured to improve full and effective participation at all levels to foster the contributions of women, indigenous and local communities, civil-society organizations, the private sector and stakeholders from all other sectors. Site Management Committees have been put in place in all the protected areas in the country to address diverse governance and to improve on the ownership aspect for the local people. A guideline for the private sector involvement has been developed and paved the way for the establishment of private game reserve and joint private government led management of Abuko Nature Reserve with the full involvement of Eagle Heights. The establishment of bye-laws with the adjacent communities for the rational exploitation of the resources has yielded benefits in the form of revenue generated for the local communities (thatch grass, fuel wood, ecotourism programmes). A tourism package involving four (4) business ventures is in place to boost revenue for Tanji Bird Reserve and surrounding communities.

During a meeting with the implementation of the NBSAP review project, the country developed and adopted a national set of targets derived from the Aichi Biodiversity Targets and its Strategic Plan. This set of goals and targets will be the benchmark for the implementation of the Global strategic plan 2011-2020. The country endeavours to mobilise every possible opportunity for the utilization of resources provided through the Strategy for Resource Mobilization. Presently the Gambia has exhausted its allocation under the RAF 5 and is anxiously waiting for the new allocation. Projects and programmes have been developed and are being-funded through the Special Climate Change Fund and the LCDF.



Fig 16. National Biodiversity target setting Workshop

The Review, revision and update of the national biodiversity strategy and action plan (NBSAP) is in progress. This exercise aims to align the updated NBSAP with the Global Strategic Plan. During the exercise, the national targets will be integrated into the revised and updated NBSAP, which will be adopted as a national policy instrument for the Biodiversity sectors. After the review, the updated NBSAP will serve as an effective instrument for the integration of biodiversity targets into national development and poverty reduction policies and strategies, national accounting, economic sectors and spatial planning processes as appropriate, by Government and the private sector at all levels. A coherent monitoring plan will be drawn as part of the review process of the implementation of the revised NBSAP using the already developed national targets, set of indicators to gauge success in the future. This reporting framework on progress achieved so far towards the implementation of the Strategic Plan and Aichi Biodiversity Targets through the fifth national report is another step towards the national implementation of the convention's objectives and strategic plan.

The Nagoya Protocol on ABS has been ratified by the National Assembly on the 21st May 2014. This is aimed at addressing the provisions of the United Nations Declaration on the Rights of Indigenous Peoples and national legislation.

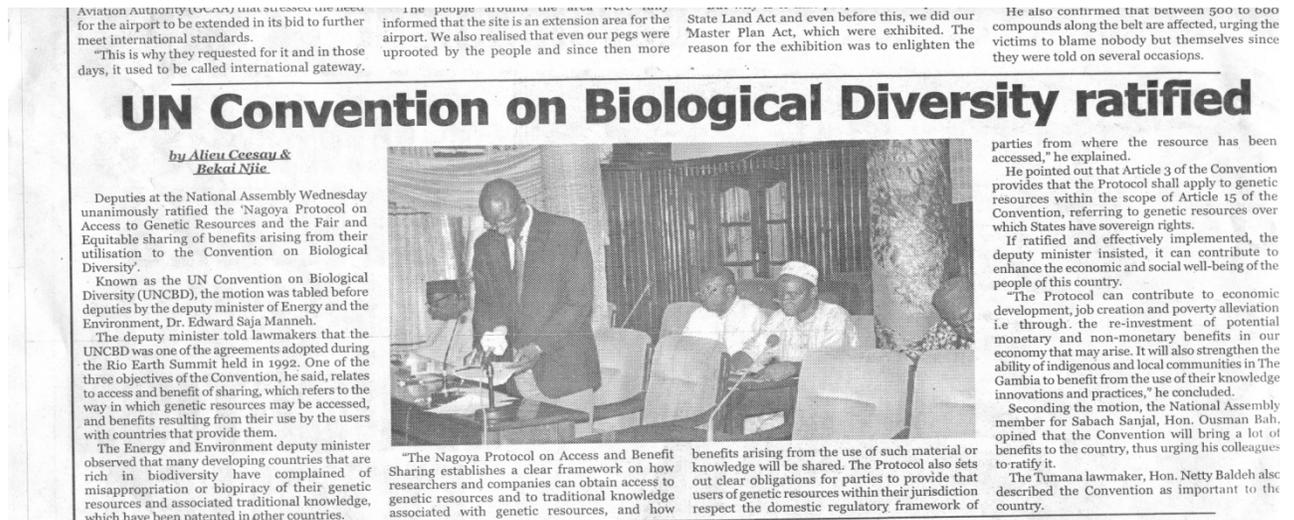


Fig 17. Nagoya Protocol Ratification session at the National Assembly

Finally with the establishment and replenishment of the Biodiversity Trust Fund, the Provision of adequate, predictable and timely financial support through contributions from the government, developed country, funding agencies, will boost the implementation of the conservation strategies and improve on the existing sound agenda for sound Biodiversity Management.

