

GOLA FOREST NATIONAL PARK (GFNP) MANAGEMENT PLAN

**GRAND CAPE MOUNT AND GBARPOLU COUNTIES
LIBERIA**



July 2019

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ABBREVIATIONS & ACRONYMS

ARTP	Across The River-Transboundary Peace Park for Liberia & Sierra Leone
CBD	Convention on Biological Diversity
CEC	Conservation Education Center
CEP	Critical Ecosystem Partnership Fund
CI	Conservation International
CETU	Community Engagement & Tourism Unit
CFMA	Community Forest Management Agreement
CITES	Convention on International Trade in Endangered Species of Wild Fauna & Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CPW	Chief Park Warden
CRL	Community Rights Law with Respect to Forestlands
CSSL	Conservation Society of Sierra Leone
EBA	Endemic Bird Area
EIA	Environmental Impact Assessment
EPMA	Environmental Protection & Management Act
EPML	Environmental Protection & Management Law
FDA	Forestry Development Authority
FFI	Fauna & Flora International
FPIC	Free, Prior & Informed Consent
GGL	Greater Gola Landscape
GIS	Geographic Information System
GFNP	Gola Forest National Park
GFNPMP	Gola Forest National Park Management Plan
GPS	Global Positioning System
HCVs	High Conservation Values
HQ	Headquarters
HWC	Human & Wild Animal Conflict
IBA	Important Bird & Biodiversity Area
IPPC	International Plant Protection Convention
IT	Implementation Team
IUC N	International Union for the Conservation of Nature
LCF	Liberia Conservation Fund
METT	Management Effectiveness Tracking Tool
MIS	Management Information System
MOU	Memorandum of Understanding
NBSAP	National Biodiversity Strategy & Action Plan
NECOLIB	National Environmental Commission of Liberia
NFRL	National Forest Reform Law
NTFPs	Non-Timber Forest Products
PAs	Protected Areas
PCAP	Park Conservation Awareness & Promotion
PMM	Park Management Meeting
POW	Park Operation Warden
PTA	Participatory Threat Analysis
RAMSAR	Convention on Wetlands
REDD+	Reduced Emissions from Deforestation & Forest Degradation, fostering conservation, sustainable management of forests, and enhancement of carbon stocks
RIU	REDD+ Implementation Unit
RRUs	Rapid Rural Units
RSPB	Royal Society for the Protection of Birds

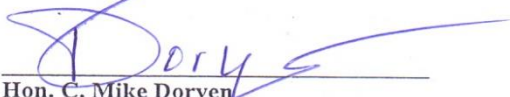
SAPA	Social Assessment of Protected Areas
SCNL	Society for the Conservation of Nature of Liberia
SF	Strike Force
SLC	Selection Logging Company
SWOT	Strength, Weakness, Opportunities, Threats
UGF	Upper Guinea Forest
UNDP	United Nations Development Programme
WABiCC	West Africa Biodiversity & Climate Change
ZSA	Zonal System of Administration

Authorisation

This Management Plan is hereby presented in fulfilment of the legal requirement for managing the Gola Forest National Park (GFNP), in accordance with the Gola Forest National Park Act of 2016, approved by the President of the Republic of Liberia in December 2016 and the National Wildlife Conservation and Protected Area Management Act of 2016.


The development of the Management Plan was conducted by the Forestry Development Authority (FDA) and the Society for the Conservation of Nature of Liberia (SCNL) with funding from the Rainforest Trust.

This Management Plan is therefore authorized by the Forestry Development Authority, Republic of Liberia for implementation.



Hon. C. Mike Doryen
Managing Director
Forestry Development Authority-FDA

Date: 14 Oct 2019



Mr. Michael F. Garbo
Executive Director
Society for the Conservation of Nature of Liberia-SCNL

Date: 14-10-2019

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1. INTRODUCTION

Liberia contains about 4.3 million hectares of a thriving, robust lowland tropical rainforest ecosystem that comprises about 43% of the Upper Guinea Forest (UGF) of West Africa (World Bank 2016), a globally recognized biodiversity hotspot among 34 others described by ecologists as the most threatened species-rich regions on Earth (Williams et al 2011, Myers et al 2002, Cincotta & Engelman 2000). The world's 35 biodiversity hotspots cover 17.3% of the Earth's continental surface and are characterized by both exceptional biodiversity and considerable habitat loss (Myers et al 2000). The area is linked to the Gola Rainforest National Park in Sierra Leone, creating a unique transboundary Peace Park covering over 2,000 km², providing important additional collaborative opportunities between the two neighbouring countries for promoting conservation and sustainable management across the politically divided ecosystem.

The Gola Forest National Park (GFNP) is an integral part of the UGF, of which about 80% is now considered as an agriculture-forest mosaic (CEPF 2015). Liberia's forest cover is fast-depleting because of mining, uncontrolled and unsustainable logging, shifting cultivation, establishment of rubber and, of recent, giant oil palm plantations and the lack of a practical national land use policy. This dire trend of forest loss and the rate of biotic cleansing it entails and ensures are highly likely to render impossible the 30% of conservation target of Liberia's forest if determined steps towards a lasting solution are not taken to arrest what a growing body of published experiences believes is an example of an unprecedented crisis of global extinction (see Shaik & Shaik 2018, Maxwell et al 2016).

Since its foundation as a National Forest in the 1960s to its gazettelement as a National Park in 2016, the stewardship of this forest ecosystem has never been on the basis of an organized set of policies, actions and guidelines. The Gola Forest National Park Management Plan (GFNPMP) is an attempt to meet this challenge. It provides a vision that the Park Manager and staff should aim to achieve and is in agreement with the National Forestry Reform Law of 2006, Section 9.8, which mandates that Protected Areas "prepare and publish, and thereafter review and republish every five years, a comprehensive management plan for Protected Areas in accordance with internationally accepted standards". Table 1 shows the periods and summaries of key achievements which culminated into the establishment of the Gola Forest National Park.

Table 1: Key Periods and Achievements Resulting in the Establishment of the Gola Forest National Park

Period	Summary of Key Achievements
1968	Designation of Gola Forest as a National Forest by the Government of Liberia, covering about 206,990 hectares (ha).
1998	Designation of Gola National Forest by Birdlife International as an Endemic Bird Area (EBA), an integral part of the Upper Guinea Forests ecosystem which is a globally recognized biodiversity hotspot in West Africa.
2001	Designation of the Gola National Forest by Birdlife International as an important Bird and Biodiversity Area (IBA), Lofa-Gola-Mano complex.
2009	Joint declaration by the President of Liberia and the President of Sierra Leone on the intention to designate portions of the Gola National Forest within their borders as national parks, essentially creating a Transboundary Peace Park.
2010-2013	Across the River: A Transboundary Peace Park for Liberia and Sierra Leone Project.
2013-2015	The Gola Forest National Park Project, following recognition of the Forest's vast potential to be declared a National Park.
2014-2018	GolaMA: A Gola Management Area project, connecting forest and people.
2015	The Liberian House of Representatives passed an Act for the designation of the Gola Forest National Park.
2016	The Liberian Senate passed the Act for the designation of the Gola National Forest Park, an Act signed by the President.
2018	Demarcation of the Gola Forest National Park

1.1. Site Description of the Gola Forest National Park

- 1.1.1. **Location:** The Gola Forest National Park (the Park) is located in the extreme west of Liberia, on the border with Sierra Leone. It lies within Grand Cape Mount and Gbarpolu Counties, approximately 105 km north-north-east of Robertsport and 65 km northwest of Bopolu, the respective County Capitals. The Park is 135 km due north of Liberia's Capital, Monrovia (see Map 1).

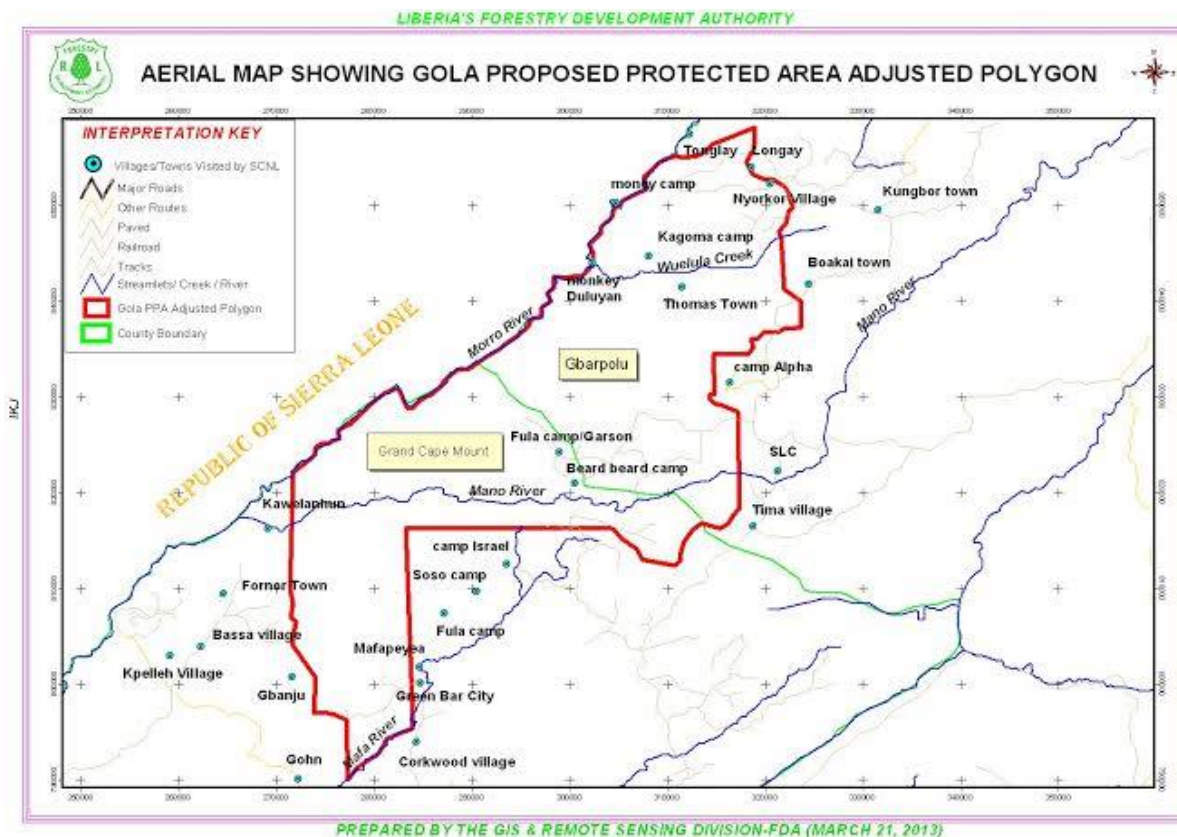


Figure 1: The Gola Forest National Park

1.1.2. Area

The Park covers an area of 88,000 hectares (217,448 acres). It accounts for approximately 24% of the *Greater Gola Landscape* (GGL), an almost continuous tract of forest spanning the Liberia-Sierra Leone border. This tract of forest is a mosaic of protected areas, community forests and forest management projects.

1.1.3. Access

The Park is primarily accessed on foot along small bush roads from forest edge villages. On its north-eastern side, there is a dirt road linking Tima village, SLC, Camp Alpha and Kungbor, though this is often inaccessible to vehicles during the rainy season. Further south, the road to Camp Israel is only accessible to motorbikes for that last section of the Park.

1.1.4. Administrative authority

The Park lies within Grand Cape Mount and Gbarpolu Counties. Overall responsibility for the protection and management of the Park lies with the Forestry Development Authority (FDA), and coordination of the day to day management of the site is carried out by staff recruited by the FDA. What the Plan strongly recommends is that an Advisory Board be created to make management decisions.

1.2. Biophysical Description

1.2.1. Climate

The Park lies within the wet tropical climatic zone and has marked wet (April to November) and dry (December to March) seasons. No specific meteorological data collection has been carried out in the Park.

1.2.2. Soils

There is no specific data for the Gola Forest National Park (GFNP)(the Park); however, the geological map of Liberia prepared by the Liberian Geological Society and the US Geological Survey between 1965 and 1972 shows that the Park lies on a mix of Kimberlite, Granite and Granodiorite rocks dating from the Precambrian, Jurassic and Cretaceous periods. Extensive weathering of these rocks has produced a dense cover of laterite and saprolite soils. Liberia is rich in mineral deposits, especially gold, iron ore and diamonds, with a concentration of known or suspected deposits in the west of the country, including in the area covered by the GGL forests (Map 2)

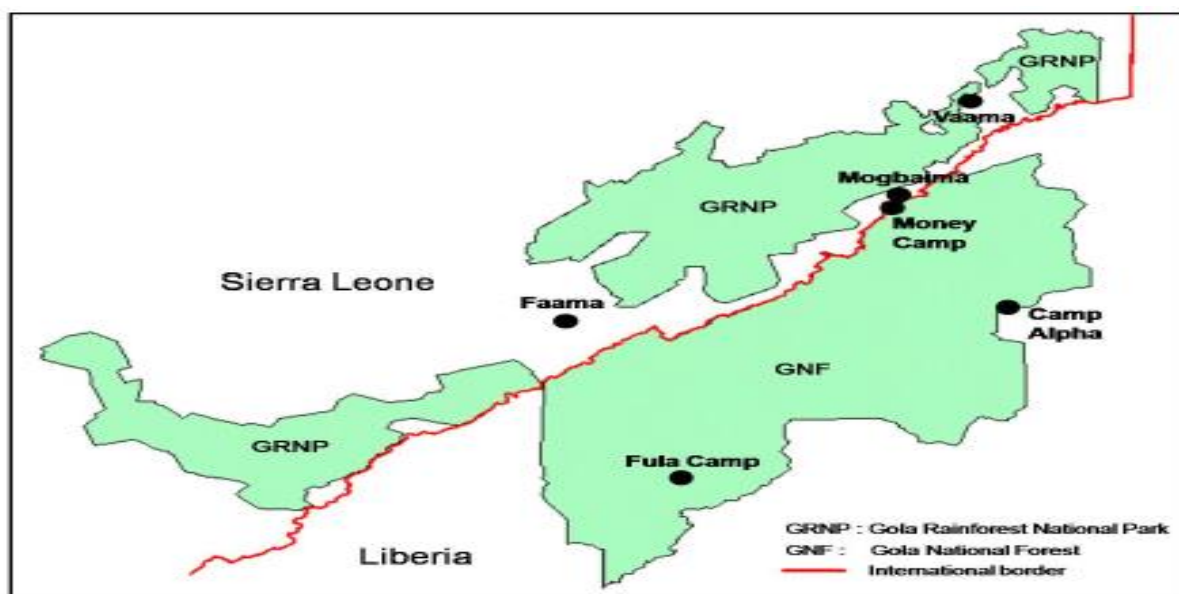


Figure 2: The Greater Gola Landscape Forest

1.2.3. Geomorphology : The Park consists of a series of ridges of rounded hillocks with, in places, steep, bare, rocky slopes and river valleys. The rivers are characterised by spectacular rapids and waterfalls and are usually difficult or impossible to cross in vehicles. The maximum elevation in the area is 535 m asl in the far north-east of the GNFP (J. Lindsell pers. comm.)(RSPB 2017).

1.2.4. Hydrology

The main freshwater body in the Park is the Morro River which forms the western boundary of the Park and is the international border with Sierra Leone. Three other main rivers cross the Park – the Wuelula Creek in the north, the Mano River in the centre and the Mafa River which forms the south-eastern border of the Park. The main rivers are important sources of fish for consumption and support much of the biodiversity of the GFNP.

1.3. Socioeconomic Description

Surveys carried out in 27 towns and villages in or adjacent to the Gola National Forest put population at 18,519 (Bulte et al 2012). None of these sampled settlements was located in the GFNP. Among the major activities to be prioritized in implementation of the Plan are socioeconomic surveys to determine the population of park fringe and adjacent communities. Summarized socioeconomic data and information are presented in Table 2.

Table 2: Summary of Socioeconomic Data and Information of Communities in Close Proximity to the Gola National Forest.

Socioeconomic Variables	Value and Description of Variables
Population	18,519
Average age	23 years (Only 5% of the population is older than 58 years).
Language	Mende (Most common)
Ethnicity*	Most towns and villages mixed (Mende, Mandingo, Vai, Gio, Kissi, Gola)
Religion	Muslim(46), Christianity (44%), Traditional religion and others(10%)
Facilities**	Electricity (0), Generator (28%), Radio (88%), Public toilet (11%), and Cemented drying floors for solar drying(7%)
Services/Infrastructure	Primary school (40%), Health clinic (9%), Pharmacy (5%), Police station (5%), Shops of products for sale(21%), Construction shops (13%), Mosque (60%), Church building (42%), Palava hut (55%), Local well (47%), and Handpump (40%)
Livelihoods	Farming, Hunting (mostly commercial), mining, chainsaw logging, small-scale enterprises (buy-and-sell businesses)
*The names of ethnic groups and languages spoken by such groups are synonymynous. Mandingo, for example, is an ethnic group that speaks Mandingo. Gio speaks Gio, Mende speaks Mende and so on.	
**The parenthesized percentages following each facility and service are indicative of the percentage of each of the 27 sampled settlements that benefit/possess/or somehow have access to such facilities and services.	

1.4. Biodiversity

Employing a variety of methods and techniques involving equipment with varying sophistication in accuracy and reliability, Hillers et al (2013) performed a series of biological surveys, monitoring and continuous mapping which exclusively captured and catalogued a multitude of faunal species. The studies gave conservation science a glimpse of the exceptional wealth of biodiversity which the Gola Rainforest National Park in Sierra Leone and the Gola National Park in Liberia possess, these forested landscapes being critical portions of the Upper Guinea Forests of West Africa.

The studies had also registered, for the first time, some species endemic to Liberia, including about 13 species new to science, and 13 amphibians and 4 reptiles of global concern, along with 9 key landscape species (Hillers et al 2013). Like the world's 35 biodiversity hotspots which account for 77% of all endemic plant species (Mittermeier et al 2011, Williams et al 2011), the Park houses faunal endemic species as well. While these excellent results preceded the advent of the Gola Forest National Park, they are an irrefutable testament of the striking similarities in species abundance and diversity of the Gola Rainforest National Park and the Gola National Forest on one hand, and the Gola Forest National Park on the other. The brief faunal and floral overviews below provide excellent examples of this natural endowment of species diversity and endemism of the Park.

1.4.1. Faunal overview

A considerable number of excellent biological surveys had been undertaken that identified and documented the diversity of faunal species in landscapes of which the Gola Forest National Park is an integral part, but not necessarily in most of the demarcated forest landscape now known as the Gola Forest National Park. The multitude of faunal species of focus in the surveys of note are 14 amphibians and 4 reptiles (Hillers et al 2013), 41 bats (3 endemic to the Park)(Weber & Fahr 2011, Monadjem & Fahr 2007), 216 birds (identified in the Park alone)(Demey

2012, Fishpool & Evans 2001, Statterfield et al 1998), 700 butterflies (Safian et al 2015, Safian & Collins 2015, Hillers et al 2013, Safian 2011), 90 damselflies and dragonflies (Dijkstra 2013), 20 small and 109 large mammals (Safian 2001, Monadjem 2011) and 9 key landscape species (Hillers et al 2013). All of the species listed here are either endemic, vulnerable, threatened or near threatened. In the Appendix, Tables 3-7 reflect the common and scientific nomenclature of the various faunal species.

1.4.2. Floral overview

Vegetation analysis in Sierra Leone in the Greater Gola Landscape (Cole 1993) and baseline surveys carried out 2005-2007 (Klop et al 2008) in the area showed the diversity of vegetation the Park possesses. The three main vegetation types of the Park can best be characterized as Evergreen, Moist semi-deciduous, and Freshwater inland swamp forest types. Dominant tree species of the Evergreen forest type include *Heritiera utilis*, *Brachystegia leonensis*, *Calpocalyx aubrevillei* and *Sacoglottis gabonensis*. Common in the wet areas of this forest type are *Uapaca guineensis* and *Protomegabaria stapfiana*. Examples of dominant species of the Moist semi-deciduous forest are *Cynometra leonensis*, *Parinari excelsa*, *Parkia bicolor* and *Piptadeniastrum africanum* that are common on moist soils at lower altitudes. Steep rocky slopes are populated by *Erythrophleum ivorense* and *Nesogordonia papaverifera*.

The third main natural forest is the Freshwater inland swamp forest. This forest type predominates on poorly drained soils of inland valleys and seasonally flooded forest along rivers, in both evergreen and semi-deciduous forest. *Raphia* palms may be dominant, and characteristic tree species include *Uapaca* spp., *Nauclea diderrichii* and *Newtonia duparquetiana*. Where and when activities such as farming and logging occurred in any of the main forest types, pioneering species such as *Carapa procera*, *Macaranga barteri* and *Musanga cecropioides* also thrive.

Much of what is currently known about the various tree species in the GGL does not come from the Park. The number and types of trees and a host of other plant species of the Park are not currently known but as a result of a Rapid Assessment Program survey carried out between 28 November and 4 December 2005, a total of 200 plant species were identified, of which 53 (27%) are endemic to Upper Guinea, including three species endemic to Liberia (*Cephaelis micheliae*, *Trichoscypha linderi* and *Sericanthe adamii*). A large liana, *Zanthoxylum psammophilum*, not previously recorded west of eastern Côte d'Ivoire, constituted a new record for Liberia. A *Rhaphiostylis* species likely to be new to science was also discovered (Conservation International, 2007).