1. The contribution of actions to implement the Convention towards the achievement of the relevant 2015 targets of the Millennium Development Goals

The Gambia's framework for poverty alleviation, food security and growth was stipulated in its Programme for Accelerated Growth and Employment (PAGE) 2012-2015 the successor document to the previous poverty reduction strategy papers-2007-2011(PRSP 11). The programme consolidates the Millennium Development Goals (MDGs) and the objectives of Vision 2020 and defines the overall government strategy for attaining sustainable growth and development. It recognizes that poverty alleviation in rural areas demands priority investment in the agriculture, health and education

sectors. Another key document, the Agricultural and Natural Resources Policy (ANRP) 2009-2015, was approved and adopted at The Gambia's first-ever national farmers' conference. This policy is part of the government's commitment to transforming agriculture into a robust, market-oriented sector that makes an important contribution to poverty reduction and economic growth – and to meeting the country's MDGs.

There have been policy initiatives adopted in the ANR sector. One significant initiative includes the preparation and validation of the ANR Sector Policy Framework (2009-2015). Key strategic ANR policy objectives by 2015 focus on the following: Enhanced and sustainable measurable levels of food and nutrition security in the country in general and vulnerable populations in particular; A commercialized sector ensuring measurable competitive, efficient, and sustainable food and agricultural value chains, and linkages to markets; Strengthened institutions (public and private) in the sector, providing needed services, strong and enabling environment, and reducing vulnerability in food and nutrition security; and Sustainable effective management of the natural resource base of the sector.

National Policy for Advancement of Gambian Women concerns mainstreaming women into the national development process across all sectors and setting goals and strategies for facilitating women to have equal access to opportunities in order to bridge gaps of traditional gender based inequalities and deprivation and to achieve an equitable gender balance in rural economic activities, especially agricultural production, processing and marketing. The objectives include to:

Enhance and develop the productive capacities of women with a view to increasing their contribution to household welfare and food security in particular; Reduce drudgery of rural women so as to enhance the quality of their life; and Increase women's access to production resources and inputs and support services.

The Women's Bureau is an important institution that advises Government on these matters and is responsible for conducting data collection, research, analysis and dissemination of information, monitoring of women's programmes and backstopping to other institutions. In tandem, the Youth Policy focuses on the mainstreaming of youth into the productive economic sectors (e.g. ANR) for greater achievement of food, nutrition and income security and also inculcates in them the culture of self reliance.

A number of donor-assisted programmes and projects are being implemented in the crop sub-sector, which includes: AfDB/IFAD/GOTG-supported PIWAMP, Nema, FASDEP, and SLMP which focuses on enhanced land productivity, halt or reduce and reserve soil erosion through enhancing upland and lowland crop production ecologies by promoting lowland watershed management schemes, and improving upland conservation management.

Completed projects including: the FMRIP, mainly co-financed by AfDB and GOTG, focused mainly on rice production to enhance food and income security of the target beneficiaries through land preparation, tidal and pump irrigation; the GALDEP co-financed by IDB and GOTG also involved in the preparation of the inland valleys of the nine districts of West Coast Region (WCR) for the production of rice and horticultural crops in a drive towards food and income security.

The GNAIP Programmes 1 and 5 and ANRP seeks to complement and scale-up as appropriate these interventions and utilize opportunities to expand suitable land and water management practices. Implementation of these national and strategic programmes will facilitate ANR sector development activities to adhere to environmental safe guards, and involve relevant international programmes and processes to mitigate and/or adapt to the impact of climate change notably agricultural development.

Present successful adaptation and mitigation options will be further deepened, and have the potential to attract funding from the Biodiversity Convention, Global Environment Facility (GEF) and the UN-REDD programme (Reducing Emissions from Deforestation and Forest Degradation), and Nationally Appropriate Mitigation Actions (NAMA) agreed in the Copenhagen Agreement under the UN Framework Convention on Climate Change (UNFCCC). The proposed national policy and strategic programmes will specifically address environmental and forest deterioration and degradation, adaptation to climate change, soil and water conservation technologies, extension, farmer, and institution strengthening and capacity building activities.

2. What lessons have been learned from the implementation of the Convention

Those that have been at the helm of the departments responsible for Biodiversity conservation (Parks, Forestry, Livestock, agriculture ...) and responsible for the implementation of the NBSAP have left the positions as directors within the course of the implementation phase. The second generation had very little knowledge or understanding about the framework. At the focal Department level, the NBSAP was always used to develop projects in order to be able to implement the activities of the Action plan. The ICAMI & II, PoWPA, GBMISP, were all designed to address the NBSAP issues. Monitoring and evaluation was not a component taken seriously to ascertain compliance. For the revised NBSAP, we believe that all the issues that prevented the full implementation of the previous NBSAP should be analyzed objectively with the full participation of all stakeholders when designing the monitoring plan component of the reviewed NBSAP. It is believed that this approach will enable the acceptance and adoption of the concept of sectoral mainstreaming of issues of biodiversity and ecosystem services for human well-being into national or local plans, policies and programmes.

On successes, reference can be made to progress cited above. However, for obstacles, there have been a number of challenges and many of these take root from the basic misunderstanding of conservation and sustainable use of biodiversity. Inadequate ability to use cost benefit analysis to make a case for biodiversity has often led to low national budgetary allocation and its relegation to a lesser important department compare to agriculture, education or health which are not in the best interest of biodiversity conservation.

The following may be considered as lessons learned which can contribute to removal of theses cited obstacles:

- Need for upgrading the wildlife sector into an autonomous entity.
- Science-based reintroduction of lost wildlife species like lions, leopards, antelopes, etc....
- Increased awareness and wide publicity on the revised NBSAP and its strategy-

**APPENDIX I - INFORMATION CONCERNING REPORTING PARTY AND
PREPARATION OF NATIONAL REPORT**

A. Reporting Party

Contracting Party	The Gambia
NATIONAL FOCAL POINT	
Full name of the institution	<i>Department of Parks and Wildlife Management</i>
Name and title of contact officer	<i>Momodou L Kassama, Director</i>
Mailing address	c/o Ministry of Environment, Parks and Wildlife ,1 st floor GIEPA house, Kairaba Avenue, The Gambia
Telephone	220/ 4376972/ 3903511
Fax	Not available
E-mail	Mkassama2@yahoo.com
CONTACT OFFICER FOR NATIONAL REPORT (IF DIFFERENT FROM ABOVE)	
Full name of the institution	<i>Department of Parks and Wildlife Management</i>
Name and title of contact officer	<i>OusainouTouray , Senior Wildlife Conservation Officer</i>
Mailing address	c/o Ministry of Environment, Parks and Wildlife ,1 st floor GIEPA house, Kairaba Avenue, The Gambia
Telephone	220/ 4376973/ 9817559
Fax	Not available
E-mail	oustouray@gmail.com
SUBMISSION	
Signature of officer responsible for submitting national report	Ousainou Touray
Date of submission	May 2014

APPENDIX II- PROCESS OF PREPARATION OF NATIONAL REPORT

Please provide information on the process used to prepare this report, including information on stakeholders involved and material used as a basis for the report.

The process involved two steps

- a) national consultation involving various stakeholders with Questionnaires for preparing the 5th National Report to the CBD was provided to all relevant stakeholders
- b) Search for existing biodiversity information and CBD National Focal Point to prepare draft report;
- c) Review of the report by a Biodiversity expert consultant; and
- d) National validation workshop of the document

APPENDIX III:

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN (NBSAP) REVISION

PROJECT: BIODIVERSITY QUESTIONNAIRE

Notes to Respondents: (Technical Departments, NGOs, CBOs and other natural resource users):

1. Definition: For the purpose of this assignment the term ‘biodiversity’ which refers to the entire spectrum of plants and animals on the earth other than human beings, is understood to cover any activity of your sector or work that affects in any way, any domestic or wild plant or animal or their habitats. Biodiversity related to your sector could exist either as genetic material, species or ecosystem (e.g forests, rivers, agricultural lands, other water bodies etc)

2. Impact/Trend: Please provide both qualitative and quantitative information on the status of the type of biodiversity your sector either utilizes, protects, affects or values.

NB: Please use extra sheets as may be necessary in answering these questions

Part I: An update on biodiversity status, trends, and threats and implications for human well-being

Q1: Why is biodiversity important for your sector?

Q2: What major changes have taken place in the status and trends of biodiversity in your sector?

Q3: What are the main threats to biodiversity in relation to your sector?

Q4: What are the impacts of the changes in biodiversity for ecosystem services, if any and the socio-economic and cultural implications of these impacts in relation to your sector?