1.5. Key Values

To assemble the key values of the Park, the Plan draws on the studies undertaken earlier in the GGL, the GFNP and the Upper Guinea Forests of West Africa. Sufficient baseline inventories of natural resources and socio-economic assessments in Park fringe and adjacent communities, respectively, have to be continued in the Park as officially gazetted. Such research efforts will better inform and reshape natural resource management policies and attempts to protect and conserve the natural diversity of the Park. In the Appendix, Table 8 shows the categories and exceptional values of the Park, taken from the various sources of information as mentioned earlier and further strengthened by review of relevant publications and reports.

1.6. Threats to the Park

The key threats to the Park are commercial and artisanal mining, illegal logging, pit sawing, charcoal production, unsustainable and destructive extraction of non-timber forest products, the lack of appreciation of the ecosystem services forests provide, weak governance at the borders, poverty, uncontrolled hunting and shifting cultivation.

1.7. Vision

In partnership with principal partners, stakeholders and the wider community, the key biological, cultural and globally important habitats, biodiversity and ecological functions of the Gola Forest National Park and wider landscapes are better understood and conserved in perpetuity, through effective governance and a participatory and sustainable management system that delivers current benefits for nature, local communities and, globally, through carbon storage.

1.8. Goal and Objectives

1.8.1. Goal

Conserve and protect the biodiversity, cultural, ecological and environmental functions and values of the Park and its natural resources and support its integrity and longevity through research and the creation of effective co-management arrangements with the FDA, SCNL and local communities.

1.8.2. Specific objectives

- Assemble and introduce an effective conservation and protection strategy and a governance and sustainable management system to mitigate and or interdict threats and maintain the Park's full range of ecological functions.
- Create an enabling environment for local communities to serve as suitably qualified and committed environmental stewards of the critical natural resource base of the Park that supports their livelihoods, through activities that enhance, generate value and materialize the benefits from the Park's forests and sustainable land use practices.
- Develop an open and transparent mechanism, agreed by all partners and stakeholders, to resolving and managing cases of conflict between the effective governance and management of the Park and local communities, and all related disputes and conflicts.
- Develop and maintain a monitoring system based on a comprehensive database of biodiversity, threats and relevant social factors to ensure the availability of accurate, relevant and timely information to guide and enhance Park management and the effective delivery of outcomes.
- Strengthen environmental education and awareness, and increase public understanding and support for biodiversity, cultural and local knowledge systems and the service and product functions of the Park, through training and capacity building.
- Ensure fair and equitable sharing of benefits of improved governance and sustainable management and utilization of buffer-zone forests and forest resources, by identifying and documenting the various benefits and keeping communities informed about such benefits.
- Support integrated land use practices which eventually would stem the expansion of shifting cultivation, by establishing, developing and managing site- and people-specific agroforestry systems and component technologies in Park fringe landscapes and communities, and possibly beyond.
- Monitor and document the impact of the Park on the local environment, economy, and cultural cohesiveness of inhabitants of Park fringe communities, through the conduct of socio-economic assessments.
- Build local institutional capacity to improve environmental awareness and compliance, biodiversity conservation and natural resource governance and management.
- Establish and support community forestry and enhance community-based livelihoods derived from sustainable forest- and agriculture-based enterprises in Park fringe communities.
- Develop ecotourism for the Park's promising ecotourism attractions which have already been identified, through encouraging and promoting sports, recreation, cultural activities and special events in Park fringe communities and beyond.
- Restore deforested and degraded habitats of the Park affected by d farming, human settlements, mining and timber extraction, through assisted natural regeneration, reforestation and other robust methods.

1.8.3. Summary of Main Policies, Actions and Guidelines

Section	Summarized Actions and Guidelines
3.0	Management of the Park
3.1	Management approach: Propose and define co-management as the overall approach to management.
3.1.1	Stakeholder analysis: Identify genuine and the most important groups of stakeholders.

3.1.2	Consultation with communities: Organize and launch a series of workshops with Park fringe and adjacent communities.
3.1.3	Co-management committee and co-management Advisory Board: Formulate co-management leadership hierarchy and elements of the decision-making process.
3.2.1	External boundaries: Select and organize a joint boundary demarcation team to install beacons and signs at key entry points of the 88,000 ha (217,448 acres) Park for periodic maintenance of the already-cleared boundary path.
3.2.2	Park zones: Define and delineate the protected /core, ecological/closed, and administrative zones of the Park.
3.3	Administration and resource management zones: Establish the administration and resource management zones.
3.4	Access to the Park: Integrate the Park into Clan, Chiefdom, District, County and national development plans to ensure participatory action towards improved and regulated access.
3.4.1	Access to and within the Park: Develop and enforce rules on the access and non-access requirements of the Park.
3.5	Cultural and historical sites : Identify, geo-reference , manage and monitor sites of archaeological, cultural or historical significance.
3.6	Habitat restoration: Prepare and implement a plan for rehabilitating/restoring all mining pits, sites of previous human settlements and other degraded areas in the Park.
3.7	Invasive and alien species: Design and implement any effective method(s) available to identify and destroy invasive alien plant species.
3.8	Invasive plant species and climate change: Set up monitoring plots in and around the Park to identify invasive plants and to determine if their numbers are increasing or decreasing with time. Improve the knowledge base on animal and plant ecology in relation to climate change.
3.9	Fire management: Establish and maintain a green fire belt of 100 meters or less on the outer side of the Park and undertake all measures deemed appropriate to avoid and control fire.
3.10	Water management: Develop and implement a plan to rehabilitate deforested and degraded areas in the Park and its buffer zone(s) through reforestation using indigenous species and naturally-assisted regeneration and establish rules for the establishment of vegetative buffer strips of specified width along the banks of rivers .
3.11	Management of wild animals
3.11.1	Human and wild-animal conflict inside the Park: Educate locals (e.g. Trained hunters & herbalists, etc.) to identify and report conflict animals and investigate and record reported incidences of animal attacks on humans.

3.11.2	Human and wild-animal conflict outside the Park: Develop and introduce measures communities must take to avoid encountering conflict animals, or how to act in a conflict situation.
3.11.3	Domestic animals inside the Park: Monitor and prevent visitors from carrying pets in the Park and kill any domestic animals deliberately herded into the Park, even after warning against such a practice.
3.12	Safety precautions while in the Park: Provide public education and create awareness about the likelihood of danger in the Park from wild animals.
3.13	Farming and gardening in the Park: Develop and enforce rules about which crops to grow in the backyards of camps.
3.14	Utilization of products inside the Park
3.14.1	Staff use of products inside the Park: The gathering of firewood (dead wood) will be allowed by Park Rangers but under strict sanctions and monitoring regimes.
3.14.2	Community use of products inside the Park: Set the levels, define the methods, monitor and control the collection of firewood, fallen fruits and nuts and medicinal plants.
3.15	Domestic litter/waste disposal outside the Park: Organize litter/waste disposal practices such as the establishment of communal dump sites and train communities inside and outside the Park in waste management methods.
3.15.1	Waste disposal inside the Park headquarters and zonal settlements: Define what constitutes litter/waste for the public and prepare detailed rules about proper litter/waste management and disposal.
3.16	Mineral prospecting and mining in the Park: Arrest and prosecute anyone/group prospecting and trying to mine in the Park and confiscate the mining equipment and other materials.
3.17	Environmental Impact Assessments (EIAs): Ensure that EIAs are carried out for development in designated zones of the Park and monitor the conduct of EIAs to ensure full compliance.
3.18	Analysis of threats: Design and undertake participatory identification, assessment and avoidance/reduction/interdiction of threats (direct, indirect) to the Park.
3.19	Park map appraisal: Train Park rangers, auxiliaries and selected community members to be able to prepare and interpret topographical maps, using both GIS techniques and Participatory mapping.
3.20	Transboundary engagements: Propose a Transboundary committee to take responsibility for transboundary operational plans on the Liberian side, including consultative meetings with their Sierra Leonean counterparts.
4.0	Research and Monitoring
4.1	Biological surveys, inventories and continuous monitoring: Conduct a series of biological surveys, inventories and monitoring of animal and plant species and their habitats.

4.2	Socio-economic assessment of Park impact: Determine the economic, environmental and social impacts of the Park and Park management on Park fringe and adjacent communities.
4.3	Future research agenda and independent research: Continue biological and social research and accommodate the interest of individuals (consultants, students, faculty, etc.), institutions (universities, colleges, etc.) to undertake various independent studies approved by the FDA.
5.0	Law Enforcement
5.1	Law enforcement operations: Establish intelligence-gathering network to counteract illegal activities and monitor law enforcement measures to improve effectiveness.
5.2	The zone system of management: Adopt the Zone System of Administration (ZSA)
5.2.1	Park anti-poaching strategy: Recommend adoption of the Anti-poaching Model and the use of Watching Dogs to improve the effectiveness of Park security operations.
5.2.3	Patrol teams: Train and build capacity of patrol teams of Park rangers to serve as Rapid Response Units (RRUs) and ensure the minimum number (4) for a team is kept intact.
5.2.5	High profile policing: Design unpredictable, visible policing patrols.
5.2.6	Intelligence-gathering and management: Identify and recruit suitably qualified informers and strictly keep the identity of information sources and informers confidential and protected at all times.
5.2.8	Patrol schedule and organization: Create and strengthen the implementation and supervision of patrol routines and ensure that patrols are conducted by teams under secrecy and according to planned monthly activities.
5.2.9	Patrol secrecy and field rations: Keep details of assignments confidential to rangers until the team departs the base camp and brief the patrol team as soon as it crosses the Park boundary.
5.2.10	GPS data monitoring, data analysis and reporting: Train rangers and auxiliaries in the use and handling of GPS and Microsoft Excel System.
5.2.11	Adaptive Law Enforcement operations: Provide a continually adaptive process in law enforcement procedures for law enforcement staff.
5.2.12	Park operations effectiveness: Conduct SWOT analysis on law enforcement as frequently as necessary.
5.2.13	Firearms control: Train or recruit an expert to train staff of the Conservation Department on the proper handling of weapons encounter situations, both within and outside the Park.
5.2.14	Promotion of laws on wild animals to Park staff: Prepare and distribute copies of relevant forest section laws and regulations to Park staff at recruitment.
5.2.15	Promotion of laws on wild animals to Park fringe communities: Train individuals in Park fringe communities to train others on how to interpret forest laws and regulations relating to the Park, and why people must protect animals and plants.

5.2.16	Police and judicial forums: Organize formal forums annually for the Park management staff and the judiciary to discuss criminal activities around the Park, not just crimes against wild animals and plants.
6.0	Conservation and Environmental Education and Awareness
6.1	Park promotion and conservation awareness: Create and support a Park Conservation Awareness and Promotion (PCAP) program.
6.2	Community Stakeholder Outreach Program: Establish a Community Engagement & Tourism Unit (CETU) to implement the Park's community outreach functions.
6.3	Gender and conservation: Integrate gender into implementation of the Plan.
6.4	Climate change and the national REDD+ strategy: Include climate change issues and Liberia's REDD+ strategy in all outreach activities and link the Plan's conservation agenda to REDD+ initiatives.
6.5	Public relation coverage: Keep the public posted about the importance of the Park and implementation of activities the Plan proposes.
6.5.1	Education and information materials: Prepare and distribute to the public information materials that include brochures, leaflets and pamphlets.
6.5.2	Rural theater campaigns, radio and press coverage: Organize local cultural troupes, local radio broadcasts and press coverage to appeal to and reach the wider community.
6.5.3	Conservation education in schools: Develop education and awareness-building activities focusing on school children and youth groups, as well as teachers in the targeted schools.
6.6	The Gola Forest National Park Conservation Education Center (CEC): Construct a CEC at Park Headquarters or in any suitable park fringe community to serve as a research and training facility.
7.0	Administrative Management of the Park
7.1	Staff recruitment, career progression, and retirement: Design and implement a staff recruitment-to-retirement system for the Park and develop and strictly enforce a professional code of conduct for recruitment and retirement.
7.2	Staff terms of reference
7.2.1	Administrative management prescriptions: Design and implement training and capacity building modules for all staff, in addition to local and international courses, and conferences to equip staff for improved management services.
7.2.3	Staff supervision: Institute appropriate ranking and insignia of staff, instead of the generic term "ranger", and conduct regular staff performance appraisal to reward deserving staff and motivate under-performers.
7.2.4	Personnel management style: Recommend the Human Resources style, a progressively decentralized management regime, as opposed to the currently centralized orientation.

7.3.	Information sharing among Park staff: Create an “open door” communication environment and hold monthly meetings and provide staff with minutes of each meeting.
7.4	Staff training and skills development (In-situ, Ex-situ): Propose protected area management training and capacity building in and outside of Liberia.
7.5	Staff performance evaluation and effectiveness: Introduce the “Target-Based Performance Appraisal” system, to replace the current system of slow leadership and supervisory limitations.
7.6	Staff fitness and etiquette development: Develop a staff fitness building system, introduce it to staff, and develop rules to sustain and maintain the system.
7.7	Staff rotation: Design and implement a fair staff rotational system among the Park zones and teams and be sensitive to the social and related needs of the staff.
7.8	Staff welfare, morale and motivation: Produce a comprehensive staff welfare document on planned actions about how to improve current housing, health, food and transportation conditions.
8.0	Infrastructure and Equipment
8.1	Existing Park infrastructure: Propose basic infrastructure for the Park which it currently lacks. This includes establishment of buildings, camps, headquarters and trails to accommodate and meet the various needs of staff and visitors. What kind of camps? For whom?
8.2	Infrastructure construction and maintenance: Design, construct and maintain toilets, tracks, lodges, trails and a host of other infrastructure to serve Park staff and visitors in the zones and headquarters.
8.6	Vehicles and Equipment: Purchase/procure vehicles (light trucks, motorbikes, and bicycles), camping and field operation gear (GPS units, cameras, compass), audio-visual equipment, computers and so on to be used by Park staff and officials, and visitors such as researchers and tourists. For whom?
9.0	Eco-tourism
9.3.1	Avi-tourism: Define and propose Avi-tourism as the most appropriate and promising type of ecotourism that should be vigorously pursued, as well as cultural tourism (e.g. Tribal customs, dances, handicrafts made by locals, etc)
9.3.2	Caves, rivers and waterfalls: Emphasize and illustrate the Park’s endowment with exceptional aesthetic values such as the Moro River and Vanjeima Falls (in Sierra Leone), and Elephant Falls on the Mano River (Liberia).
9.3.3.	Observation structures: Construct observation structures (towers, feeding stations, and viewing platforms) to entertain and educate visitors. These types of details are not possible in an executive summary, but we must include a guideline in the appropriate management issue in the body of the Plan warning against feeding wild animals in the Park and surrounding landscapes.

9.3.4	Development of trails, tracks and other features at the Park: Develop and ensure that all observation structures of the Park are effectively monitored so as to detect and timely repair any level of damage.
9.3.5	Construction of Park Entrance(s): Construct Park entrance post in a suitable area to serve as the formal entrance to the Park.
9.3.6	Tourist camp development: Construct motels at the County capitals (Bopulo, Robertsport) to accommodate transient visitors to the Park's tourist attractions.
9.3.7	Tourist activities and guide services: Train rangers and other Park staff to serve as tourist guides and monitor and evaluate standards and visitor satisfaction.
9.4	Directional signs: Build and protect signs on the main road to the Park from fire and exercise care to have signs tailored to the local context of the communities where they are installed.
9.5	Visitor safety: Monitor all tourism operations for compliance with safety operations and ascertain that all tourist sites have qualified First Aid assistants, including treatment for snake bites.
9.6	Visitor information and guide services: Prepare and disseminate a variety of publications among tourists such as maps of places visitors may want to go; checklists of birds, mammals, etc.; educational pamphlets, and leaflets on guidelines about health and safety while in the Park.
9.7	Marketing and advertising: Task and encourage the Community Engagement and Tourism Unit (CETU) to market the activities the Plan proposes, working along with the FDA's Awareness Division.
9.8	Code of conduct for Park visitors: Issue a Visitor Code of Conduct to each visitor during registration.
10.0	Implementation of the Management Plan
10.1	Potential funding schemes and opportunities
10.1.1	Co-funding: Propose co-funding since the Park adopts integrated biodiversity conservation, climate change and community development approaches in delivering on its goal and objectives.
10.1.2	Protected Areas Trust Fund: Recommend integration of implementation of the Management Plan with the national REDD+ strategy that is fully supported by the Liberia Forest Sector Project, administered by the REDD+ Implementation Unit (RIU) at FDA's Central Office.
10.1.3	Eco-tourism and research fees at the Park: Recognize the probability of eco-tourism and scientific research becoming potent sources of funds for implementation of the Plan.
10.1.4	Funding and investment in conservation: Propose an international funding/or investment window as a source for funds and encourage more research to identify such opportunities.
10.2	Park staff training and capacity building: Train and improve capacity of Park staff to fully participate in implementation of the Plan.
10.3	The need for an implementation team : Organize, train and fully enable members of the Plan's implementation team .

10.4	Annual work plans and cost estimates: Recommend detailed and thorough planning efforts for each year's activities in the 5-year planning horizon.
10.5	Monitoring, Evaluation and Updating the Plan
10.5.1	Monitoring progress: Conduct internal assessment on the activities the Plan proposes overall, Annual Work Plans, and Quarterly Park Management Meetings(PMM) to review progress and overall performance of the Park.
10.5.2	Evaluation of management performance effectiveness: Propose and implement the Management Effectiveness Tracking Tool (METT) and Social Assessment of Protected Areas (SAPA) as approaches for evaluating management effectiveness and to measure and analyze social impacts, respectively.
10.5.3	Updating the Plan: Recommend review of performance and continuous monitoring as pre-requisites for modifying planned activities.
10.6	Implementation milestones: Prepare management objectives, associated actions, and timelines for the first 5 years.

1.8.4. Purpose of the Plan

This plan is designed to serve the Forestry Development Authority (FDA), its staff at the Gola Forest National Park and other implementing partners as a manual to guide the various stakeholders how to conserve and protect the park and its biodiversity. It provides a vision that everyone involved in its implementation should aim to achieve. The Plan has been made as simple and straightforward as possible and the objectives are realistic and achievable. The Plan conforms to the forest sector policies and laws of Liberia as it briefly outlines and examines such policies, actions and guidelines which may be revised or superseded during its lifespan.

1.8.5. Period of validity of the Plan

This plan is assembled for implementation over a five-year period – from the beginning of the FDA Operational Year in 2019 to 2024.

1.9. Guiding Principles

Over and above the management objectives of protected areas, the 3Cs forest management policy and the National REDD+ Strategy, it must be said here that the GFNP, as is generally true for all national parks worldwide, must be managed for ecosystem protection and recreation (IUCN 1994). However, it is recognized that national parks must also pay keen attention to and provide for the legitimate needs of all stakeholders, the park fringe communities among them, by generating a rich assortment of intangible and tangible benefits and resources.

For purposes of the Park, management will embody FDA's conservation value and at such will consider the (a) resource abundance of the Park, diversity and complexity of the ecological and social systems of the Park and its wider landscape, and (b) interdependency of the elements constituting the Park's landscape, the associated biotic and landscape diversity, and the aesthetic, cultural, educational and spiritual attributes, and local knowledge systems. Additional guidelines are therefore necessary on a range of pertinent issues and concerns and these are listed below.

1.9.1. Feasibility principles

Park management will adopt the following as feasibility principles:

- **A precautionary approach.** As stipulated by the National Forest Management Strategy (2007), the FDA shall take a precautionary approach to the exercise of its power and authority to protect the environment, and shall not rely on a lack of full scientific certainty as a reason for postponing cost-effective measures to prevent environmental degradation where there are threats of serious or irreversible damage to the environment;
- **Maintenance of system integrity.** Under no condition should the ecological, scientific, aesthetic and socio-cultural integrity of the Park or any park for that matter, be compromised in the long-term in order to satisfy short-term needs. System integrity, composition and function are defined as the desired state of the Park;
- **Cost-benefit analysis.** As much as possible, the benefit/cost ratio of park management must be positive;
- **Determination and evaluation of the potential influence of resource utilization.** The thresholds of concern for use of affected species, heritage resources, cultural landscapes and ecosystems must be determined and evaluated with appropriate methodology that takes into full account the effects of resource use and conservation on population dynamics, ecosystem functioning and social and cultural values. This must be achieved in an integrated manner, incorporating all relevant scientific, formal and informal information and knowledge, including traditional knowledge and;
- **Adequate capacity.** Appropriate human and financial resources must be made available to govern, manage, monitor and regulate resource use.

1.9.2. Park management effectiveness

Many protected areas adopt systems such as Protected Management Effectiveness Tracking Tool (METT) to assess their overall performance annually. In addition to METT, this Plan proposes SAPA (Social Assessment for Protected Areas), a methodology designed to assess the positive and negative impacts of a protected area and related conservation and development activities on the wellbeing of communities living within and around the protected area (local benefits and costs). It is a multi-stakeholder assessment for use by managers of protected areas working with communities and other local-level stakeholders, as well as supporting organizations at the national level to help increase and more equitably share positive social impacts and reduce negative social impacts (Franks & Small 2016).

1.9.3. Community engagement

This will take the form of:

- **Cultural Heritage Preservation:** To preserve, and wherever possible utilize, for human enrichment, cultural resources associated with the Park, while complying with and effectively using national, county and traditional legislations, rules and procedures.
- **Community Outreach (Constituency Building):** To build an effective constituency at all levels in Liberia and abroad, which fosters and enhances sustainable public support for the Park's objectives and actions, and for conservation in general. The Park authorities and other statutory or governing bodies have an obligation to facilitate the involvement of local people in shaping management decisions. By local people is meant the wider community in and around the Park as well as others who have a keen interest in the Park. Finally, locals have a responsibility to be actively involved in the management process so as to take ownership of the Park.
- **Direct Human Benefit:** To provide benefits, particularly in the sense of "benefits beyond boundaries", to meet or exceed reasonable expectations and foster partnerships, in a spirit of equity redress.
- **Regional and international co-operation:** A number of issues in the forestry sector can only be addressed effectively at the international level. Therefore, it will be important for Liberia to agree on these issues with neighboring countries (Sierra Leone, Guinea and Cote d'Ivoire).

1.9.4. Sustainable resource management and environmental responsibility

The two pillars of National Parks, including this Park — conserving and enhancing the natural beauty of parks, wildlife, and cultural heritage, and promoting opportunities for the understanding and enjoyment of the special qualities by the public—are inextricably linked to the principle of sustainability. As such, an over-riding objective for this Management Plan will be that the Park is managed to protect, maintain and, where possible, restore natural areas within the Park through defined management zoning aimed at preserving the intrinsic and extrinsic values this scarce resource offers for present and future generations.

1.9.5. Social inclusion

Liberian forest sector policies and legislation, especially the 3Cs policy, Forest Reform Law (2006) and Community Rights Law with respect to Forest Lands (2009) envision that National Parks will be enjoyed and cherished by a full cross section of society, with emphasis on local communities. For this and related requirements, the FDA and her partners are required to engage more effectively with the socially and physically disadvantaged, ethnic minorities and other groups which have not traditionally enjoyed the parks so far established in the country. All management activities of the Park should fulfill the requirements of these policies and laws.

1.9.6. Benefit sharing and livelihood improvement

As part of its contribution to the achievement of the Sustainable Development Goals (SDGs), especially in terms of reducing poverty, protecting the environment and increasing food security, Park management activities will promote livelihoods and conservation-fostering income-generating activities, especially in park fringe and adjacent communities, as a key management responsibility. However, the Park will reserve the right to choose which resources to make available and how much, as well as the right to withdraw use if necessary (i.e. the use of a resource does not automatically constitute the source as being permanent).

2. POLICY FRAMEWORK

2.1. National Policy Instruments

2.1.1. Constitution of Liberia

The 1986 Constitution of the Republic of Liberia, provides for public participation in the protection and management of the environment and natural resources of Liberia.

2.1.2. National Forest Reform Law

The **National Forest Reform Law (NFRL) (2006)** mandates the FDA to “assure sustainable development of the Republic’s Forest Resources, protection of the Republic’s economy, with the participation of and for the benefit of all Liberians.

2.1.3. National Forestry Policy and Implementation Strategy

The National Forestry Policy and Implementation Strategy (2007), in which the FDA adopts the ‘3Cs’ concept to promote integrated and balanced forest management practices for Conservation, Commercial and Community uses of the country’s forests.

2.1.4. Community Rights Law

The Community Rights Law with respect to forestlands (CRL 2009) is meant to ensure the full and interactive participation of local communities in the sustainable management of the country’s forests.

2.1.5. Expansion of the Protected Areas Network

Expansion of the Protected Areas Network (2002) that resulted in a MoU signed by the Government of Liberia and Conservation International to create additional protected areas by setting aside 30% of Liberia’s forests for conservation.

2.1.6. Wildlife and Protected Area Management Law

The Wildlife and Protected Area Management Law (2016), aims to govern the management of wildlife resources within and outside protected areas (PAs).

2.2. International Agreements and Conventions

2.2.1. Convention on Biological Diversity

Convention on Biological Diversity (CBD), aims to conserve biological diversity, sustainable use of its components, and ensure the fair and equitable sharing of the benefits arising from commercial and other utilization of genetic resources.

2.2.2. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

The convention aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

2.2.3. Convention on the Conservation of Migratory Species of wild animals (CMS)

The convention aims to conserve terrestrial, marine and avian migratory species throughout their range.

2.2.4. International Plant Protection Convention

The International Plant Protection Convention (IPPC), aims to protect the world's plant resources, including cultivated and wild plants by preventing the introduction and spread of plant pests and promoting the appropriate measures for their control.

2.2.5. Ramsar Convention

Convention on Wetlands (popularly known as the Ramsar Convention), provides the framework for national action and international cooperation for the conservation of wetlands and their resources.

2.3. Governance Context

Each village belongs to a Chiefdom and a District and has a Paramount Chief and a Commissioner appointed by the President of Liberia. The Clan Chief is selected by the Paramount Chief, while the General Town Chief is selected either by the Commissioner or the Paramount Chief. Town Chiefs are selected (or elected) by the community. The GFNP lies in Sokpo Clan in Kporkpa District, Grand Cape Mount County and Tonglay Clan in Gbarpolu County. The relatively high proportion of 'strangers' (people from outside a village, often migrant workers) complicates monitoring and maintenance of civil law and order as such people regularly travel back and forth across Liberia or to neighbouring countries and so often escape any control or punishment for wrong doings. All permanently settled communities create local bylaws but the imposition of these depends to a large extent on the strength and personality of the Town Chief. Table 9 in the Appendix is the list of the 51 towns and satellite villages of park fringe and adjacent communities.

Currently, there are about 28 settlements in the Park. Due to the series of consultative dialogues held with settlers in the Park, many expressed willing to leave the Park voluntarily without conditions, others say they will only leave if they are "fairly" compensated. The group that asked for compensation consists of individuals who have established plantations of cash crops such as coffee, cocoa and oil palm in the Park. The Plan recommends that Park Management negotiate with all settlers to continue to relocate themselves voluntarily, and that this activity should be organized and administered by the Co-management Advisory Body. Partners and stakeholders of the Park should be consulted to lend support to the process of negotiation and voluntary relocation. The Body, among others, could assess the claims for compensation and decide what compensation is fair and just.

2.4. National Context

As a signatory to the Convention on Biological Diversity, Liberia pledged at least a 10% set-aside of her suitable landscape(s) for Strict Protection and 30% of protection and multiple-use. Creation of the Gola Forest National Park (88,000ha), is a laudable response. The other National Parks and Nature Reserves that had been gazetted are the Sapo National Park (180,363 ha), East Nimba Nature Reserve (13,500 ha), Lake Piso Multiple Use Reserve (33,419 ha), Wonegizi Nature Reserve (37,979 ha) and Grebo-Krahn National Park (96,149 ha). Efforts must be stepped up to create more reserves and parks in the face of the unprecedented threats Liberia's remaining forests face. GFNP is the third largest existing National Park in Liberia.

2.4.1. Demography and ethnicity

The size of villages and the number of people per village in and around the GFNP vary considerably from small hamlets of as few as 6 individuals to large towns of up to 3,460 people, but more than 50% of these settlements have fewer than 100 inhabitants. Overall, these population figures suggest a relatively low population density. There are two types of communities: those that are largely permanent and stable and have developed retail services, palm oil production and more established houses (with zinc roofs); and those that can be considered unstable/transient which are newly established or only inhabited in the dry season when mining activities take place.

Most communities are of mixed ethnicity. No villages exist in isolation, instead there is a complex network typically with a larger village acting as a centre, politically, economically or socially, for nearby villages. Mende is the common language spoken in most communities. However, people of Gola descent still use the Gola language for societal and political gatherings. The majority of the population is either Muslim (46%) or Christian (44%) (RSPB 2017).

2.4.2. Community engagement and involvement

Through programs such as Across the River – Transboundary Peace Park for Liberia and Sierra Leone (ARTP) and GolaMa, SCNL, in partnership with her counterpart in Sierra Leone, Conservation Society of Sierra Leone (CSSL), builds and nurtures a rewarding relationship with park fringe and adjacent communities, and traditional and local government authorities for nearly a decade. Among the objectives of GolaMa, for example, are to (i) Establish Community Forest Management Agreements (CFMAs) and financial sustainable business plans; (ii) Ensure forest-dependent communities are benefiting from new, sustainable, alternative income generating activities under CFMAs, while contributing to forest protection; (iii) Reduce bushmeat hunting/trading of protected species in the project area and hopefully beyond; and (iv) Determine the potential of carbon trading to provide sustained funding.

Networks of more than 85 Livelihood Groups, Nature Clubs in schools and Local Conservation Groups have been successfully organized by CSSL and SCNL to provide a broad platform that helps these two conservation NGOs to plan and implement various activities, including sensitization of communities on the wise use of forests, while communities use the platform to directly share their opinions, wishes and concerns about the Park with SCNL and, more indirectly, with the FDA. Feedback from communities made possible through networks initially created to plan and implement conservation programs in the Greater Gola Landscape in general and the GFNP in particular, informs the planning process of the Management Plan and its eventual implementation. It also fosters and strengthens community engagement and participation in current and future park management activities. These efforts are an approach to FPIC, which have significantly contributed to a successful planning process and to the Plan's successful implementation ultimately.

2.4.3. Agricultural system

Slash and burn agriculture is the most dominant farming system and has been practiced in Liberia about a century or more. When land is cleared of vegetation as one of the major activities of the mixed cropping system, it is often planted in rice and other crops such as cassava and corn. Backyard gardens are also established with crops such as banana, coconut, oil palm, plantain, sugarcane and vegetables. Animal husbandry is the least practiced due, in part, to the lack of breeding stock to reconstitute the herds.

2.4.4. Institutional context

The Forestry Development Authority (FDA) is the sole government agency responsible for managing forest resources in Liberia, including protected areas. The main focus of FDA is to serve as custodian of the forest estates of Liberia consistent with the three C's (Conservation, Community and Commercial) approach and the Forestry Reform Law of 2006. Direct oversight of the country's PAs is the responsibility of the Conservation Department of the FDA, whose objective is to conserve biodiversity and maintain resource benefits for locals.

2.4.5. National-scale forest management support

While there has been significant support for Liberia's forest conservation endeavors almost entirely by the international community, much has been achieved by government agencies and ministries working in tandem with international conservation NGOs to get the job done. Since 2001, for example, the FDA, Ministry of Planning and Economic Affairs, and the National Environmental Commission of Liberia have teamed with Conservation International and FFI to undertake a national-level forest re-assessment and updating of the Liberian protected forest system.

2.5. International Significance

2.5.1. The Liberia-Sierra Leone Transboundary Cooperation.

Liberia's GFNP and Sierra Leone's GRNP represent a significant continuous portion of the Upper Guinea Forest ecosystem. The impacts of conservation efforts and community outreach work will be more effective if conservation efforts in the two forest reserves are coordinated. Indeed, such a Transboundary conservation initiative was identified as the highest priority conservation area in the Upper Guinea Forest conservation strategy published in 1999 by Conservation International.

2.5.2. An internationally recognized biodiversity hotspot

As of 2010, over 161,000 protected areas exist worldwide, and more are added each day, representing between 10% and 15% of the world's land surface (Soutullo 2010). Each of these protected areas contributes in its own way to sustaining life on Earth, including the health and well-being of humans. In addition to its key values, the Park is an integral part of one of the world's 35 biodiversity hotspots, the Upper Guinea Forests of West Africa. Clearly, the Park has national, regional and international significance as a protected landscape.

2.6. The National Environmental Commission and Environmental Policy and Acts

In the policy arena, UNDP began support in 2002 for the creation of the:

2.6.1. National Environmental Commission of Liberia (NECOLIB)

The Commission whose initial mandate includes establishing an overall national environmental policy framework. NECOLIB prepared a national environmental policy, the Environmental Protection and Management Act (EPMA) and the Environmental Protection Agency Act. The Environmental Commission and Act were published in May 2003.

2.6.2. Liberia's National Biodiversity Strategy & Action Plan (NBSAP).

The first NBSAP was completed in June 2004, with UNDP-GEF support. Since then, it has been undergoing a series of reviews and revisions. The latest review was in January 2017 when a team of local experts met in Tubmanburg to review and validate the document.

3. MANAGEMENT OF THE PARK

3.1. The Management Approach

Co-management is the overall approach to Park management. An increasing body of published experiences reveals that as a joint management of the commons, co-management arrangements are often formulated in terms of power sharing between the state and the community of renewable natural resource user groups in developing countries (Ross et al 2012, Dressler et al 2010, Borrini et al 2004). In practice, and the Plan takes this fact into account in the activities it proposes, there often are multiple local interests and multiple government agencies. As a result, co-management can be hardly considered as the interaction of a unitary state and a homogeneous community.

Co-management approaches, such as community-based natural resources management, critics claim, had reached a crisis of identity and purpose, and a host of theoretical and practical limitations (Zulu 2008, Blaikie 2006, Carlsson & Berkes 2005, Tosum 2000) when interaction is assumed to be between a unitary state and a homogeneous community. This Plan correctly views co-management as a continuous problem-solving process that involves extensive deliberations, negotiations and joint learning within problem-solving networks. Among the critical elements of successful co-management arrangements for our purpose are identification of genuine and key stakeholders and their interactive participation in decision making, community engagement through consultative dialogue(s) (Franks & Small 2016, FFI 2013a, FFI 2013b, Ross et al 2012), identification of human settlements and other forms of encroachment as manifestation of threats to the Park, and formulation of a co-management committee and its Advisory Board.

3.1.1. Identification of key and genuine stakeholders

An initial stakeholder analysis has already been done in an attempt to identify all stakeholders who can be affected by or could impact upon the management of the Park. This analysis has to be further examined and finalized within the first few months of implementation of the Plan. See Table 10 in the Appendix for the list of stakeholders, their likely interest in the Park, effect of the Park and its management on their interests and the capacity or motivation for participation.

3.1.2. Consultation with communities

Park management will organize and launch a series of consultative workshops with park communities in both Gbarpolu and Grand Cape Mount Counties. All inhabitants of settlements in and around (far, near) the Park need to know and understand the importance of the Park as embodied in its intrinsic and extrinsic values that are outlined and briefly examined in the Plan. Participatory consultation is pivotal to successful co-management arrangement(s) and should be among the first set of activities Park management needs and will to undertake.

3.1.3. Formulation of a co-management committee and the creation of a co-management Advisory Board

Management Issue No.1. Formulation of a Co-Management Committee and Creation of a Co-Management Advisory Body	
Policies	Actions and guidelines (Ag)
The Park will be governed and managed through co-management arrangements and by a co-management committee in which the FDA, Communities and the SCNL will be represented as key members and stakeholders.	<p>Ag1. The FDA, in tandem with community representatives and the SCNL will convene a meeting to draft and implement guidelines about how to identify and elect members of the co-management committee and to define their duties, responsibilities and roles.</p> <p>Ag2. Encourage an inclusive process that takes on board the concerns of each stakeholder group as represented in the co-management committee, including those identified as the weakest.</p>
There will be an Advisory Board to administer the affairs of the co-management committee.	Ag3. Develop criteria to identify and <u>elect/select</u> members of the co-management Advisory Body, ascertaining that each of the 3 stakeholder groups is represented.
Co-management is a complex social experiment and as such, good and effective communications are a must and are to be developed and implemented.	<p>Ag4. Develop effective communications systems and implement a process of dialogue that is facilitatory, not manipulative.</p> <p>Ag5. Maintain regular contacts with the appropriate local communities and other stakeholder groups about current and planned activities.</p> <p>Ag6. Communicate the values of the Park to Park fringe communities and beyond.</p> <p>Ag7. Structure and define the membership, duties, roles and responsibilities of a Grievance Redress Committee to tackle challenges to successful co-management arrangements and processes in the implementation of the Plan.</p>
Effective Co-management Agreements will be developed by locals in appropriate Park fringe and adjoining communities.	<p>Ag8. Assess current land use systems and design interventions to remove /mitigate damaging / unsustainable activities.</p> <p>Ag9. Train, build capacity and raise awareness about the importance of co-management and the implementation of co-management agreements.</p> <p>Ag10. Strengthen traditional governance structures for effective participation in the management of the Park.</p>

	Ag11. Incorporate joint patrolling, joint research and monitoring, mechanisms for reporting of illegal activities and define the extent of natural resource use as key elements of Co-management Agreements.
Existing and potential income generating activities from agriculture and forest-based enterprises in selected zones of the Park will be identified and examined periodically in search for viable, profitable and sustainable livelihood activities by residents of Park fringe communities.	<p>Ag12.Appraise the opportunities for agroforestry ‘value added’ activities, including development of a Gola ‘brand’ for products originating from the Park in both Liberia and Sierra Leone.</p> <p>Ag13.Where necessary and possible, create cooperatives of smallholder farmers and land owners to enable increased trade and income.</p> <p>Ag14.Develop and promote nature-based tourism destinations of the Park’s most promising aesthetic and scenic attractions and other streams of local employment and income generation.</p> <p>Ag15.Promote the already successful micro-loan and fishpond schemes to other communities in and adjacent to the Park, including any other additional innovative endeavor(s).</p>

3.2. Natural Resource Governance and Management

3.2.1.External boundary demarcation and maintenance

Management Issue No.2: External Park Boundary Demarcation and Maintenance	
Policies	Actions and guidelines
External boundaries of the Park will be clearly demarcated with correctly numbered concrete pillars, signposts and other proper signage installed at appropriate points, and in the right direction.	<p>Ag16.Identify and select members of a joint boundary demarcation team to consist of the affected local communities, FDA rangers and district authorities to demarcate the external boundaries of the Park.</p> <p>Ag17.Train the members of the demarcation team and include representatives of NGOs and civil society groups for independent observation.</p> <p>Ag18.Take accurate records of the positions of the boundary and the pillars with their GPS waypoints to identify possible differences within gazetted description. These positions can be used to make corrections when necessary.</p>
Legal boundary description must be matched with the situation on the ground.	Ag19. Gazetted descriptions should be written in metric units, with decimal degrees, to conform to international

	<p>standards and should provide the coordinates of boundary pillars so that they can be easily located with a GPS. There is a strong possibility that because of differences in cartographic standards, the gazetted area of the Park may not correspond to ground demarcation.</p> <p>Ag20.Construct boundary pillars and put them in the correct positions according to the standards set by the FDA.</p> <p>Ag21.Undertake annual boundary maintenance activities. Contracts for this purpose should be made with adjoining local communities under the supervision of Park rangers. Laborers should be paid according to standard labor rates. This will help promote seasonal employment and collaboration with respect to the boundaries by local people.</p> <p>Ag22. A 2-meter wide strip of the vegetation growing in the boundary should be cleared each year, starting with areas with thick bushes within the first quarter each year, by cutting the grasses, shrubs and other types of vegetation close to the ground and by pulling out roots where possible.</p> <p>Ag23. Carefully select and plant in the boundary tree species that can grow well, can be easily obtained and with spreading crowns. Such trees can suppress weeds, reduce maintenance cost and efforts and help as a natural firebreak. Identification of trees with the desired characteristics will be among the first key research activities. Trees should be planted at 25-meter intervals on the inside edge of the boundaries to provide clear evidence of boundary location.</p> <p>Ag24.Institute other relatively cheap, innovative and effective methods of boundary line maintenance such as encouraging honey producers to place their hives in the boundary line for maintenance; they are highly likely to ascertain a fire-free boundary line.</p>
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3.2.2. Definition and Establishment of Park Zones

Zones reflect intended land uses, existing patterns of use, the degree of human use desired, and the level of management and development required (Rotich 2012, FFI 2006). Often, where there is not enough information about a Park or any other type of protected areas, and this holds true for the Park, zoning is done as one of the first set of activities of management plan implementation. It allows areas to be set aside for particular activities such as protection of key habitats or nursery areas and breeding sites, research, education and tourism.

The two main categories of zones suitable for the Park are (i) Park protected or resource management zones, and (ii) Administrative zones. Core and closed zones, and development zones, as outlined and briefly examined below, are examples of resource management and administrative zones, respectively.

- **Park protected zones/core zones:** Zones in which human activities are forbidden, except those that include patrolling, research, and nature-based tourism. These zones are established in areas that are the least altered by human activities, are largely intact in their species composition and are of prime conservation value. The purpose for identifying and establishing core zones is to protect the natural qualities of the Park. Possibilities are that these zones could be identified in various parts of the Park, and this may also hold true for the following types of resource management zones:
- **Ecological or closed zones:** Highly ecologically sensitive sites where any infrastructural development or visitor pressure would have negative impact. Areas confirmed as natural habitats for keynote species (e.g. Elephant, Chimpanzee, Pygmy hippopotamus) are prime examples of closed zones. These zones are often located along river banks and tributaries, wetlands and uplands. Maximum protection from human interferences is the purpose for setting aside these particular types of zones.
- **Development zones:** Zones established to provide areas for administration buildings and visitor support services, among others. Sapo National Park, for example, has 3 administrative zones, and each is headed by a Zone Warden and managed as a subset of the Chief Warden's administration. In addition to these zones, a town/village or a land in a given community has to be carefully selected and set aside, following the community's endorsement and FDA's approval, to serve as Park Headquarters.

Administrative and buffer zones and conservation corridors are outside park boundaries in terms of the resource management zones of the Park. However, these zones must be considered as an integral part of the management plan because specific management activities must be carefully defined and undertaken for these areas. How landscapes around the Park are governed and managed will by and large determine the level of management success. In buffer zones, agreements must be reached with the concerned communities with Park management about the activities that are allowed and those that are prohibited.

There also could be resource management zones (probably immediately adjacent to villages) where limited subsistence and commercial operations are allowed such as the establishment of fishponds, agricultural operations (including agroforestry systems and component technologies), all guided by Co-management Agreements. What all of this means is that no area(s) around the Park, forested or not, will and should be left as 'open access' in which anyone undertakes any activity and where no one or group bears responsibilities to Park Management. Given the existence of settlements and farms in the Park, participatory zoning is considered necessary. It, in policy and practice, promises to link customary and scientific knowledge systems while building alliances among groups with competing interests (Healey 1999, Rowlands 1933).