Q5: What are possible future changes for biodiversity related to your sector and their impacts?

Part II: The national biodiversity strategy and action plan, its implementation, and the mainstreaming of biodiversity

Q6: What are the biodiversity targets, if any, set by your sector?

Q7: How effectively has biodiversity been mainstreamed into your relevant sectoral and cross-sectoral strategies, plans and programmes?

Q8. How fully has your national biodiversity strategy and action plan been implemented?

Part III: Progress towards the 2020 Aichi Biodiversity Targets and contributions to the relevant 2015 Targets of the Millennium Development Goals

Q9: What has been the contribution of actions to implement the Convention and/or your sector's biodiversity-related policies/programmes towards the achievement of the relevant 2015 targets of the Millennium Development Goals in your sector?

10: What lessons have been learned from the implementation of the Convention in your sector?

Notes to Respondents: (Technical Departments, NGOs, CBOs and other natural resource users):

Definition: For the purpose of this assignment the term ‘biodiversity’ which refers to the entire spectrum of plants and animals on the earth other than human beings, is understood to cover any activity of your sector or work that affects in any way, any domestic or wild plant or animal or their habitats. Biodiversity related to your sector could exist either as genetic material, species or ecosystem (e.g forests, rivers, agricultural lands, other water bodies etc)

Impact/Trend: Please provide both qualitative and quantitative information on the status of the type of biodiversity your sector either utilizes, protects, affects or values.

Part I: An update on biodiversity status, trends, and threats and implications for human well-being

Q1: Why is biodiversity important for your sector? Please elaborate on the importance of biodiversity by highlighting contributions of biodiversity and related ecosystem services to human well-being and socio-economic development, using information from completed and ongoing biodiversity assessments or studies. Where possible provide estimates of economic, social and cultural values (the economic value can be presented in monetary terms or, for example, in numbers of people supported). Also highlight a few examples of exceptional biodiversity and ecosystems in the sector.

Q2: What major changes have taken place in the status and trends of biodiversity in your sector? Focus on changes that have occurred, or that have become known, since the fourth or last national report was prepared. The analysis or synthesis should provide a succinct overview of biodiversity status, trends and threats sufficient to inform decision-makers, rather than an exhaustive assessment of these issues. There is no need to repeat detailed descriptions of your sector’s biodiversity that were provided in the fourth or previous national reports. However, countries that have not presented a comprehensive analysis of the status and trends of biodiversity in their previous reports could do so in this report. Where possible, show changes in biodiversity or other trends

over time and use quantitative indicators (with technical details of the indicators provided in an annex). Also draw upon expert qualitative assessments. Illustrate trends with charts, graphs, figures and tables. Where possible, analyse how actions taken (i.e., actions described in part II) have resulted in changes in biodiversity. Use case-studies to illustrate general points. The case-studies should demonstrate significant reductions in the loss of biodiversity (or a specific component) within a defined scale, and a clear rationale of how this is linked to the actions taken. The case will be most useful if it contains lessons that are more widely applicable.

Q3: What are the main threats to biodiversity in relation to your sector? (Or, what are the main causes of the negative changes described in the answer to question two?). For the main biomes and/or components of biodiversity, describe the main direct drivers of biodiversity loss (pressures) and the main indirect drivers (underlying causes) and relate these to the relevant economic sectors. Be specific about the direct drivers (e.g., “dynamite fishing”, “coastal development”), but also categorize them (habitat change, climate change, overexploitation, invasive species, pollution), with some detailed analysis.

Q4: What are the impacts of the changes in biodiversity for ecosystem services, if any and the socio-economic and cultural implications of these impacts in relation to your sector?

Describe the impacts of declining biodiversity and ecosystems on human well-being, livelihoods, poverty reduction, etc. Consider all relevant and significant ecosystem goods and services.(NB: Typical ecosystem services include rain-bearing by forests, fish production by the ocean and rivers, timber production by trees, pollination and honey production by bees, water purification by wetlands etc.)

Q5: What are possible future changes for biodiversity related to your sector and their impacts?

Describe plausible future scenarios for biodiversity in terms of underlying causes, pressures, impacts on biodiversity and implications for human well-being. For example, compare what might happen under “business as usual” policies with what might happen with greater investment in biodiversity and ecosystems. Such scenarios may be simple “what if?” narratives, or based on models if such models are available. Any presentation of future scenarios should describe scientific uncertainties.