3.3. Administrative and resource management zones

Management Issue No.3: Establishment of Administration and Resource Management Zones	
Policies	Actions and guidelines
<p>Boundaries for all zones of the Park will be clearly defined and maintained.</p> <p>The minimum number of management zones has been declared by Law, but management must determine the number of zones on the basis of site- and people-specific realities for a given park, including the GFNP.</p>	<p>Ag25. Train and build the capacity of selected Park staff on GPS techniques and the conduct of participatory mapping exercises.</p> <p>Ag26. Employing GPS techniques and participatory mapping exercises, define and lay out boundaries of all management zones (e.g. administration, resource management, buffer, etc.) of the Park.</p> <p>Ag27. Prepare a map of all zones and present and discuss the map with members of the Co-management Committees and the Co-management Advisory Body.</p>
<p>Park staff housing and facilities will be constructed in each zone comprising the Development Zone.</p>	<p>Ag28. Prepare a blueprint for staff housing and facilities for each of the administrative zones.</p> <p>Construct staff housing facilities and discuss management responsibilities of housing units with potential occupants.</p>
<p>The Park headquarters will be established on a suitably qualified site.</p>	<p>Ag29. Identify and select members of a committee to develop criteria for identifying and selecting the best location of Park Headquarters.</p>
<p>The Park's resource management zones (closed, protected) will be defined.</p>	<p>Ag30. Identify, select and recruit a professional or a group of suitably qualified professionals to identify and select resource management zones.</p> <p>Ag31. Demarcate and map out each resource management zone and prepare a management plan for each.</p>
<p>Logging concessions and agro-industrial tree plantations of any size would only be established within a reasonably acceptable radius around the Park. Park management, adhering to co-management arrangements on this issue, will decide the size of the reasonably acceptable "protective radius".</p>	<p>Ag32. Petition the Legislature to enact a law against the establishment of logging concession or agro-industrial tree plantations (e.g. oil palm, rubber, etc) within any administrative and resource management zone of the Park, including in the buffer zone, Park headquarters and surrounding villages, and adjacent landscapes.</p>

3.4. Access to the Park

The Park is primarily accessed on foot along small bush roads from forest edge villages. On the north-eastern side of the Park is a dirt road linking Tima village, SLC, Camp Alpha and Kungbor; it, however, is often inaccessible to vehicles during the rainy season. On the South-western side of the park, there is a dirt road passing through butter Hill to Gbanjul into GFNP. This road is accessible to motorbikes. Further south, the road to Camp Israel is only accessible to motorbikes for the last section. The Park will be integrated into Clan, Chiefdom, District, County and National development plans to ensure participatory action in the improvement of access roads to the Park and the Park HQ.

3.4.1. Access to and within the Park

Management Issue No.4: Access to and Within the Park	
Policies	Actions and guidelines
Only authorized persons from Park fringe communities and beyond will be allowed entry into the Park.	Ag33. Develop rules on the access and non-access condition of the Park with community-elected, park management-endorsed representatives on the Clan, Chiefdom, District and County levels.
Individuals or group access to the Park to visit cultural and historical sites or for any other purpose will be organized, allowed and controlled by Park rangers and a selected team of community representatives, supervised by the Park Warden.	Ag34. Develop rules to govern the access to the cultural and other historical sites of the Park. Ag35. Reinforce the rules of non-access and access to the Park as crafted by the various actors on the various levels (see Ag33).
The Park will be integrated into Clan, Chiefdom, District, and County development plans to ensure participatory action in the improvement of access roads to the Park and the Park Headquarters.	Ag36. Prepare simple and practical plans on access roads to the Park with representatives on the Clan, Chiefdom, District, County and National levels in a given zone. Ag37. Implement all plans on access roads to the Park per zone, including that to the HQ, with supervision of Park rangers and the Park Warden.
A network of trails of varying dimensions will be laid out inside the Park during the 5-year implementation period of the management plan.	Ag38. In consultation with stakeholders and partners, organize a team to define the areas in the Park through which the network of trails is to be laid out. Ag39. Ascertain that suitably qualified individuals for laying out trails from all sectors in each zone of the Park are identified, selected and trained for informed and better participation.
Political representatives, county authorities, traditional leaders, community representatives and Park and Zone Wardens will interactively participate in the decision-making process on access to and within the Park.	Ag40. Plan and carry out a series of periodic visits to the Park by representatives from each of the leadership hierarchies as listed (i.e. National political leaders, County authorities, Park and Zonal Wardens, traditional leaders, community representatives, and others).

3.5. Identification and management of historical and cultural sites

Currently, the only site reported as having some cultural or archaeological importance is a cave in the Park that used to house a colony of fruit bats (*Rousettus aegyptiacus*). People usually visited the cave annually (November-December). Increased hunting levels, caused by increased demand for bushmeat, depleted the colony. It is expected that, with time, former settlements within the Park that may be hundreds of years old could be identified and locals may request protection of such sites for cultural purposes. Such requests may be granted only after thorough investigation and confirmation. Carrying out any activities on these sites will be reviewed by a Grievance Panel of stakeholders before the Chief Park Warden's action (approval, disapproval).

Management Issue No.5: Identification and Management of Cultural and Historical Sites	
Policies	Actions and guidelines
<p>Archeological, cultural and historical sites (e.g. sacred sites, old graves, caves, old settlements) found in the Park must be protected from any changes in their natural status, and no part of such sites will be removed except by orders of the Administration of the National Museum.</p> <p>It is highly likely that additional cultural and historical sites will be discovered within the boundary of the Park. Communities will be encouraged not to relocate such sites since their presence in the Park will serve as an incentive for locals to protect the Park.</p>	<p>Ag41. Educate and create awareness in Park fringe and adjacent communities about the significance of archeological, historical and related sites in the Park and adjacent landscapes. These sites can serve as an incentive for locals to protect the Park and support Park management activities.</p> <p>Ag42. Conduct a meticulous archeological inspection in the Park and its buffer zones to identify, geo-reference, demarcate, and place notices at each of these sacred areas.</p> <p>Ag43. Build capacity of the staff of the National Museum, a selected number of Park staff and community members to be able to identify, store and interpret structures of cultural and historical significance.</p> <p>Ag44. Create and support a Grievance Panel to Address potential conflict issues associated with cultural and historical sites.</p> <p>Ag45. Monitor the level of disturbance of research and tourism activities at cultural and historical sites and if disturbance is unacceptable, the policy regarding cultural sites must be adapted immediately. An administrative and technical team from the FDA and Museum staff should review the policy on cultural sites as frequently as may be deemed necessary.</p> <p>Ag46. Potential developments at any site in the Park should be preceded by a careful archaeological inspection of the site. If any relic is found, the advice of the National Museum should be sought immediately.</p> <p>Ag47. Include archeological and cultural sites in all park patrol and control regimes.</p>
No new burials will be permitted in the Park and its immediate buffer zones.	Ag48. Enact and enforce rules against new burials in the Park and its buffer zones and integrate such rules in the no-access rules of the Park (Ag33, Ag34, and Ag35).

3.6. Habitat Restoration

Because of the illegal alluvial gold mining activities in the Park, there are many areas of disturbed vegetation. These are mainly pits filled with stagnant water or cleared campsites of varying sizes and human settlements. The specific numbers, sizes, locations and conditions of these sites are not known and should be determined and assessed.

Management Issue No.6: Habitat Restoration	
Policies	Actions and guidelines
Determined efforts will be made to rehabilitate all habitats degraded by mining and related activities.	<p>Ag49. Identify and record with GPS the location of all mining pits, degraded vegetation areas and human settlements in the Park.</p> <p>Ag50. Conduct an environmental analysis of all recent mining and related activities such as human settlements, with a view towards preparing a rehabilitation plan.</p> <p>Ag51. Prepare and implement a rehabilitation plan for all mining pits and degraded vegetation areas.</p>
For a number of years beyond the validity of this Plan, all degraded vegetation areas will be allowed to recover naturally.	<p>Ag52. Monitor and document the progress of recovery of each degraded area and ascertain that further degradation does not occur.</p> <p>Ag53. Develop and implement a plan to revegetate degraded sites with some indigenous tree species to encourage and speed up natural regeneration.</p>
In areas where damage is extensive, other measures will be taken towards recovery.	Ag54. Carry out low-scale enrichment planting of indigenous tree species if damage is extensive.

3.7. Invasive and Alien plant species: As a natural ecosystem, the Park's indigenous species of wild animals and plants must be maintained and protected. Alien plant species will not be allowed to thrive in the Park. Mining and other activities that deforest and degrade the forest open up opportunities for other plant species that are alien and invasive and these can colonize the site.

Management Issue No.7: Invasive and Alien Plant Species	
Policies	Actions and guidelines
Invasive or otherwise, alien plant species must be kept out of the Park and its buffer zone by all means possible.	<p>Ag55.Identify and document any number of alien plant species that may be thriving in the Park and in its surrounding landscapes.</p> <p>Ag56.Use the most effective method(s) available to science to destroy an invasive plant, making sure that such methods do not involve the use of chemicals (e.g. herbicides,weedicides,etc) and fire.</p> <p>Ag57. Identify the sites populated by alien domestic plants and determine whether alien plants are dying naturally or are spreading in certain areas in the Park.</p>
The use of chemicals (herbicides, weedicides, etc.) and fire in the Park, as measures to control or exterminate alien plants, is prohibited.	<p>Ag58. Conduct public awareness about the negative impacts of alien plant species on the existence and integrity of the Park.</p> <p>Ag59. Develop and employ efficient, cost-effective and environmentally sound and acceptable methods to keep alien plant species from entering the Park and to exterminate those which might be found in the Park and surrounding ecosystems.</p>

3.8. Invasive plant species and climate change

Climate change presents the threats of increasing temperatures and reduced rainfall that will definitely harm the Park, a tropical rainforest ecosystem, and may also affect flowering and fruiting patterns. Climate change is expected to favor invasive plants over native vegetation. Pest plant species currently restricted to lowlands, for example, can also be expected to move into higher altitude areas (McFadyen 2007). Reducing stresses on the Park's natural systems could build its resistance to climate change, as studies of other parks have reported (Dunlop & Brown 2008).

Management Issue No.8: Climate Change and the Potential Spread of Invasive Species	
Policies	Actions and guidelines
The impacts of threatening processes, such as invasive species, will be managed to maintain or restore habitat conditions and increase resilience to climate change.	Ag60. Conduct climate change awareness campaigns and workshops in Park fringe communities and beyond. Ag61. Set up monitoring plots in and around the Park to find out if there are alien or invasive species and to monitor their population with time.
Potential refugia at the Park will be identified and protected from impacts of climate change and other threats.	Ag62. Identify and provide additional protection for climate refuges in the Park, where possible.
Determined efforts will be made towards building the knowledge base about the potential impacts of climate change on the Park's biological resources.	Ag63. Encourage research projects in the Park to improve knowledge of plant and animal ecology in relation to climate change and monitor species and populations as indicators of change to habitat condition and natural integrity due to climate change.

3.9. Fire Management

No fire outbreak has been recorded at the Park. Forests with dense or closed canopy vegetation are known to be good at suppressing fire by virtue of their relatively cooler temperature in relation to more exposed surroundings. However, as communities and farming activities get closer to Park boundaries, it is expected that the risk of accidental or deliberate fire will become important. This plan recommends a fire management plan for any of such eventualities. Areas of potential fire hazard are the external boundaries and along seasonally dry creeks.

Management Issue No.9: Fire and Park Protection	
Policies	Actions and guidelines
A green fire belt of 100m or less, planted to carefully selected species of plants, will be established and maintained on the immediate outer side of the Park. The belt will be populated mostly by a mix of species of grasses and various fire-resistant tree species that are to be identified through research.	<p>Ag64. Carry out a series of consultative meetings with Park fringe communities to elicit their support of the plan to create a boundary of a green fire belt of 100m or less.</p> <p>Ag65. Identify, select, propagate and plant a species or a number of species of suitable grasses in the green fire belt and train individuals on the proper maintenance of the belt.</p> <p>Ag66. Prepare the fire management plan, incorporating the ideas of Park fringe communities and other stakeholder groups.</p> <p>Ag67. Reach consensus with Park fringe communities about the area to be set aside for purposes of the green fire belt as this, in effect, is another extension of the Park that is likely to trigger conflict.</p> <p>Ag68. Establish the 100m or less buff strip on the agreed area.</p>
Encroachment on Park boundaries must be reduced and, eventually, interdicted.	<p>Ag69. The green fire belt must be patrolled as frequently as possible by a team of park rangers and community representatives</p> <p>Ag70. Conduct annual training for Park rangers and community members on bushfire prevention and control, including farmers in close proximity to Park buffer zones.</p> <p>Ag71. Construct 10m fire belts around Beat Camps and Zone Camps.</p>
No Farming practices of any kind will be permitted in the green fire belt.	Ag72. Enforce a strict fire management regime at all camps, especially on patrols.

3.10. Water Management

There is a network of creeks and rivers that originate from, support, or flow through the Park. The level of water contained in these water bodies during and after dry and wet seasons will be monitored. Flash floods and repeated cycles of extremely dry and wet seasons and their impacts are symptomatic of a degraded watershed; the Park is actually a watershed and monitoring the cycles of dry and wet seasons will give management a sense of its integrity.

Management Issue No.10:Waterbodies and Floods	
Policies	Actions and guidelines
Restoration efforts for Park and surrounding forest ecosystems will be meticulously and carefully pursued by this Plan.	Ag73. Identify and map out all deforested areas in and surrounding ecosystems of the Park as a result of logging, mining, farming (that clears forest and burns the wood, etc.) and human settlements.
The drainage system of the Park should remain in its natural state. No artificial water system will be constructed in the Park as it has its own network of natural streams of fresh and clear water bodies.	Ag74. Ensure that infrastructure development and other Park management activities, with the least disruption to the natural water flow and drainage, are undertaken.
Fishing, involving all the methods commonly employed in rural communities and elsewhere (e.g. Using nets, hooks, blocking of water in creeks/streams, poisoning, etc.),will not be allowed in Park waters.	Ag75. Prepare a guidebook for visitors and ensure that guidelines on fishing methods that are not tolerated in the Park's water bodies are detailed. Ag76. Patrols in the Park must ensure that water bailing, poison and nets are not used as fishing methods in any water body of the Park many of whose sources are outside the Park's boundaries
Motorized canoes or boats will never be used on any portion of the Mano River or any sizeable water body that flows in and through the Park.	Ag77. Park management must ascertain that only manually paddled canoes and boats are used on any of the water bodies in the Park ,and these are to serve the interest of ecotourism and scientific research and surveys on fishes and other aquatic lives in rivers and streams in the Park.

3.11. The Management of Wild Animals

3.11.1. Human and wild-animal conflict (HWC) inside the Park

There are no reports on HWC inside the Park. However, management experience in Sapo National Park suggests that the most likely species of ‘conflict animals’ are elephants, chimpanzees, sooty mangabeys, Mona, spot-nosed monkeys, and red river hogs.

Management Issue No. 11: Conflict Between Humans and Wild Animals in the Park	
Policies	Actions and guidelines
The risk of injury or death caused by a wild animal will be taken seriously for both humans and animals, although so far there are no reports of any wild animal(s) attacking or harming humans at the GFNP.	<p>Ag78. Educate local people (e.g. hunters, herbalists) to be able to identify and report on potential conflict animals (those that are likely to be in conflict with humans visiting the Park).</p> <p>Ag79. Dispose of leaf litter and rubbish (banana peels, etc.) so as not to attract animals when in the Park, and people should not feed wild animals.</p>
The Chief Park Warden will direct the action to be taken in cases of risk of injury resulting from a human and wild-animal contact.	<p>Ag80. Instruct the Park Visitor Reception Desk to warn all tourists and other visitors when they arrive about the possibility of dangerous wild animals and how to behave in the Park.</p> <p>Ag81. Supply the Reception Desk with a book in which tourists and other visitors can record any dangerous animals they must have noticed while in the Park.</p> <p>Ag82. Investigate and record all incidences of wild animal attacks on humans and monitor the situation.</p> <p>Ag83. Employ experienced former hunters on the Park staff or a nearby Army detachment with a heavy caliber game control rifle 0.375 magnum (or larger), to serve as guides for events involving wild animals that become dangerous to Park visitors(but these hunters should not be trigger happy).</p>

3.11.2. Human and wild-animal conflict (HWC) outside the Park

Many farmers in Park fringe communities, particularly in Gbarpolu, have repeatedly complained that wild animals such as Chimpanzees and other primates have raided their crops. They point to the existence of the Park as the only reason for this problem. Another type of HWC is caused by some people who keep Chimpanzees and some species of monkeys in their homes as pets. Such pets have repeatedly demonstrated the propensity to harm people, especially children.

Management Issue No.12: Conflict Outside the Park Between Humans and Wild Animals	
Policies	Actions and guidelines
All must be done to avoid creating conflicts with animals and keeping wild animals at home as pets is outlawed. Domestic pets such as cats and dogs will not be allowed to enter the Park.	Ag84. Develop and introduce a set of measures that communities must take to avoid having any conflict with animals.

<p>Attempts will be made to rehabilitate animals involved in any conflictual situation be it about crop raiding or direct attacks on humans.</p>	<p>Ag85. Park management and park communities should jointly define the rules about when an animal is actually a threat to human lives and has done any damage to crops, as these incidences must be evidence-based.</p> <p>Ag86. Park rangers should investigate and keep records of “conflict” animals either by their attacks on humans or damage done to crops in Park fringe communities.</p>
<p>All wild animals that are treated as pets at homes will be confiscated or disposed of in anyway deemed necessary by the Chief Park Warden, including putting them in a sanctuary.</p> <p>At all times, efforts will be made towards minimizing and or avoiding human-animal conflict and no animal should just be shot without any evidence that everything was done to avoid this outcome.</p>	<p>Ag87. Deliver confiscated animals or their carcasses to the Chief Park Warden who is authorized to decide how to dispose of them.</p> <p>Ag88. Collect the following information for evaluating the impact of animals on crops:</p> <ul style="list-style-type: none"> •Type of crops affected/not affected. •Geographical distribution of damage in relation to species distribution. •Seasonal pattern of crop raiding. •Proportion of farms affected and the overall economic impact, and the percentage of damaged crops in affected farms and a list of mitigation measures.
<p>If all failed and an animal is killed, the carcass must be handed over to the Chief Park Warden for disposal.</p>	<p>Ag89. Carry out case studies on local practices of control or how to minimize or avoid human-animal conflict.</p> <p>Ag90. Undertake detailed literature review to document experiences, in Liberia and other countries, with experience in identifying and avoiding/reducing/interdicting threats of animals that damage crops and threaten human lives.</p>

3.11.3. Domestic animals within the Park

Currently there are no reports about the entry of domestic animals into the Park, but there is a possibility for this to happen in the future. It is therefore important to note that three potential types of domestic animal issues are fairly common and are highly likely in the GFNP. They are (FFI 2011): (i) Domestic livestock may sometimes stray into the park or may be herded in purposely (as with free-ranging animals); (ii) Some rangers may like to keep domestic animals in or near their homes; and (iii) Some tourists could visit the Park with their pets.

Management Issue No.13: Domestic Animals in the Park	
Policies	Actions and guidelines
Domestic animals will not be allowed in the Park. Park staff will not be permitted to keep any livestock in their camps or residences.	Ag91. Monitor and prevent visitors from carrying pets into the Park Ag92. Park rangers and other staff will take responsibility for keeping livestock out of their camps and homes. Ag93. Kill any domestic animals that have been deliberately herded in the Park and this after a given number of warnings against this action.
Tourists will not be permitted to take dogs or other pets into the Park. “Free ranging” (taking domestic animals, like cattle, to forage in the Park and its buffer zone) is prohibited.	Ag94. Drive stray domestic animals out of the Park and return them to their owners if possible, with warning. If such animals go astray after repeated warnings, they will be shot, and the meat left for wild predators and vultures, etc. Ag95. Monitor camps to ensure that regulations about stray animals are strictly followed. Ag96. Deny entry into the Park to visitors with dogs and other pets, as well as “free ranging” animals. Ag97. Educate the general public that dogs and other pets are not permitted in the Park.

3.12. Safety Precautions While in the Park

Public education, outreach and awareness-raising documents will be prepared about the likelihood of danger in the Park from wild animals, including snakes, and how visitors should respond to these potential dangers. The brochures for awareness would also introduce the structures available in the Park to accommodate visitors, including tents, and buildings and the facilities each of these have. The issue of health considerations while visiting the Park will also be a focus in this document. Any other aspects of safety for visitors (tourists, researchers, etc.) while visiting the Park will be considered.

Management Issue No.14:Safety Precautions While in the Park	
Policies	Actions and guidelines
Park administration will design and distribute a public education, outreach and awareness document on the potential danger visitors may encounter while in the Park and how to respond to these eventualities.	Ag98. Prepare and distribute to visitors copies of the brochure on the likelihood of dangers from wild animals, including snakes, and how visitors may respond. Other safety issues such as health and the type of water to drink while in the Park will be considered in the brochure.
<p>Farming in the Park is illegal and shall never be permitted under any circumstances.</p> <p>Park management will not compensate anyone for any loss or damage by wild animals in farms established in the Park.</p>	<p>Ag99. Compile and distribute to Park communities the regulations against farming, including the possibility for backyard gardening and why farming in the Park is not allowed.</p> <p>Ag100. Monitor gardens to ensure that the regulations are understood and followed and prepare and circulate information on the types of crops which should not be planted in gardens.</p> <p>Ag101. Destroy any farm(s) found outside the Development Zones of the Park and prosecute those who own such farms.</p>
<p>Park staff may grow vegetables or other non-invasive plants within 20 meters of their backyards as backyard gardens.</p> <p>If areas larger than those available to Park staff for backyard gardens are desired, the staff should negotiate with local landowners outside Park boundary for additional land.</p>	Ag102. Where an agreement is reached between Park staff and local landowners for gardening purposes, documented evidence must be presented to the parties involved and the Park Warden.

3.13. Farming and gardening in the Park

There are farms of food and tree crops in the Park and the final decision about these farms will be made by members of the co-management committee. Farming in the Park is outlawed by this Plan. When staff residences are constructed (in the Development Zones), some rangers may want to grow some vegetables in backyards, but there will be some rules against certain types of crops. Park management will identify the forbidden crops within the first few years of implementation of the Plan.

3.14. Utilization of products inside the Park

3.14.1. Staff use of products inside the Park

There is currently no utilization of resources in the Park by rangers. However, when ranger camps are established, there may be the need for at least gathering of firewood by their families for cooking.

3.14.2. Community use of resources inside the Park

Currently, there are extensive pockets of forest outside the Park that could provide almost all the forest resources communities need. These include roofing thatch, poles for construction, Rattan, wild fruits, timber, firewood and medicine. Park management, through co-management agreements, will support credible governance and sustainable natural resources management in the forested landscapes around the Park to stem the tide of unsustainable resource management practices.

Management Issue No.15: Community and Park Staff Use of Park Resources	
Policies	Actions and guidelines
Utilization of the Park's resources for commercial purposes is a taboo, including firewood.	Ag103. Set the levels, define the methods and specify the areas for firewood collection for home consumption in written instructions.
Staff may gather dead wood that had fallen in designated areas within the Development Zones, away from visitor use areas. Felling any tree (living, dead) and charcoal production in the Park are strictly forbidden.	Ag104. Monitor the collection of firewood to ensure that regulations are respected and adhered to. Ag105. Conduct case studies in communities to identify trees whose wood has the highest calorific value for firewood (ask blacksmiths, women, etc.) and so can burn longer, among other excellent qualities for burning.
Collection of firewood (dead wood) and possibly other products (Mushrooms, nuts, etc.) inside the Park and in about 3 km radius outside the Park will be allowed under strict monitoring and sanctions regime. Gathering of firewood or other forest products is at the personal risk of the collector in case of any accident or untoward event during the collection.	Ag106. Prepare and disseminate product collection plans and schedules for all collectors to avoid needless competition and conflict among collectors. Ag107. Educate collectors (individuals, families) about the risks associated with the collection of firewood and other products in the Park.

3.15. Domestic Litter and Waste Disposal Outside the Park

Rangers and other Park staff who live in their own homes in communities outside the Park will organize litter and waste disposal practices, such as the establishment of communal dump sites.

3.15.1. Waste disposal inside the Park and outside the core Zone of the Park

During the implementation of this Plan, it is highly likely that the number of visitors to the Park will increase and this will be the case with Park staff. The quantity of wastes that will be generated by the increased number of visitors and staff must be carefully disposed of in an environmentally acceptable manner.

Management Issue No. 16: Waste Disposal Inside the Park HQ and Zonal Settlements	
Policies	Actions and guidelines
Rangers and visitors will always be reminded not to litter the Park or their homes; all non-biodegradable waste should be buried in pits off camping sites and trails. Human waste must also be buried in temporary pit latrines away from camps.	Ag108. Define what constitutes litter and wastes for the general public and prepare detailed rules about how litter and wastes are to be properly managed or disposed of.
Litter and waste must be properly managed when in the Park and at all camps outside the Park.	Ag109. Organize a Sanitation Committee (SC) to control the toilet cleaner, agree upon a system of spot fines and authorize the SC to take responsibility for waste management, with the supervision of the CPW, in or outside the Park.
The Chief Park Warden (CPW) must enforce the best waste management practices.	Ag110. Set up a litter management system at Park HQ to demonstrate best waste management practices.
Free ranging in the Park and its immediate buffer zone(s) is prohibited.	Ag111. Organize and undertake effective monitoring regimes to prevent/avoid 'free ranging' in and around the Park.

3.16. Mineral Prospecting and Mining in the Park

Mining in Protected Areas is forbidden by Law (the National Forest Reform Law-NFRL 2006). There are reports that individuals and groups are currently engaged in mining in the Park.

Management Issue No.17:Mineral Prospecting and Mining in the Park	
Policies	Actions and guidelines
Prospecting for minerals or mining in the Park, as is true for all parks in the country, is prohibited.	Ag112. Identify and document individuals and groups who are licensed to mine in the two counties, Gbarpolu and Grand Cape Mount, portions of whose landscapes the Park covers.
The Ministry of Energy, Lands and Mines will always keep the CPW informed about those individuals and groups licensed to mine in Park fringe and adjacent communities.	Ag113. Determine the effectivity dates of all mining permits issued by government to miners in Park fringe and adjacent communities.
	Ag114. Reject requests by anyone or a group to carry out mineral prospecting surveys, much less mine in the Park.

	Ag115. Arrest and prosecute anyone/group caught trying to mine or prospect for minerals and confiscate and submit the mining equipment and materials to government officials.
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3.17. Environmental Impact Assessment

As per the Environmental Protection Management Law (EPML) of Liberia, Environmental Impact Assessment (EIA) is a must for all proposed developments that may likely have negative impacts on Protected Areas (EPML 2002). So far, no EIA has been conducted for any development in the Park. An EIA is needed and will be conducted, but with the anticipated construction in the Development Zone of the Park, it is expected that this will be needed within the first few months of implementation of this Plan.

Management Issue No.18: Environmental Impact Assessment	
Policies	Actions and guidelines
Environmental Impact Assessments (EIAs) are a must for all proposed developments within protected areas, including the Park, to ensure that all necessary environmental safeguards are adhered to.	Ag116. Ensure that EIAs are carried out for all developments in the designated zones of the Park.
Post EIAs will be commissioned and meticulously monitored.	Ag117. Specify measures that must be taken if the EIA is satisfactory but is subject to mitigation of some sort. Ag118. Monitor the conduct of the EIAs to ensure compliance.

3.18. Analysis of Threats to the Park

Threats are defined as human-induced and dynamic influences that cause some degree of deterioration or destruction of biodiversity in a given site(Margoluis & Salafsky 2001)and are synonymous with “barriers”, “drivers”, “impacts” or “pressures”(Salafsky et al 2008, Salafsky et al 2003).Losses of animal and plant species or habitats due to natural processes, such as fires from lightning and hurricanes, are not considered threats to biodiversity. Human-caused increases in the magnitude or frequency of natural catastrophic events, however, are considered as threats(Margoluis & Salafsky 2001). Threats are classified as direct and indirect. Direct threats are further categorized as external and internal(Margoluis & Salafsky 2001).

External direct threats are factors or conditions that have direct impact on biodiversity in a given area and are caused by outsiders, such as logging and agro-industrial crop plantations by multinational companies in a community. Internal direct threats are factors that directly impact biodiversity and are caused by the stakeholders living at the site of conservation interest (Salafsky et al 2008 Margoluis & Salafsky 2001), such as uncontrolled hunting of large mammals, farming and mining by locals in and around the Park. Under certain circumstances, some threats could be both external and internal at the same time. This standard classification is primarily intended to help conservation practitioners identify threats correctly, outline responsibilities, take appropriate actions to efficiently and effectively set priorities, allocate resources, and facilitate cross-project learning and the systematized development of conservation science .

The Plan adapts Participatory Threat Analysis (PTA) as an approach to assessing and avoiding/reducing/interdicting threats.

Management Issue No. 19: Threats (Direct, Indirect) to the Park	
Policies	Actions and guidelines
A participatory identification and assessment of threats will be an essential and routine effort to effectively avoid/mitigate/interdict both direct and indirect threats to the Park.	<p>Ag119. Design and undertake participatory identification, assessment and avoidance/reduction/interdiction (PTA) of threats to the Park by taking the following steps:</p> <ul style="list-style-type: none"> • Prepare a user-friendly training module on participatory identification and assessment of threats to the Park (biodiversity). • Train selected representatives of Park communities and Park management (in separate but parallel training arrangements) on PTA. • Using the team of trained individuals, undertake a participatory assessment of threats to the Park to collect benchmark data on the types, extent and impact of existing threats upon which the degree of success can later be determined in threat identification, assessment and avoidance/mitigation / interdiction.
Areas with clear evidence of threats to the Park will be captured on maps and photographs by Park management in a given time interval, using GIS-derived techniques and participatory mapping.	<p>Ag120. Train a team of Park rangers and community members in GIS techniques to enable their interactive participation in the preparation of accurate and updated maps that blend the outputs of GIS and participatory mapping.</p> <p>Ag121. With rangers and individuals from Park communities as participants, conduct a series of trainings in participatory mapping exercises in the various management zones of the Park.</p> <p>Ag122. Develop a database on incidents (controversial and otherwise), events (historical dates and local celebrations of cultural and related events, etc.), and attitudes of people in the communities towards the GFNPMP and its administration.</p>

3.19. Park Map Appraisal

Map appraisal information will be collected from ground coverage operations in and around the Park. Such information normally gives a picture of the habits and movements of certain people in the community and should help to develop indicators to detect poaching. Given its location along the porous borders of Liberia and Sierra Leone, map appraisal is critical to timely detection and tracking of paths poachers from both sides of the border use to access the Park.

Management Issue No. 20: Appraisal and Direct Indicators to Detect Poaching	
Policies	Actions and guidelines
Park management will operate with up-to-date maps to be generated by GIS techniques and participatory mapping.	Ag123. Train a selected team of Park rangers and community representatives in the preparation and interpretation of topographical maps, using both GIS techniques and participatory mapping.
The blending of GIS techniques and participatory mapping will constitute the major approach to generating updated maps.	<p>Ag124. Train and build capacity in the selected Team on how to use (read, interpret) the “Blended Product” of GIS and Participatory Mapping.</p> <p>Ag125. Using the “Blended Product”, work with selected Team to generate updated maps.</p> <p>Ag126. Map and photograph locations of known poachers’ homes and prominent members of the community and provide such information to rangers and auxiliaries.</p> <p>Ag127. Record incidences</p>

3.20. Transboundary Cooperation

A Transboundary Committee will be organized to take full responsibility for crafting Transboundary operational plans and making sure such plans are executed. Steps to achieve such cooperation started in 2011 when Liberia and Sierra Leone signed a Memorandum of Understanding (MoU) to collaborate on activities such as law enforcement, free cross-border movement of staff assigned to the National Parks, joint research and monitoring, community engagement and marketing. Following from the MoU, a Transboundary Action Plan detailing concrete activity to be undertaken by each party has been prepared by the FDA in Liberia and FD in Sierra Leone, two countries whose forested and related landscapes are being replaced by large-scale oil palm plantations, mining and logging initiatives in the West Africa region. Implementation of the Action Plan should be integrated into the delivery on the goals and objectives of the Management Plan.

4. RESEARCH AND MONITORING

Much ground has so far been covered in the Greater Gola Landscape on biological surveys, inventories and continuous mapping. Results of this excellent body of work, pursued by a team of competent researchers, have provided baseline information and data that lend more credence to the creation of the Gola Forest as a national Park. Both local and international researchers have participated in these efforts and it is highly recommended that such collaboration be nurtured and sustained for future endeavors.

4.1. Biological Research

Biological surveys, monitoring and continuous mapping, as carried out in the GGL, are essential and will continue to contribute to narrowing the knowledge gaps about the various species of animals, plants and other organisms, and their relative abundance so that conservation and other research efforts are properly designed and executed on an informed basis. In addition to biological surveys and related research attempts, the Plan proposes (i) A systematic analysis of threats to biodiversity, (ii) Baseline surveys and inventories on a broad range of animals and plants, and the natural habitats specific to them, (iii) The environmental and health dimensions of mining, (iv) Monitoring the potential or actual impact of climate change (focusing on forest ecosystems), and (v) Conduct of case studies on animal and plant ecology in relation to climate change.

4.2. Social Research

Park management needs and must know the likely impact of the Park on people's lives through the conduct of socio-economic assessments. Socio-economic assessments will help Park management determine the broad range of effects and impacts which may arise from changes in policy or practice in the context of the Park and its management. These effects and impacts can be divided into the 3 categories of economic (changes in well-being, regardless of whether the changes are reflected in monetary flows), social (changes in community cohesion, vitality, confidence and demographic makeup) and environmental (changes in environmental quality) (IACSA 1998).

The Park has been a landscape of disputes and conflicts, and this situation is not surprising for protected areas around the world. Social research will help management to manage or resolve disputes and conflicts (see Bogale et al 2006, De Jong et al 2006), and understand the significance of intrinsic and extrinsic motivations in behavior change (Badola 1998, Rigby et al 1992).

It is reasonable to say at this point that from the biological, ecological, social, economic and other perspectives, management is not simply going to be a straightforward process. Thus, management decisions may have to be made without adequate information. The term “**Adaptive Management**” accepts that as circumstances and more knowledge is gained from research, and with feedback, it may be necessary to adapt the management plan. Under an Adaptive Management system, the purpose of monitoring is to check that management actions and guidelines are having the intended effect, so that remedial actions can be taken if necessary (FFI 2011). In other words, regular monitoring and data collection will feed into adaptive management and decision-making to inform all relevant management decisions (MET 2013).

Management Issue No.21: Research and Monitoring	
Policies	Actions and guidelines
Biological surveys, inventories and continuous monitoring for baseline information are at the core of present research efforts.	Ag128. Plan and implement biological surveys, inventories and monitoring of the Park animal and plant species, document their unique natural habitats, develop a data base of these species and monitor the population of selective species .

	<p>Ag129.Conduct a systematic analysis of threats (direct, indirect) to biodiversity, employing Participatory Threat Analysis (PTA).</p> <p>Ag130.Determine and examine the environmental and health (animal, plant, human) impacts of mining.</p> <p>Ag131.Monitor the potential or actual impact(s) of climate change on any selected number and types of the manifestations/constituents of biodiversity.</p> <p>Ag132.Undertake research on animal and plant Ecology in relation to climate change.</p>
Socio-economic research is as highly valued as that of the biological realm, and both will be pursued accordingly.	<p>Ag133.Plan and conduct case studies on the human and wild-animal conflict (HWC) and the gender dimension of conservation.</p> <p>Ag134.Probe into the significance of intrinsic and extrinsic motivations in positive behavior change, social capital and its influence on collective action, local knowledge systems on resource conservation and protection, and alternative methods to conflict resolution and management.</p> <p>Ag135.Document and assess local livelihood strategies and identify existing structures of resource governance and management in Park fringe and adjacent communities.</p>
Co-management/collaborative management of natural resources is new in Liberia and as such will be given keen attention in view of its relevance to credible and successful protected area management. The six key steps constituting the research agenda of co-management are the focus of the Plan.	<p>Ag136.Define the socio-ecological system with focus on functions, not on structures.</p> <p>Ag137.Discuss and map the essential management tasks and problems to be solved.</p> <p>Ag138.Clearly define the roles and responsibilities of participants (co-management partners) in the problem-solving process(es).</p> <p>Ag139.Analyze linkages in the co-management arrangement (as a system) across levels of organization and geographic space.</p> <p>Ag140.Evaluate and respond positively to training and capacity-building needs for enhancing the biological and social research skills and capabilities of people and institutions at various levels.</p>

	Ag141. Prescribe ways to improve decision making and problem solving across the levels of organization and geographic space.
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4.3. Future Research Agenda and Independent Research

The Plan has quite a broad research agenda that spans biological and social thematic areas. Past, and to some extent, continuing research efforts largely in landscapes surrounding the Park have given researchers a sense of what is currently known about the biological resources of the Park and its socio-economic impacts. It is fairly reasonable to suggest that biomonitoring, surveys and inventories of plants and animals will continue beyond the lifespan of the Plan; detailed socio-economic analysis is expected to begin in this period. More research interests for the future will be further determined on the basis of what can possibly be achieved in the current research agenda and the lessons learned as a result. Research will be pursued by a team of suitably qualified individuals or by individuals with contracts as consultants. Besides consultants, universities may wish to conduct research in the Park. Interested parties should apply in writing to FDA's Central Office.

5. LAW ENFORCEMENT

Currently hunting, farming and the most dangerous internal direct threat to the Park, mining, are not being effectively controlled. Artisanal miners, farmers and poachers are decimating the Park with impunity. Their presence in the Park is clearly an existential threat. All efforts must be brought to bear on mitigating or interdicting mining of any kind in the Park .

5.1. Law Enforcement Operations of the Park

Law enforcement and anti-poaching in Liberia and along the Liberia-Sierra Leone border are the vital pivots of success that can turn around the current situation of threats. If pursued by trained and dedicated staff, they can help to ensure the integrity of the Park, allow degraded resources to recover to their natural state, and enable other management activities to be pursued in safety and security.

Management Issue No.22: Law Enforcement Operations of the Park	
Policies	Actions and guidelines
As the years go by the number of animals and other natural resources of the Park are expected to decrease, as the number of direct resource-dependent individuals in Park fringe communities increases.	<p>Ag142. Reduce the illegal hunting of wild animals and harvesting of other resources in the Park through awareness and education.</p> <p>Ag143. Educate hunters on the laws on Wild Animals and arrest and convict poachers who have broken the Wild Animal Laws of the country.</p> <p>Ag144. Establish an intelligent gathering network to counteract illegal activities in the Park.</p>
Illegal trading in wild animals outside the Park must be effectively monitored and eventually interdicted.	<p>Ag145. Monitor law enforcement measures to improve effectiveness.</p> <p>Ag146. Establish a database to record/monitor illegal activities in and around the Park.</p>
Highly motivated and effective ranger force will be maintained.	<p>Ag147. Ensure that all law enforcement staff are trained and well equipped.</p> <p>Ag148. Ascertain that all staff are aware of their roles in the event of poaching incidences.</p> <p>Ag149. Prepare Zone Wardens to actively and efficiently supervise and monitor law enforcement and ground coverage activities.</p>
Park law enforcement staff will build and nurture rewarding relationships with other law enforcement agencies such as the National Police Force, on both the Liberia and Sierra Leone sides of the border.	Ag150. Liaise with and assist the Judiciary (i.e. County Attorney and Magistrate) and other partners and stakeholders (District Superintendents, Commissioners and Chiefs) in all Park-related law enforcement efforts in both Liberia and Sierra Leone, in the spirit of the Transboundary pact.

Local communities and the general public will learn more about the importance of animals in conservation and understand the laws governing the management of wild animals.	Ag151. Develop and maintain good relationships with local communities, understand the value(s) they attach to wild animals, and create public awareness of the importance of wild animals in forest regeneration and other key roles.
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5.2. The Zone System of Park Administration

The Park will adapt the Zone System of Administration (ZSA). As experience in Sapo National Park has so far taught top management, two major challenges appeared to be associated with implementation of the ZSA. First, it is often confused with resource-based zoning. For this type of zoning, the key requirement is to sub-divide the Park into areas for management land uses that include strict protection, research, ecotourism, high conservation value, roads, trails, restoration, resource access(if permitted) and intensity of use. Administration zones are, in Sapo National Park, currently bounded by trails linking villages and camps for patrols, among others, and natural features such as creeks, rivers and streams and is recommended for the GFNP.

Finally, the second, and other challenges may be revealed later, is that ZSA makes it a must for Park staff to live in the communities (in some cases with locals), which is not effective for their duties, especially for law enforcement operations, research, monitoring and related activities, and ecotourism. As an integral part of this and other management plans that have yet to be fully implemented, more time is needed to have the ZSA field tested. This, in practice, means Park management and administration will be “learning by doing “and not simply changing from one system to another.

5.2.1. The Park Anti-poaching Strategy

The “8 Step Anti-Poaching Model” was developed in the 1990s to improve the effectiveness of Park Security Operations. This Plan recommends the adoption of the model to improve operational effectiveness. It will form the basis of all planning and implementation of security operations in the Park. Figure 3 illustrates the 8 key strategic steps of the Anti-poaching Model.

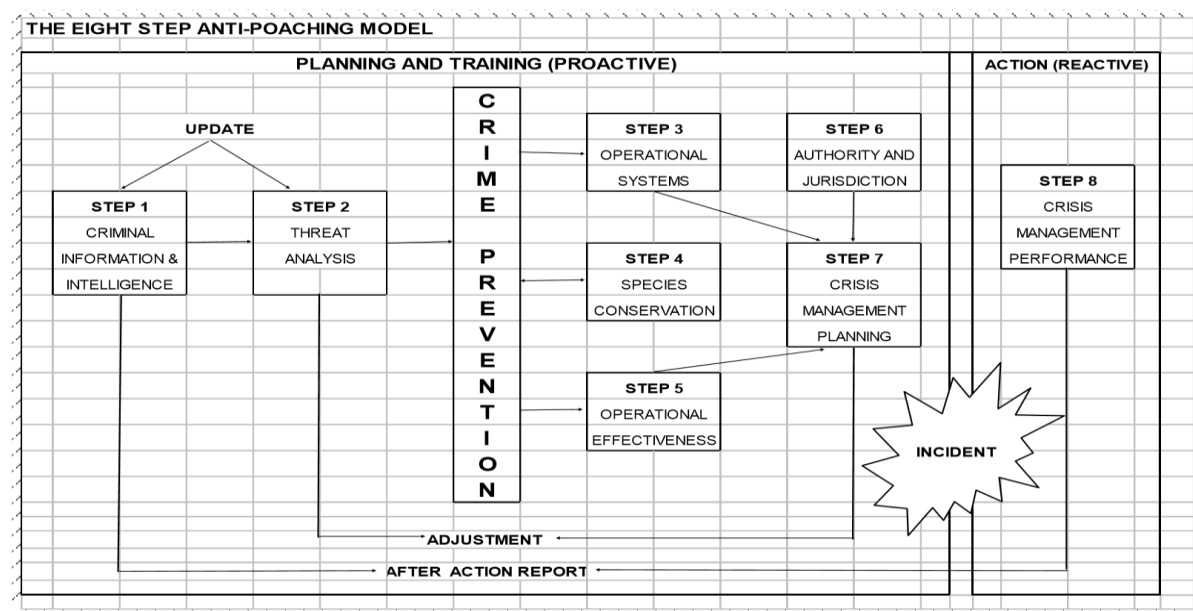


Figure 3 The 8-step Anti-poaching model

To support the Anti-poaching model, the Plan proposes that Sniffing Dogs be employed in the fight against poachers. These are detection and tracking dogs. Most of the poaching activities in our national parks and nature reserves consist of fishing, illegal logging and hunting with local hunting dogs, snares and spotlight using light caliber firearms. Sniffing Dogs have since helped law enforcement confiscate parts or products of wild animals, and muzzle loaders, AK-47s, snares, ammunitions and gun powder in Zambia (Arevalo 2018) and other African countries. They can be imported from Australia, Germany and other western countries and this will entail some cost.