Part II: The national biodiversity strategy and action plan, its implementation, and the mainstreaming of biodiversity

Q6: What are the biodiversity targets, if any, set by your sector? Describe the measurable targets (for example, for 2020) that have been developed in line with the Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011-2020. Please provide further updates on the targets if your sector has submitted a report to the current Review process under the purview of the Department of Parks and Wildlife Management (DPWM).

Q7: How effectively has biodiversity been mainstreamed into your relevant sectoral and cross-sectoral strategies, plans and programmes?

Describe how biodiversity is reflected in poverty reduction strategies and other key cross-cutting policy instruments of your sector. Describe actions taken and outcomes achieved by each sector to implement biodiversity actions included in their respective strategies, plans and programmes. Which tools are used (e.g., ecosystem approach, biodiversity-inclusive environmental impact assessment and strategic environmental assessment, spatial planning, etc.)?

Q8. How fully has your national biodiversity strategy and action plan been implemented? Analyse the extent to which the national biodiversity strategy and action plan has been implemented. For example, what proportion of the planned activities has been carried out and to what extent have the objectives been met. Identify the remaining challenges for implementation. (Note that if your national biodiversity strategy and action plan has been recently updated, this analysis will relate primarily to the previous version of the national biodiversity strategy and action plan).

Part III: Progress towards the 2020 Aichi Biodiversity Targets and contributions to the relevant 2015 Targets of the Millennium Development Goals

Q9: What has been the contribution of actions to implement the Convention and/or your sector's biodiversity-related policies/programmes towards the achievement of the relevant 2015 targets of the Millennium Development Goals in your sector?

In order to highlight the importance of biodiversity for achieving broader national objectives, and drawing upon, as appropriate, information in parts I and II, analyse how the actions taken to implement the Convention/your sectoral programmes, particularly the implementation of the 2015 milestones and Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011-2020, have contributed or are contributing to the achievement of relevant 2015 targets of the Millennium Development Goals, as well as to the Millennium Development Goals overall.

Q10: What lessons have been learned from the implementation of the Convention in your sector? Provide an analysis of lessons learned from implementation, highlighting examples of successful and less successful actions taken, including remaining challenges. Also provide suggestions for actions that need to be taken at the national, regional and global levels to further enhance implementation of the Convention at the national level and, in particular, to achieve the strategic goals and targets of the Strategic Plan for Biodiversity 2011-2020.

APPENDIX III -THE BIODIVERSITY STAKEHOLDER COMMUNITY

1. Ministry of the Environment, Parks & Wildlife, Kairaba Avenue
2. Ministry of Fisheries and Water Resources, Banjul
3. Ministry of Finance and Economic Affairs
4. Coordinator, WWF Gambia Office, Attn: Alagie Manjang
5. Director, Department of Livestock Services, Abuko
6. Vice Chancellor, University of The Gambia, Attn: Dr. E. Njie
7. National Environment Agency, Kanifing
8. Kanilai Alternative Treatment Programme, Bakau HQ
9. Traditional Healers Association, Attn: Amadou Njai, NiumiBerending
10. National Disaster Management Authority, Kairaba Avenue
- 11., Peace Corps Volunteers, The Gambia, Kairaba Avenue
- 12.UNDP Programme Analyst for Environment and Energy
13. Action Aid The Gambia, Kanifing
14. Women in Development, WISDOM, Kanifing
15. Department of Agriculture, Cape Point, Bakau
16. Women's Bureau, Banjul
17. Department of Physical Planning & Housing, Banjul
18. Wildlife Conservation Trust, C/o School Farms Unit, Kanifing
19. Department of Water Resources, Banjul
20. Planning Services (DOP), Banjul
21. Department of Fisheries, Banjul
22. Department of Forestry, Banjul
23. National Agricultural Research Institute, Brikama, West Coast Region
24. ADWAC, Kerewan, NBR
25. National Agricultural Training Center, Njawara, NBR
26. Department of Parks and Wildlife Management, Abuko
27. Makasutu Wildlife Trust , DPWM, Abuko

REGIONAL STAKEHOLDERS:

- 28. Focal Point/Community Development Officer, Upper River Region, Basse
- 23. Focal Point/ Community Development Officer, Central River Region South
- 30. Focal Point/ Community Development Officer, Central River Region North
- 31. Focal Point/ Community Development Officer, Lower River Region
- 32. Focal Point/ Community Development Officer, North Bank Region
- 33. Focal Point/ Community Development Officer, West Coast Region
- 34. Focal Point/ Community Development Officer, Kanifing Municipal Council
- 35. Focal Point/ Community Development Officer, Banjul Municipal Council

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