Management Issue No. 23: The Anti-Poaching Model and Sniffing Dogs.	
Policies	Actions and guidelines
Park management will adapt (not adopt) the Anti-poaching Model (the Model).	Ag152. Provide a detailed description of each step of the Model and the various systems and procedures involved in a training module.
The systems and procedures indicated in the Model will be in place timely enough to guarantee effective and efficient law enforcement in the Park. A selected group of community representatives will serve as observers in the application of the Anti-poaching Model in a given community.	Ag153. Identify, select and build the capacity of all rangers and auxiliaries in the theory and practice of the Model and develop and employ a process to appraise their comprehension and performance each year.
Park management and administration will support the use of Sniffing Dogs to improve law enforcement and anti-poaching strategies.	Ag154. Search for and contact institutions abroad that train and provide Sniffing Dogs for law enforcement and anti-poaching purposes.
Funds will be made available to import any number of Sniffing Dogs and to prepare Rangers to manage and handle them, if Park management and administration are convinced that such dogs can add value to law enforcement and anti-poaching efforts.	Ag155. Import the Sniffing Dogs and undertake the training and capacity building of staff who will be charged with managing and handling the dogs.

5.2.2. Area coverage and ground control

The operational area of the Park is divided in two parts: (i) Inside the boundary (or “Area of Influence”) and (ii) The areas around the park (or “Area of Interest”). Local communities around the Park are very important for effective law enforcement and are within the “Area of Interest”.

5.2.3. Patrol teams

To curb and eventually stop poaching, Patrol Teams will conduct all patrols and other activities in Zones within and outside Park boundaries. Six-member Teams will be posted to Base Camps, but a functional team should have the strength of 4 to allow for leave time or days off. Four is the absolute minimum for effective and safe patrol. Each Team will be headed by at least 2 rangers and assisted by at least 4 community volunteers (Auxiliaries). The senior ranger is the Team Leader and is assisted by the next most senior ranger. Currently, there are 24 trained rangers, 2 Park officials (CPW, Deputy CPW) and 9 cadets (Auxiliaries).

Management Issue No.24: Patrol Teams, Managers, Tasks and Code of Conduct

Policies	Actions and guidelines
Patrol teams of Park rangers will work under minimal supervision in difficult conditions but must ensure strong team collaboration and maintain the minimum number for a team at all times.	<p>Ag156. Train and build the capacity of patrol teams of Park rangers to serve as Rapid Response Units (RRUs) and ensure the minimum number for a team is always kept intact.</p> <p>Ag157. Convert the Park headquarters (HQ) teams into RRUs and staff them with the best rangers, without reducing the effectiveness of the teams.</p>
<p>A Rapid Resource Units (RRUs) of Park rangers will be established at Park HQ and would be employed to minimize poaching as effectively as possible.</p> <p>Rangers will use all their professional experience and training to outsmart and arrest poachers to minimize poaching.</p>	<p>Ag156. The teams are to be deployed to:</p> <ul style="list-style-type: none"> • Provide anti-poaching support to outposts. • Monitor ranger movements and activities (internal watchdog). • Assist investigators of crimes against wild animals. • Gather intelligence on poaching and other crimes. • Conduct extended secret operations in and around the Park.
The Park Manager will take several actions in fulfillment of his/her duties and responsibilities	<p>Ag158. The Park Manager ensures that :</p> <ul style="list-style-type: none"> • Ground coverage systems are implemented. • Monitoring and evaluation of the system takes place.
A Strike Force (SF) will serve as an elite group of law enforcement and will operate in and around the Park.	<p>Ag159. Organize an SF and train its membership, including a Patrol Leader and three Guards of wild animals.</p> <p>Ag160. The SF should ascertain that the “4D’s” of patrolling are understood and applied for all patrols; and they are :</p> <ul style="list-style-type: none"> • Detect: Use “intelligence” to detect what the poachers are doing. Use all skills in the bush to detect or find the poachers. • Detain: Track the poachers down and detain or arrest them. • Deflect: The presence of patrols in the Park will help deflect the poachers from hunting in that area. • Deter: If everyone sees application of the law in an effective, professional manner, they will think that the risk of being caught is so high that they will stop poaching. They will be deterred from poaching.
The Park Operations Warden (POW) will perform a number of tasks as deliverables.	<p>Ag161. The POW:</p> <ul style="list-style-type: none"> • Ensures that infrastructure and equipment are well maintained. • Ensures staff receives quality training in Patrol Operations.

	<ul style="list-style-type: none"> • Ensures the RRU follows the strategy. • Ensures the SF receives specialized training. • Ensures that patrol equipment is correctly maintained. • Monitors and evaluates ranger and auxiliary performance and skills. • Monitors and evaluates the effectiveness of the SF. • Records, processes and forwards all intelligence. • Conducts Map Appraisal work around the Park (minimum 1 day/month). <p>Ag162. Patrol teams must be prepared and ready to lead by example, cover all ground, observe carefully, should not be predictable, think ahead, patrol at night, maintain secrecy and always be professional.</p>
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5.2.4. Patrol routes

Patrol routes are a network of well-marked trails with appropriate signage that link all camps and sites within the Park. The Park has long been inhabited by animals and by humans. As a result of the movement of animals and humans within and across the Park's varied terrain, numerous trails have been created that may offer possibilities for movement of rangers and other authorized persons, and for illegal persons (e.g. poachers/miners) as well. Patrol routes are to be established and marked in the Park and its buffer zones. Rangers should use the major trails connecting mining camps and minor trails interconnecting them for their patrols.

Management Issue No.25: Patrol Routes	
Policies	Actions and guidelines
<p>Specifications of patrol trails are that they must be:</p> <ul style="list-style-type: none"> •As straight as possible to minimize distance. •Have an average width of 1m. •Clear of trunks, branches or roots to facilitate both movement of rangers and sighting wild animals and human presence. 	<p>Ag163. Construct patrol trails using standards established for the Park and with respect to the specifications on trails.</p> <p>Ag164. Other Wardens must interact with the Park Operations Warden to convey waypoints to the zone and to patrols.</p> <p>Ag165. Patrols should follow paths used by poachers where possible, but also need to go off of regular trails to increase the opportunities to apprehend poachers and miners and to know all parts of the Park.</p>
<p>During implementation of the Plan, necessary operational changes will be made to improve system efficiency.</p>	<p>Ag166. Places where access is difficult, and which are used by poachers must also be covered by patrols.</p> <p>Ag167. Rangers should assist each other in co-operative patrols and counter-check patrols to strengthen their enforcement duties.</p> <p>Ag168. Zone Wardens and Operations Wardens must regularly check patrol reports and the effectiveness of ground coverage.</p>

5.2.5. High profile (visible) policing

High Profile Policing is law enforcement that takes place in full view of the public. It is intended to convey to the public a sense of: (i) Professionalism, (ii) Strength (number of staff), (iii) Seriousness of purpose, and (iv) Knowledge of the law. It is a deterrent, as poachers usually choose soft targets. Examples of Highly Visible Policing in the Park would be attending local markets in uniform, checking on natural resource trade, or having a presence at police checkpoints around the districts.

Management Issue No.26: High Profile Policing	
Policies	Actions and guidelines
Regular but unpredictable high-profile policing assignments in communities around the Park will be carried out.	<p>Ag169. Design an unpredictable, high-profile policing patrol strategy for the Park and incorporate it into local patrol schedule periods.</p> <p>Ag170. Prepare local patrol schedule periods for the policing patrol strategy.</p> <p>Ag171. Ensure that all rangers comport themselves in a highly professional manner as ambassadors of the Park and of the law at all time, whether in the public eye or not.</p>

5.2.6. Intelligence gathering and management

Currently, there is no system of intelligence gathering in the Park. Law Enforcement and Ground Coverage, in them, are insufficient; they must be linked with “Intelligence” if they are to be effective. Therefore, an informant network is urgently needed to complement standard operations. Knowledge of poacher and poaching profiles is now nil or poor. Among other things, information is urgently needed on such aspects as poacher age, origin, tribe, occupations, activity budget, funding sources, hunting inputs, hunting grounds, hunting style, decision making processes, and game meat disposal.

Management Issue No.27: Intelligence Gathering	
Policies	Actions and guidelines
Establishment of an Informer Strategy System is mandated.	<p>Ag172. Identify and recruit suitably qualified informers and put them under the control of a handler.</p> <p>Ag173. Strictly keep the identity of information sources and informers confidential and protected at all times.</p>
Crime data collection will be undertaken, including Patrol Reports and information from the accused.	<p>Ag174. Keep a register of all informants in a secure place (preferably a safe), always validate information received, and reward informants.</p> <p>Ag175. Verify all information collected, interpret it and pass it on to relevant staff for action.</p>

Operation of poacher and poaching profile system to guide planning and execution of the law will always be performed.	<p>Ag176. Always remember to take pictures of arrested poachers and asked them some structured questions as illustrated in the “Poachers Capture form”.</p> <p>Ag177. If formal interview is not possible, ask key probing questions following a logical sequence of questioning.</p> <p>Ag178. Compile a database of poachers and poaching profiles.</p>
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5.2.7. Crime data collection and management

A database of information about criminal activities and poaching at the Park is needed to enable law enforcement to analyze and systematically assess trends and patterns of criminal activities.

Management Issue No.28: Crime Data Collection and Management	
Policies	Actions and guidelines
Patrol results will be prepared, thoroughly analyzed, corrected and securely stored.	<p>Ag179. Collect reports regularly and have them submitted to the POW(Park Operations Warden) for processing and filing. All rangers must be copied.</p> <p>Ag180. Question all poachers as a Standard Operating Procedure, because they hold valuable information.</p> <p>Ag181. For any law offence: Establish How? What? When? Where? Who? And Why?</p>
The law allows only questioning (NOT interrogating of suspects). Rangers will be trained to know and put in practice the difference between questioning and interrogating in law enforcement .	Ag182. Train rangers on the procedure of questioning suspects and the difference between questioning and interrogating. Many promising good cases have been lost in court for alleged interrogation where only questioning should have been done).

5.2.8. Patrol schedule and organization

Patrol schedule and organization include monthly patrol schedules, patrol routines, compilation of daily efforts and work output and patrol incentives. Park administration and management need and should have patrol schedule and organization.

Management Issue No.29: Patrol Schedule and Organization	
Policies	Actions and guidelines
The term “patrol” is used in this Plan to cover all the duties of a field staff, and the auxiliaries that assist them, including law enforcement, infrastructure construction and maintenance, research, guide duties and community engagement.	<p>Ag183. Create and strengthen the implementation and supervision of the patrol routines at the Park.</p> <p>Ag184. Remind Park rangers as frequently as possible of their major duties and related activities as a strengthening mechanism.</p>
<p>A regular patrolling routine will be established in each zone and it will operate with 18 persons in 3 Teams of 6 (2 LE(Law Enforcement) Rangers, and 4 Auxiliaries) for field patrol operations.</p> <p>Park HQ will have two teams and there will be no time when patrol strength will be less than 4.</p>	<p>Ag185. Ensure that patrols are conducted by Teams under secrecy and according to monthly activity plans synchronized all over the Park for effective ground coverage.</p> <p>Ag186. Ascertain that patrol strength is not less than 4 at any time.</p>
<p>The Park HQ team is a special team that will be used for general duties at the HQ, such as ground maintenance, visitor escort, research assistance, and rapid response duties (patrols or arrest of people engaged in illegal activities, or to assist other Teams in routine and emergency situations).</p> <p>The HQ team can also have scheduled patrol duty, just like any other team, but in a situation like this, it will be replaced at the HQ by a Zone team that is on Local Patrol.</p>	<p>Ag187. All rangers should meet the requirement for basic hours and distances covered per month.</p> <p>Ag188. Monitor team performance in each of the situations involving their general duties so as to capture weaknesses and strengths and improve efficiency on the job.</p>
Field staff is required to spend at least 12 days per month on extended patrols in the field.	Ag189. Exercise care so that each group will not go over 12 days per month of local patrols from the Camp.
Most patrol time will be used to make and record careful observations of the terrain. In particular, patrols should make extensive notes and geo-reference evidence of any animal or human presence and activity.	<p>Ag190. Ensure teams have their stipulated Rest Time. All must be done not to overburden patrol teams.</p> <p>Ag191. Compensate individuals or teams that do extra time (fully recorded and verified) with equal time off at the next possible opportunity.</p>

<p>A monthly Duty Roster will always be displayed to indicate when a ranger or an auxiliary will be on duty in a given month, so that they can be adequately prepared (mentally, logistically) for any assignment and to also plan for their personal affairs.</p>	<p>Ag192. Individuals should each cover at least 300kms on extended patrols per month.</p> <p>Ag193. Records of work outputs should be an important part of annual staff performance appraisal and should feed into the Park's management effectiveness assessment.</p> <p>Ag194. Where an illegal activity is observed, patrols should arrest the person(s) involved in the activity, escort him/her to the nearest park office, and then process the person according to legal protocol for handing over to the police for prosecution.</p>
<p>Non-monetary incentive packages should be explored to motivate Park rangers to strive for more achievement beyond the standard requirement. Similar schemes beyond the stipend payment should also apply to auxiliaries.</p>	<p>Ag195. The Chief Park Warden and Park Operations Warden must check on the Zone Warden once a month for debriefing and to verify that personnel and resources are being used and maintained in accordance with policy.</p>

5.2.9. Patrol secrecy and field rations

Patrols routes, timing and activities at the Park are normally directed by the Zone Warden, on the basis of quarterly and monthly Action Plans. Emergency situations requiring rapid response (such as interception of escaping poachers) take priority over all Directed Patrols, unless circumstances dictate otherwise. A problem arises when the patrol members circulate in villages and towns to buy supplies or meet with friends for discussions. This leads to sharing of Park and patrol information that should not be known to non-patrol persons. It is then obvious to local people when and where the rangers are going on patrol. This is particularly the case with Long patrols.

Management Issue No.30: Patrol Secrecy and Field Rations.	
Policies	Actions and guidelines
<p>Routes, destinations and plans for patrols must be kept secret from local people.</p>	<p>Ag196. Assign supplies at least 12 hours before departure from the base camp to ensure that the rangers are always ready for patrols and are on time, and that local people are not alerted by a group of rangers preparing for a patrol.</p> <p>Ag197. Keep confidential the details of assignments to rangers until the team has departed for the base camp and brief the patrol team as soon as it crosses the Park boundary.</p>
<p>Officers will exercise extra-ordinary care in making sure that only the Zone Warden knows where Directed Patrols are expected to take place.</p>	<p>Ag198. Emphasize to the patrol team at all meetings, briefings and debriefings the importance of secrecy in the planning and conduct of all patrol operations.</p>
<p>Patrol members must receive all field rations so that they do not have to buy some items in communities, an activity that usually leads patrol persons to share, probably inadvertently, Park and patrol information that should have been kept secret from locals.</p>	<p>Ag199. Organize purchases, storage and distribution of food and field supplies, and fix the rate and procedures for the ration allowance.</p> <p>Ag200. Ensure or account for and return to storage any left-over rations after each patrol.</p> <p>Ag201. Ascertain that, except for emergency situations, all scheduled patrols are to depart their home base in darkness (dawn or dusk).</p>

5.2.10. GPS patrol monitoring, data analysis and reporting

A simple Management Information System based on the Global Positioning System (GPS) and Microsoft Excel has been developed since 2006. Though not perfected by all field rangers, it has been adequately used in navigation, resource marking and data collection for the Park's Database. It should be available for this Plan and be regularly reviewed to assess effectiveness (staff compliance and incorporation to operational planning). Report formats should be prepared and used to some extent, but it must be kept in mind that their usefulness requires regular reviews.

Management Issue No. 31: GPS Patrol Monitoring, Data Analysis and Reporting.	
Policies	Actions and guidelines
GPS and Microsoft Excel will be the key elements for the Park's Management Information System (MIS), until any other more useful tool is available for purposes of patrol effectiveness.	<p>Ag202. Train rangers and auxiliaries in the use and handling of the GPS and Microsoft Excel system, and issue each patrol team a GPS unit and spare batteries.</p> <p>Ag203. Record GPS positions every 30 minutes during patrols or map out movement routes. The Wardens should use these points to determine coverage for monthly reports and to help assess staff performance.</p> <p>Ag204. Make changes to patrol operations if necessary.</p>
The Park's MIS will always be employed to monitor patrolling effort and effectiveness, and the distribution and trends of wild animals.	<p>Ag205. Use the GPS to record positions of interesting biological sightings, poaching and waypoints such as satellite camps and footpaths.</p> <p>Ag206. Use the reporting forms for all patrols.</p> <p>Ag207. The Zone Wardens should visit each team to download the waypoints and have them forwarded to Park HQ for input into the MIS Computer each month.</p> <p>Ag208. The analysis of patrol results must be returned to the Patrol Leader to encourage feedback and adaptive management.</p> <p>Ag209. Do not store too many waypoints in the GPS unit as they will freeze up and not show any more coordinates at start-up. Zone Wardens should regularly download and clean all GPS units during their visit to the Park HQ.</p> <p>Ag210. The Park Management Team (The Wardens and Administration Officer) must plot the coordinates and analyze reports to show:</p> <ul style="list-style-type: none"> • Patrol paths and areas to determine ground coverage. • Illegal activities. • Observations of wild animals. • Staff activity schedule and performance.

5.2.11. Adaptive law enforcement operations

It has been observed that poachers change and adapt to law enforcement pressure. This is particularly so when operational secrecy is poor, and guards either deliberately or mistakenly reveal anti-poaching strategies to poachers. By keeping records and evaluating security effectiveness over time, it is possible to identify operational weaknesses.

Management Issue No.32: Adaptive Law Enforcement Operations.	
Policies	Actions and guidelines
Law enforcement procedures will be frequently examined to anticipate and respond to threats by poachers.	Ag211. Provide a continual learning process in law enforcement procedures for law enforcement staff of the Park. Ag212. Ensure the interactive participation of law enforcers in law enforcement procedures. Ag213. Keep records and evaluates security effectiveness over time as an approach to identifying operational weaknesses.
High quality operational secrecy will be maintained at all times.	Ag214. Develop and effect a code of conduct for law enforcement agents on the revelation of planned anti-poaching activities to locals.
Law enforcement operations will be reviewed and changed when necessary.	Ag215. Change law enforcement procedures to anticipate and respond to threats by poachers.

5.2.12. Park operations effectiveness

The effectiveness of Park operations must be progressively assessed on a more-or-less systematic basis under the various Park support projects such as the GolaMA.

Management Issue No.33: Park Operations Effectiveness.	
Policies	Actions and guidelines
Park operations will be assessed and evaluated as often as possible to guide planning and implementation efforts.	Ag216. Conduct a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis on law enforcement effectiveness as frequently as may be deemed necessary. Ag217. Develop and implement an agenda that nurtures and promotes the identified Opportunities and Strengths as a result of SWOT analysis.
Guards of wild animals will fully accept and apply the principles of self-evaluation to avoid mistrust by colleagues and top park administrators and managers, which could be very de-motivating if not handled timely and correctly.	Ag218. Upgrade the knowledge base and skills of Guards on the principles of evaluation through on-the-job training. Ag219. Correct the identified weaknesses in enforcement effectiveness such as revealing patrol information to the general public, noise on patrol and sleeping in villages while on patrols.
Keen attention will always be paid towards improving patrolling and accuracy of record keeping.	Ag220. Monitor and ascertain the accuracy of data on: <ul style="list-style-type: none"> • Estimating numbers. • Using the correct datasheet codes. • Recording all animals on their list. Ag221. Define and deliver on the various ways to measure effectiveness of Park operations besides SWOT and other analyses; examples include: <ul style="list-style-type: none"> • “Catch per unit effort” (e.g. Patrol man-days compared with poachers arrested). • Number of illegal snares or traps detected per km of patrolled trail.

	<ul style="list-style-type: none"> • Dead animal detection rate and the time since death (finding carcasses soon after death shows that the ground coverage is effective). • Observable items placed on boundary lines and satellite camps by the supervisor (are an indicator that the boundary or satellite camp has been visited).
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5.2.13. Firearms control

Because of the need to bear firearms for self-protection against wild animals and poachers, staff of protected areas like the Park automatically has paramilitary status. But unlike their counterparts in other African countries, such as Cote d'Ivoire and Guinea, who apply a distinctly military style to law enforcement, Liberia's is more of a policing activity. With this status comes higher requirement for discipline and order. It is important to bear in mind that the possibility is great that a good number of shotguns are in and around the Park, in the possession of persons with considerable skills in their use (e.g. combatants or long-term hunters), which makes it highly likely for Park rangers to encounter armed poachers at any moment of their operations, including during tour guide duties.

Management Issue No.34: Firearms Control.	
Policies	Actions and guidelines
All the staff of the Conservation Department of the FDA, from recruitment to retirement, must undergo training in basic weapons handling and maintenance, and should acquire skills in how to handle armed encounters.	<p>Ag222. Develop and implement a training module or recruit an expert or team of experts to undertake this task with staff of the FDA's Conservation Department.</p> <p>Ag223. In a brochure, list and describe the "suitable firearms" that are to be used as deterrent.</p>
FDA Protected Area anti-poaching staff must carry suitable firearms as a deterrent and for adequate defense.	<p>Ag224. Train and build capacity of the concerned Park staff in the proper handling of weapons encounter situations, both within and outside the Park.</p> <p>Ag225. Identify and monitor poacher arm supply sources and monitor trends in poacher arm use and sources of strength and resistance to arrest, as among the early warning signs for escalation of deadly encounters.</p> <p>Ag226. Report all incidents of armed attacks on rangers immediately to the Park Manager and the Central HQ in Monrovia through the CPW.</p>
The Park will NOT recruit any group(s), government or otherwise, to perform law enforcement and related functions at the Park, that has no training or knowledge about Protected Areas systems and their management challenges (such as the Emergency Response Unit (ERU) of the Police.	Ag227. Train, enable, and equip the Emergency Response Unit of the Park to use largely peaceful (e.g. Social ostracism such as social public rebuke, different degrees of social isolation, as among the powerful tools community leadership uses to enforce compliance with rules) and seldomly forceful means to serve law enforcement objectives. Use of arms will occur according to the dictates of the situation.
Shotguns may be used as a stand-off point, to match the guns generally used by poachers. Upgrades may become necessary if poachers' resort to more sophisticated arms.	Ag228. Define and describe in detail the types of shotguns to be used as a stand-off point and what constitute "upgrades".
Credibly measured defense tools must always be used for Park law enforcement, so that the Park will not be unnecessarily and needlessly militarized to a zone of unending armed conflict in the country.	Ag229. It must be kept in mind that turning the Park into a war zone will not serve conservation ends in any way. It could only serve to destroy the Park. With this fact in mind, "measured defense tools" must be defined.

5.2.14. Promotion of laws on wild animals to Park staff

The backbone of all Park activities is the enforcement of relevant laws and regulations. Staff should know and understand all the pertinent forestry sector laws of the country. There is a high demand for copies of the laws by courts, Justice Ministry agencies, traditional authorities and district/county officials. While some needs are met, most copies are kept at homes for personal use and are not available to the public. This attitude leads to repeated requests for more copies of these laws and regulations that impose a needless cost on Park administration. A means to change this type of behavior must be found.

Management Issue No.35: Promotion of Laws on Wild Animals to Park Staff.	
Policies	Actions and guidelines
All Park staff will be issued a copy of forestry sector laws and regulations at recruitment.	Ag230. Prepare (print and bind) and distribute copies of relevant forestry sector laws and regulations to Park staff at recruitment.
Each of the administrative zones of the Park will be issued copies of all pertinent forestry sector laws and regulations.	Ag231. Deliver a bound copy of all forestry sector laws and regulations to each team, each zone office and Unit Desk.
All Park staff should be able to understand, interpret and apply the laws and regulations that are related to their various functions at the Park.	Ag232. Review relevant sections of the forestry laws and regulations at quarterly meetings and always seek assistance from reputable legal sources for training and advice. Ag233. Routinely evaluate staff on topics relevant to their duties and responsibilities at performance evaluation time.
Copies of the appropriate forest sector laws and regulations will be distributed to courts, Justice Ministry agencies, traditional authorities, district/county officials and border security services.	Ag234. All recipients of copies of forest sector laws and regulations in Park fringe and adjacent communities must sign a statement acknowledging that such documents are only for official use.

5.2.15. Promotion of laws on wild animals to Park communities

For successful convictions of poachers, the poacher should be aware that he/she has broken the law. If not, the court will often be lenient on the grounds that there was no intent to commit a crime. It is therefore important to do all that is required to inform the fringe communities about the Wildlife Laws and Regulations, and other pertinent legal instruments.

Management Issue No.36: Promotion of Laws on Wild Animals to Park Communities.	
Policies	Actions and guidelines
Park communities will acquire in-depth knowledge in forestry laws and regulations, especially on those relating to the Park, to enable individuals in these communities to understand and interpret such laws and regulations.	Ag235. Train a selected number of suitably qualified individuals in Park fringe and adjacent communities to serve as trainers who will train others to understand and interpret forestry laws and regulations relating to the Park, and why people must protect the animals and plants the Park contains.
Various means would be sought and found to broaden and deepen the knowledge base of Park communities about the Park, and the various laws and regulations that detail the protection of the Park, its resources, and the ecosystem services it provides.	<p>Ag236. Provide communities with adequate understanding of forestry laws and regulations relating to the Park in particular, through the following:</p> <ul style="list-style-type: none"> • Meetings and workshops to promote laws about wild animals. • Prepare and display posters and other such materials as an educational tool. • Distribute leaflets on the laws and regulations. <p>Ag237. Organize a Community Engagement Unit (CEU) to help educate the communities.</p> <p>Ag238. Train all staff, especially members of the CEU, to answer questions about forestry and Park laws.</p> <p>Ag239. Support the CEU in any way possible, to help promote conservation laws, ethics and regulations during the course of their work in communities and local schools.</p> <p>Ag240. Ensure that interpretative material is displayed or available throughout the Park area.</p>

5.2.16. Police and judicial forums

A regular forum are needed between the national police and judiciary on one hand and the law enforcement team and Park managers on the other, to discuss criminal activities (not just wildlife crimes) related to the Park and its surroundings. In addition, most magistrates are unaware of the impacts of poaching, and the challenges of Park law enforcement operations. It is important that officers (especially the Park Manager) provide the Public Prosecutor with Evidence on Aggravation to ensure that poachers are correctly punished.

Management Issue No.37: Police and Judicial Forums.	
Policies	Actions and guidelines
Police and judicial exchanges of ideas with Park Management are necessary and will be encouraged.	<p>Ag241. Establish a formal forum for the Park Management Staff (CPW, Unit Heads and Zone Wardens) and the judiciary, at least every 3 months, to discuss criminal activities around the Park (not just crimes against wild animals in the Park). Such meetings are to :</p> <ul style="list-style-type: none"> • Build good relations between FDA and the Judiciary. • Establish formal communication mechanism between the law enforcement agencies in the Park fringe districts and counties. • Build authentic and professional relationships between stakeholders. • Provide feedback on threats or issues about wild animals in the Park. • Provide mutual assistance and support and promote the importance of laws on wild animals. • Create an understanding of the issues and the impact of poaching – give feedback and share intelligence on criminal activities and follow up on outstanding cases.
Park Operations Warden and Zone Wardens will always be reminded of the need to follow up cases through the police and judicial systems so as to ensure that such cases are finalized.	<p>Ag242. Structure and coordinate Police and Judicial Forum meetings and ensure participation of the Park Management Staff.</p> <p>Ag243. Follow up all cases to ensure that they are completed and ascertain if there is evidence the crime was committed intentionally or not for all cases on wild animals.</p>

6. CONSERVATION AND ENVIRONMENTAL EDUCATION AND AWARENESS

Park management will create and support a Park Conservation Education and Promotion (PCAP) program. The primary objective of the program is to build and maintain meaningful and beneficial relationships with a wide range of stakeholders of the Park, Park fringe communities in particular, in a way as beneficial as possible to core Park values and aims. For the first 5 years, this Plan will provide guidance for the Park to build further co-operative institutional capacity with stakeholders in the communities, and to ensure establishment of viable fora for awareness creation and education, and regular positive interactions.

6.1. Park promotion and conservation awareness

The objectives of this component of the PCAP are to ensure that all Park stakeholders, from the local to international level, are aware of and understand: (i) The Park's biological, ecological, and socio-economic values; (ii) The objectives and activities of the Park, the constraints and opportunities, as well as other relevant conservation & natural resources governance and management issues; and (iii) The necessity to protect and promote the Park by continuing these activities even after 5 years of the Management Plan implementation.

6.2. Community and Stakeholder Outreach Program

A Community Engagement & Tourism Unit (CETU) will be established to drive the Park's community outreach functions. A CETU will be established in each of the administrative zones of the Park. Youth and women groups, miners and hunters will be organized and trained to lead the various community outreach activities. The issue of High Conservation Value (HCV) areas in the Park and their importance in biodiversity conservation will be highlighted through the convening of International Environmental Day each year targeting policy makers and the general public.

6.3. Gender and Biodiversity Conservation

Gender refers to the different social roles that women and men play, and the power relations between them in these respects. Gender relations influence how communities, households and institutions are organized, how decisions are made and how natural resources are governed and managed (Valenius 2007, Agrawal et al. 2006). There is an urgent need to integrate gender equality in the implementation of the Management Plan. By gender equality is meant that both women and men must be consulted, and their ideas must be respected and integrated into the planning and implementation of the various activities the Plan proposes.

Understanding women's and men's roles and relationships to natural resources plays a central role in developing practical solutions for more sustainable management and use of natural resources (PRB 2002). Ignoring gender distorts the understanding of human impacts on the environment (Campese 2011, Agrawal et al. 2006, PRB 2002). Bridging the existing gender inequalities in Liberia's male-dominated society must also be demonstrated in all community and stakeholder outreach programs of the Park. Liberia ranked 145th of 152 countries on the Gender Inequality Index (World Bank 2016).

6.4. Climate Change and the National REDD+ Strategy

Climate change, arguably, is one of the existential threats to humankind and natural ecosystems. In Liberia the impact of climate change is manifested in increased temperatures, rising sea levels and changes in rainfall patterns and intensity (Koffa 2008, USAID 2011). There is a growing body of documented experiences in Liberia and around the world in support of the thesis that where and when forest cover increases, the quantity of carbon dioxide emitted in the atmosphere reduces, as forests capture and store carbon, one of the world's most notorious greenhouse gases. In fact, forest loss accounts for 20-25% of carbon emissions (Gurney 2007, Taylor 2007).

In recognition of the relationship between forests and carbon emissions, the international community proposes and funds a policy instrument known as REDD+ (Reducing Emissions from Deforestation and Forest Degradation, and fostering conservation, sustainable management of forests, and enhancement of forest carbon stocks) to incentivize developing countries to keep their forests standing as a measure of adapting to and mitigating the cataclysmic effects and impacts of climate change (Visseren-Hamakers et al. 2012) in Liberia. Community and stakeholder outreach programs for purposes of this Plan must pay keen attention to climate change issues and Liberia's REDD+ Strategy that attempts to find a solution to climate change impacts.

6.5. Public Relations Coverage

Public relations activities in the recent past will be continued for this Plan. These include press releases on various developments at the Park, hosting key visits by dignitaries from the country's capital and abroad to the Park, and organizing and hosting a media visit to Liberia by professional journalists and photographers from international news agencies such as the BBC and the Voice of America. Social media platforms (Youtube,etc.) and dedicated websites will be employed to help contribute to public relations coverage of the Park.

6.5.1. Information and educational materials

Information and educational materials on the Park will be provided to visitors such as researchers, tourists, visiting dignitaries, and journalists. These will include brochures, leaflets, pamphlets, T-shirts, car window stickers, baseball caps, roadside billboards and A2 posters.

6.5.2. Rural theater campaigns, radio and press coverage

Local cultural troupes will be organized in strategically located communities for an awareness program that will consist of the 2 sub-components of : (i) Branding and logos, to produce a suite of materials with common design constructs and other images; and (ii) Information flow and activity coordination, to bring together Park administration, the FDA and local and international NGOs so as to integrate their efforts in and around the Park to prevent needless competition and duplications. Park management could add other components as may be deemed appropriate within the planning horizon and beyond.

6.5.3. Conservation awareness and education in schools

The Park will provide a host of different educational and awareness-building opportunities in environmental and resource use issues. A conservation education program for schools will focus particularly on school children and youth groups, and on teachers and curricular linkages in the Park fringe communities, with potential for expansion to capitals of the two counties sharing the Park. Most of these conservation awareness and education activities will be undertaken in collaboration with NGOs and other civil society groups that are already engaged in such activities across the country and elsewhere.

Management Issue No. 38: Conservation Awareness Creation and Education in Schools.	
Policies	Actions and guidelines
Rangers will be provided with adequate information on public awareness of the Park, wildlife conservation issues and environmental education in general.	Ag244. Review past and current conservation awareness projects of the Park and document the lessons learned. Ag245. Ensure that stakeholders gain enhanced awareness of problems, resources and opportunities, and provide relevant interpretation, sensitization, and education for local inhabitants and visitors to the Park.
There will be an active support for the design and implementation of communications interventions which seek to bring about positive behavior change in stakeholder groups implicated, complicit or otherwise, in illegal activities inside the Park.	Ag246. Develop and implement public conservation awareness program and provide awareness and communication messages to all relevant stakeholders and the general public.
Efforts to communicate and enforce the laws regarding human activities inside and outside the Park, including those pertaining to Community Forests, will be fully supported.	Ag247. Carry out assessments of the awareness and understanding of issues before and after educational and awareness programs and activities. Ag248. Prepare a new or upgrade the Park Awareness Outreach Manual to include a Community Conservation Training Manual to develop a brief presentation on the Park, conservation and its importance, the wildlife of the Greater Gola Landscape, cultural and local knowledge systems, awareness and education on HCVs, etc., for school children and adults.
An outreach program for Park fringe and adjacent communities and schools will be developed and fully supported, through initiatives such as eco-schools, bush camps, and guided tours for community members (including students).	Ag249. Develop and implement a school outreach program that would provide awareness and support conservation of the Park, including environmental education camps in the designated zones of the Park. Ag250. Implement a conservation/anti-poaching religious campaign to work with churches and mosques to spread conservation messages.
Strong community relations will be built and strengthened through open, transparent public participation towards enhancing local constituencies' understanding and awareness of biodiversity conservation and environmental issues..	Ag251. Employ the services of the cultural troupes to develop a play based on conservation messages that are culturally inviting and captivating.
The effectiveness of educational and awareness interventions as a basis for management will be monitored.	Ag252. Seek funding support from possible partners for the awareness program.

6.5.4. The Gola Forest National Park Conservation Education Centre

A Conservation Education Center for the Park will be constructed at Park headquarters, or in any suitably qualified Park fringe community, to serve as a research and training facility for forestry professionals, lecturers and students from colleges and universities in Liberia, and for scientists and researchers from around the world, who express interest in conservation science and related fields. The Center will be equipped with facilities and its manager recruited and appointed.

Management Issue No.39: The Gola Forest National Park Conservation Education Center (GFNPCEC/CEC)	
Policies	Actions and guidelines
A Conservation Education Center of the Park will be constructed hopefully during the first 5- year period of the Plan.	<p>Ag253. Select a site to build the Center based on previously agreed criteria.</p> <p>Ag254. Seek and obtain adequate funding for the construction and furnishing of the CEC.</p> <p>Ag255. Search for and recruit a competent and reputable construction company, through bidding, to construct the Center.</p>
The Center will be equipped with appropriate and adequate facilities, and its manager will be recruited and appointed.	Ag256. Construct the CEC, and recruit and appoint its manager.

7. ADMINISTRATIVE MANAGEMENT OF THE PARK

The FDA is the sole government agency responsible for managing the country's forests and forest resources. The Authority will propose the number of employees for the Park or provide the current list of Park staff. Figure 4 presents an organogram of Park organizational structure, including the Co-Management Advisory Body, which the Plan must adapt since co-management is the overall management approach.

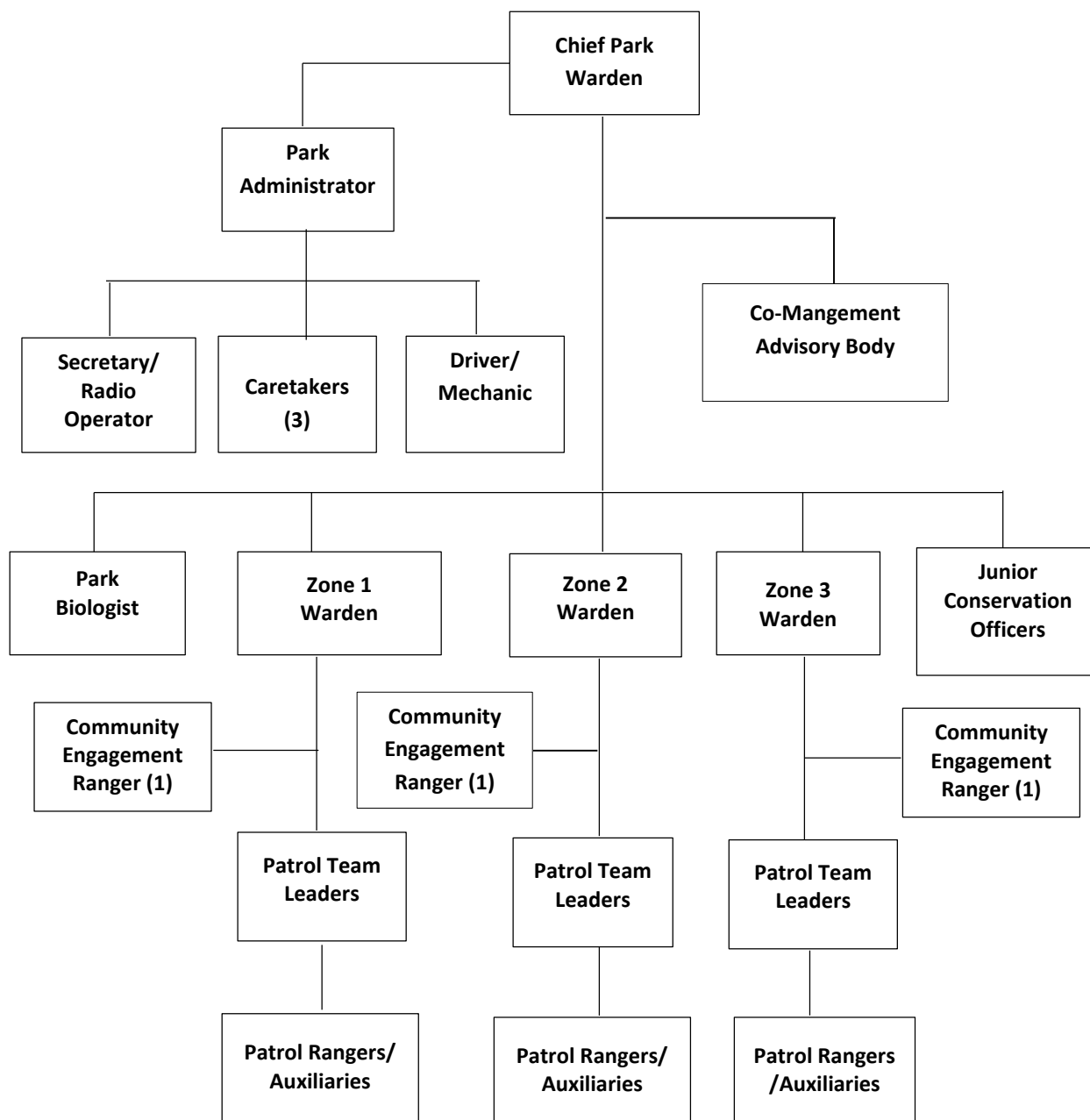


Figure 4: Park Organizational Structure

The numbers in some of the sections of the organogram for a given position are illustrative of how many individuals may be needed for that particular title, such as Chief Park Warden (1). Working in tandem with the Authority, Park management will decide the number of staff required per a particular position.

7.1. Staff Recruitment, Career Progression and Retirement

Recruiting competent and dedicated staff is of great importance in PA management. Care will be exercised so that staff are not recruited who do not want to be where they are, who lack the physical fitness required, or lack the potential for skills development.

Management Issue No.40: Staff Recruitment, Career Progression & Retirement.	
Policies	Actions and guidelines
A “staff-recruitment-to retirement” system that provides for effective performance, career progression and social security in the Park management setting will be instituted.	Ag257. Design and implement a staff recruitment-to-retirement system for the Park. Ag258. Strictly apply the staff recruitment criteria in employing new staff with respect to age, physical fitness, and gender. Ag259. Develop and strictly enforce a code of conduct for the recruitment of new staff and for retiring older staff.
At all times, Park management will ensure that the correct procedures for selecting new staff will be applied and all efforts will be brought to bear on making and keeping the process transparent.	Ag260. Avoid making exceptions that will set precedents for future situations. Such actions demoralize applicants who are not selected, and also create disrespect for the selection process and for the favored but not qualified applicants.

7.2. Staff Terms of Reference and Standard Operational Procedures

Currently, the various categories of staff employed full-time in the management of protected areas are: (i) Professional Officers generally ranked as Wardens, with University educational background; (ii) Technical Officers, with high school or post-high school certificate and diploma qualifications, and these are lumped into the Ranger ranking; and (iii) Supporting staff and artisans (e.g. drivers, mechanics, and secretaries). From this structure, it is obvious that there is no technical officer category to carry out a more practical field supervisory role. In addition are Auxiliaries, volunteers from surrounding communities who are retained temporarily as casual labor assistants to the ranger. These are not considered Park personnel per se, because they are not under the responsibility of the government. Their services are, however, vital to the operations of Parks. This state of affairs of auxiliaries, if it still exists, requires urgent attention; they must receive fair and just compensation that matches the services they provide. A strategy to enable volunteers to become staff is highly recommended.

7.2.1. Administrative management prescriptions

Management prescriptions are primarily meant to ensure that routine operations of the Park are clearly identified, defined, and are consistent with the management Plan, and that responsibilities for such duties are assigned to specific personnel.

Management Issue No.41: Administrative Management Prescriptions.	
Policies	Actions and guidelines
All staff of the Park will be formally employed, with appropriate Conditions of Service and Terms of Reference to encourage high staff retention.	Ag261. Design and implement training and capacity building modules for all staff, in addition to local and international courses, conferences and workshops, and include local auxiliaries in these trainings.
New staff should undergo an induction period for as many weeks as necessary and an in-service training course at the Park.	Ag262. Conduct an in-service training course for all newly recruited staff at the Park.
Additional training will be made available for staff with requisite qualifications to further develop skills through local and international courses, conferences and workshops.	Ag263. Make determined and sustained efforts to ensure that each staff fully understands her/his role and how it relates to other ranks and the overall Park management goal and objectives. Ag264. New staff should undergo a certain period of induction and an in-service training course at the Park. Ag265. Review the staff ToR annually and make recommendations to the Central Office of the FDA for incorporation.
Better and improved working conditions and compensation packages for local auxiliaries will be defined and delivered to ensure continuation of the invaluable services they render to the Park.	Ag266. Assess each person's ToR annually and have it corrected or updated where necessary. Ag267. Provide clear ToRs for local auxiliaries working with the FDA staff to ensure they fully understand that it does not constitute an offer of employment. Ag268. Make all attempts to have the services of auxiliaries rewarded, under any list of qualifications and requirements while volunteering, and develop and implement a strategy for volunteers to become Staff.

7.2.2. Staff ranking

Some park management staff and officials lament the absence of insignia of rank among the staff and the fact that the generic name for all PA in the field in Liberia is “ranger”. To the general public, this obscures distinction of staff responsibilities which in turn affects command structure and discipline. This Plan recommends that a ranking structure for the Park personnel, be considered by the FDA Forest Conservation Department.

7.2.3. Staff supervision and coordination

Operating in terrain that is often rugged and remote, and against deadly poachers, it is normal for most Protected Areas officers to think that they have to be very tough with their staff to get them to perform well. Since almost all management efforts are based on compliance with legislation and procedures, the tendency is for superior officers to be very assertive towards subordinates; and for rangers to be very assertive (bordering on domineering) to local communities in general, and poachers in particular. On the other hand, subordinate staff and poachers/community members are expected to react submissively to superiors and rangers, respectively. To a large extent, this has been the case with the management of some parks and nature reserves in the country and may be true for this Park. However, experience all over the world has shown that successful PA management, especially field operations, depends on good staff management. For this to happen, the key policy areas identified for participatory development are to be put in practice.

Management Issue No.42: Staff Supervision.	
Policies	Actions and guidelines
A ranking and insignia system that promotes staff discipline and responsible performance will be instituted.	Ag269. Institute an appropriate ranking and insignia system.
Systems and procedures will be put in place to guarantee effective and efficient management of the Park.	Ag270. Conduct regular staff performance appraisal to reward deserving staff and motivate under-performers.
A more effective approach to staff management to ensure better performance in individual units will be adopted, and it will utilize the elements of participatory development as identified in a study carried out at the FDA for that purpose.	Ag271. Institute a staff supervision system and implement the policy areas that lead to participatory development which include: <ul style="list-style-type: none">• Code of Conduct.• Standard Operating Procedures (SOPs) for field operations.• Community engagement.• Use of FDA and partners’ assets and biomonitoring.

7.2.4. Personnel management style

As a tradition, the FDA has operated under a centralized management orientation for decades. Efforts are being made to adopt a progressively decentralized management regime. The **Human Resources style** of management has been widely adopted throughout the world and is not merely treating staff well but utilizing them well. Protected Areas managers who apply this style of management believe that staff: (i) Find their work enjoyable if they pursue meaningful objectives; (ii) Are willing to show what they can do, (iii) Will take their work seriously when given meaningful responsibilities, and (iv) Are more intelligent than their work requires of them.

Management Issue No.43: Personnel Management Style.	
Policies	Actions and guidelines
<p>The management of the Park will adopt the Human Resources Style of management that :</p> <ul style="list-style-type: none"> • Promotes good communication (sharing of information) with staff at all levels. • Ensures that staff is well equipped and well trained. • Ensures that welfare issues are handled appropriately. 	<p>Ag272. Provide all staff with copies of their Terms of Reference and ensure that they understand the objectives of their operations.</p> <p>Ag273. Assess each person's ToR annually and make corrections where necessary.</p>
<p>Emphasis will shift from <i>ad hoc decision-making</i> orientation to adaptive management in the revision of Park operations and coordination.</p>	<p>Ag274. Include field staff (rangers/guards) in decision-making and give them the responsibility to make decisions on plans and problems.</p> <p>Ag275. Provide staff with details on what management plans consist of (always be transparent about these plans).</p>
<p>Existing standards for Park operations will emphasize knowledge-based adaptive management to address weak accountability, and a supervision process will be implemented.</p>	<p>Ag276. Promptly address staff welfare issues as they identify such issues.</p>
<p>Sustained efforts will be made for staff to understand what their various responsibilities are so that they can work more effectively.</p>	<p>Ag277. Involve staff in a meaningful way ('<i>tell</i> them and they will hear, <i>show</i> them and they will <i>see</i>, <i>involve</i> them and they will <i>understand</i>').</p>

7.3. Information Sharing Among Park Staff

Communication is important in Park staff management. Often managers are criticized for not communicating effectively. The practice at the Park is reported to be mostly top-down from CPW to field rangers. The current situation on information sharing must be improved.

Management Issue No.44: Information Sharing Among Park Staff.	
Policies	Actions and guidelines
An “open door” management approach will be adopted to allow staff and other stakeholders to engage Park management staff with issues at any time. This is also important in the gathering of intelligence.	Ag278. Create an “open door” communication environment. Ag279. Hold monthly meetings with Park staff and provide each staff with minutes of each meeting.
Park Management will ascertain that the methods for Park information gathering will always be applied meticulously. Monthly and at times quarterly or weekly meetings will be held by field staff (Wardens, Rangers, and Auxiliaries) each year.	Ag280. Apply the following information gathering methods at the Park: <ul style="list-style-type: none"> • Meetings should be held at various levels to review previous activities, address issues, and plan for future activities. • All Park Units should hold Weekly Meetings. • Zone Wardens should have monthly meetings with each Team. • The Park Operations Warden and Administrative Officer should have monthly meetings with HQ staff and Zone Wardens. • The Park Warden should have Quarterly Staff Durbars at each Zone and this should be followed by a Quarterly Senior Staff Meeting. • All meetings should be rotational for various locations to encourage on-site supervision and appreciation of prevailing situations. • Copies of minutes should be provided to staff and the Park Warden for review and action.
Notice Boards will be posted at the Park HQ Offices to provide information (circulars, notices, memos) on relevant issues and these will be continually updated, and old material filed for reference.	Ag281. Ensure Notice Boards are maintained and updated.
There will be daily Radio Call-ups to communicate information to all staff, and quarterly meetings will be held jointly between Central office and field staff each year.	Ag282 Conduct daily radio call-ups to all patrol teams and convene joint quarterly meetings each year between Central office and Park staff.
Minutes of Park Operation Meeting (POM) and Coordination Meeting (CM) will be circulated to update the staff on management issues.	Ag283. Circulate minutes of all meetings and ascertain that all attendees are furnished copies. Ag284. Unit Heads should hold monthly meetings and forward their minutes to the Park Warden as input for Quarterly Management Meetings.

7.4. Staff Training and Skills Development (In-situ, Ex-situ)

Training and capacity building for protected area management staff is often determined at the national level, but no structured system is in place to make the key decisions required. Details are needed about how and why individuals are recruited and how their performance is assessed and rewarded. At home (in-situ) and abroad (ex-situ), qualified staff of the Department of Conservation and the other departments at the FDA are pre-qualified for any training and capacity building opportunities. Rangers and auxiliaries being the foot soldiers for the Park, identifying their training needs and putting them through such training must be a priority. Immediate park staff supervisors (Wardens) and park administrators at FDA's Central Office in Monrovia must also undergo pertinent training and capacity building courses.

Examples of the general areas for training and capacity building for rangers and administrators (including Central Office personnel, Park and Zonal Wardens, etc.) include Park management; leadership and supervision; First Aid; arrest; prosecution procedures and intelligence gathering; participatory and adaptive management; law enforcement, resource monitoring and community outreach; safety, accident prevention and tourist guiding; skills and experience to implement the Gola Forest National Park Management Plan (GFNPMP); and conflict management and resolution. Other key areas for training and capacity building will be identified by training needs assessment exercises during the implementation of the Plan. In the recent past, most of the ex-situ training and capacity building was done in Ghana; the Plan proposes that other countries in Africa and other continents be considered in future training and capacity building opportunities.

Management Issue No. 45: In-Situ and Ex-Situ Training.	
Policies	Actions and guidelines
FDA will conduct a holistic training needs assessment and career path progression for all staff.	Ag285. Recruit a suitably qualified individual, an outsider, to undertake a detailed needs assessment exercise for FDA conservation and related agenda, to identify countries or institutions for training possibilities in various areas on PAs management.
A clear and consistent on-the-job training, verified by performance assessment on an annual basis, will be provided, and staff selection for training will be based on a systematic, transparent selection procedure.	Ag286. Design a PA Training Program and Manual for implementation. Ag287. Compile FDA's on-the-job training needs and develop a robust mechanism to monitor performance of on the job trainees.
All field staff should undergo six-week induction training within 6 months after recruitment.	Ag288. Design and provide field staff with a six-week general training course in leadership, bush craft, community interactions, infrastructure maintenance and anti-poaching tactics within 6 months after recruitment.
A one-day refresher training session for all Park staff at the Team level will be organized and conducted, as needed.	Ag289. Liaise with the FDA Central Office HR Division from time to time regarding any other available training opportunities or training needs it might suggest.
A specialized training based on a comprehensive needs assessment for individuals and groups will be undertaken periodically.	Ag290. Keep a training register to follow individual development and performance for each trainee and training course.
Leadership and management training will be carried out for staff holding leadership positions or those demonstrating leadership potential and promotional opportunities for fast tracking promising/deserving staff under this program will be created.	Ag291. Design and implement leadership and management training for staff holding leadership positions or those demonstrating leadership potential. Ag292. Evaluate all trainees before and after training activities to determine if the desired outputs are achieved .Results of this evaluation should be recorded for future reference. Ag293. The Chief Park Warden should ensure that: <ul style="list-style-type: none"> • Rangers (guards) receive monthly training.

	<ul style="list-style-type: none"> • Additional training is identified, planned and implemented. • Training records are properly maintained.
An exchange program, between Protected Areas in Liberia and other countries in the West African sub-region and beyond, will be established to facilitate national and regional integration of wildlife management.	Ag294. Design a national and regional integration exchange program for wildlife and habitat/ecosystem management.

7.5. Staff Performance Evaluation and Effectiveness

Appraisal of staff performance must be an integral part of management operations. This should be done each year and should serve as the basis to weed out non-performers and motivate others. Formats and guidelines will be prepared for conducting a personnel (rangers and auxiliaries) performance appraisal, which is partially based on a review of existing PA personnel staff ToRs. Policy recommendations and management guidelines will be developed to strengthen park-related activities for protected areas in general.

A personnel handbook detailing a general code of conduct for FDA staff will be made available to the park and disseminated to rangers. Taking all the above elements of a staff performance evaluation system into account, the Plan recommends a simple appraisal system for staff performance evaluation effectiveness: The Target-based Performance Appraisal.

Management Issue No.46: Evaluation of Performance Effectiveness	
Policies	Actions and guidelines
<p>A 3-phase system of “Target-Based Performance Appraisal” will be used for major annual appraisal of staff performance. The 3 phases of the system follow:</p> <p>Phase I: Setting of targets.</p> <p>Phase II: Feedback/periodic reviews.</p> <p>Phase III: End of year review and appraisal.</p>	<p>Ag295. Introduce the “Target-Based Appraisal” system to all staff and ascertain they have a total understanding of the process.</p> <p>Ag296. Design a specific Code of Conduct for law enforcement staff.</p> <p>Ag297. Review the previous year’s work of all staff to see what has been achieved in that year. The CPW will correct poor performance (and what this means should be agreed to some extent by the parties involved in this exercise) of individuals and identify training requirements.</p>
Conduct of Target-Based Performance Appraisal will be an annual event for staff.	Ag298. Ensure that completed staff performance appraisal forms are thoroughly discussed with the concerned staff before action is taken.

7.6. Staff Fitness and Etiquette Development

Park staff must be mentally and physically fit, and reasonably strong if they are to work effectively in the tough conditions in which they operate. It is therefore essential that they maintain full physical and mental fitness. To build their capacity for professional conduct, staff members need to acquire the correct forms of etiquette relationship to their supervisors, to each other and to the general public.

Management Issue No.47: Staff Fitness and Etiquette.	
Policies	Actions and guidelines
Park Management, especially Law Enforcement Staff, will operationalize a fitness building system.	<p>Ag299. Assemble a staff fitness building system and have it introduced to the staff.</p> <p>Ag300 Develop a set of rules that would sustain and maintain the system once it is put in place.</p> <p>Ag301. Conduct quarterly fitness exercises with all staff to see if they meet the required fitness standards for their duties. Staff who fail the fitness test must improve within a designated time or be considered for retirement on medical grounds if not suitable for other roles.</p>
Flexibility should be built into the “fitness system” so that it can respond to the requirements of fitness for both field and Central Office staff.	<p>Ag302. Arrange a weekly parade and drill session by all Teams, whether in the field or in offices. For patrol teams, this should fit into the Local Patrol schedule period.</p> <p>Ag303. Start the day with a muster parade at each zonal camp and HQ.</p>

7.7. Staff Rotation

It is important to rotate and transfer PA staff regularly. This is especially necessary for law enforcement and community engagement staff. Rangers (guards) kept in one place for too long can undermine a security plan.

Management Issue No.48: Staff Rotation	
Policies	Actions and guidelines
A system of periodically scheduled transfer of staff out of the Park to other PAs will be implemented. Ideally, this should coincide with promotion, and must be effected at least months before commencement of the academic year to allow for family integration into the new locality.	Ag304. Design and implement a fair rotational system of staff among the Park Zones and Teams
Rangers will be rotated internally among the Teams and Zones. If deemed necessary, only an individual should be rotated from each team, creating a rotation system. This means the entire team will have a complete turn-over in 3 years. Zone Wardens are to be rotated every 2 years among the zones.	Ag305. Liaise with HQ to implement a transfer system between PAs. In all cases, ensure that the Park is not deprived of essential staff before they have trained competent replacements.
Transfers in and out of the Park will be done from Central Office in Monrovia but can be initiated by the CPW. Rotation within a Zone should be made by the Zone Warden. The CPW can request the rotation of specific staff within the Park for strategic reasons, ensuring this does not undermine the operations of an affected Zone.	Ag306. Be sensitive to the social needs of the staff and do all that is possible to meet reasonable concerns.

7.8. Staff Welfare, Morale and Motivation

The FDA has developed a wide range of structural, organizational and personnel review, including Staff Welfare policies. These are, however, often too broad to address the particular needs of PA staff and are not adequately understood by them. Issues specific to the needs of Park staff include housing, health, food and transport. Under this Plan, staff welfare, morale and motivation will be improved through the provision of housing, transport, and health services.

Management Issue No.49: Staff Welfare, Morale and Motivation.	
Policies	Actions and guidelines
All staff will be equipped, well housed and well managed.	Ag307. Produce a comprehensive staff welfare document on planned actions about how to improve the current housing, health, food and transportation situation.
Payment for amenities and responsibility for maintenance of official residences for staff will be according to the FDA policy on these issues.	Ag308. Discuss the welfare document with all staff in a series of meetings to accommodate their concerns and ascertain that each member of the staff receives and understands this policy document.
A system of Health Needs Assessment in the FDA is needed and should be established.	Ag309. Design a system at the FDA to assess and determine what the basic health conditions and needs are and should be for all staff.
Records of all treatments for ill or injured staff will be inserted in the personnel files.	Ag310. Prepare a database for records on each staff that had been treated and such information must be properly stored and kept confidential.
All Park staff should undergo an annual physical test to determine their suitability for work, during which their physical record will be examined.	Ag311. Employ the services of competent and authorized health officials to carry out annual physical examinations of all staff.
AIDS/HIV Awareness Campaigns will be an integral part of training for Park staff.	Ag312. Establish close liaison with any local branch of a competent organization engaged in AIDS/HIV Awareness and Education campaigns.
First Aid training will be an integral part of the training schedule.	Ag313. Conduct First Aid training for a selected number of Park staff. Ag314. Prepare a list of clinics in each zone and near the HQ of the Park that the FDA recognizes for staff to attend if they are ill or feel ill.
The FDA will procure rations and will guarantee that the right amounts and types of food are procured and delivered on time.	Ag315. Ensure that all rations are procured from suppliers with quality food storage facilities. There are instances when canned food, bread and other food stuff are stored on shelves beyond their expiration dates. Such foodstuff normally becomes poisonous and should not be purchased and eaten.
All junior field staff (field rangers) will be provided with bicycles on a hire purchase system for which regular maintenance will be the responsibility of the owner, but the condition of the bicycle will be subject to regular administrative checks.	Ag316. Design and distribute a brochure illustrating best practices for bicycle maintenance, including the number of times per year when administrative checks on bicycles are to be done.
An annual maintenance allowance for depreciation of bicycles for official use will be given, subject to satisfactory maintenance reports.	Ag317. Staff provided with bicycles should prepare weekly or monthly reports on maintenance costs.

8. INFRASTRUCTURE AND EQUIPMENT

The main objectives of infrastructural development at a PA are to provide year-round access to (1) Selected destinations, and (2) Accommodation / office and storage facilities to meet the needs of management, researchers and visitors. In providing access, it is essential that such developments are established on sites as such as to minimize adverse environmental effects. Unless the required buildings, trails and other facilities are put in place, many of the recommendations for the development of the Park will be unattainable.

The Park is generally poorly served with roads and trails. Getting to the Park from any part of the country is extremely difficult and most communities and settlements around the Park are not easily accessible. Specific roads to the Park from any of the two counties and beyond must be carefully laid out and constructed. However, strict monitoring and sanctions regimes must be established and effectively operationalized to keep poachers and other offenders from entering the Park. Roads are always the beginning of the end for nature protection, providing entry points for weeds, invasive exotics, fires, and poachers of timber, animals and other products (see Findlay & Bourdages 2000, Forman & Alexander 1998). For the local human population, access to markets, schools and health services are also restricted and extension services are limited. Park management should work towards improving conditions for Park communities with respect to access and extension services.

8.1. Existing Park Infrastructure

Currently the Park lacks basic infrastructure such as trails and camps and there are few offices and residential buildings owned by individuals and families in the communities. The few existing offices and other types of buildings need to be rehabilitated and new infrastructure constructed. In the acquisition of land for construction and related purposes, compliance with international practices, such as FPIC and Voluntary Land Donation will be pursued and ensured.

8.2. Infrastructure Construction and Maintenance

Management Issue No.50: Infrastructure Construction and Maintenance	
Policies	Actions and guidelines
The Park's transport objectives will be integrated into the regional network, linking vehicle commuters with the Park and assisting with improved route alignment and roads designed to support tourism objectives and environmental best practice; only an assessment of the possibility for this regional transport will be undertaken in the Plan.	Ag318. Conduct a comprehensive assessment based on tourism and environmental drivers to evaluate the degree of positive or negative impacts of the road network and individual roads on tourists, vegetation, water bodies, wild animals and the Park as a whole. Ag319. For the Park and this Plan, properly demarcate each trail and provide signage depicting distance and direction at each junction and map out all trails to and within the Park.
Tracks and trails will be constructed at the Park to serve as routes for anti-poaching patrol, tourism and research and will remain so for this Plan.	Ag320. Maintain all future and current trails with higher standards, including clearing grasses and shrubs that normally grow on these trails.
Emphasis of the ultimate objective for tracks and trails as mentioned above, will at all times be placed on utilizing the boundary lines by authorized staff as patrol routes in anti-poaching duties.	Ag321. Engage community members on annual contract as a maintenance team for external boundaries, making sure that no particular individuals are permanent for this activity in a given community. Ag322. Apply gender sensitivity in the hiring of individuals in the community for certain contracts.
Maintenance patrols will be conducted over all trails and it must always be remembered that some of the trails will serve access purposes for tourists and researchers.	Ag323. Keep patrol teams and communities informed about people who go to the Park as tourists, researchers and so on, so that patrol teams and the communities will know of the presence of these visitors and be guided accordingly.

All efforts will be made to develop new trails when needed and to upgrade and maintain existing ones.	Ag324. Repair trails by patch gravelling and remove silt from culverts as frequently as necessary.
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The key to long-term benefits from Park infrastructure is maintenance. Field staff carries out many and varied routine operations. It is worth noting that with the progressive growth in infrastructure development, and research and tourism envisaged under this Plan, staff duties will increase. Without corresponding increases in staff, this will mean that staff time will be devoted to other tasks at the expense of important duties. For the purpose of the Plan, formalized and well-coordinated procedures will be put in place so that activities are planned as such as to match the number of available staff.

8.3. Trails, Tracks and Footbridges

There are trails in the Park and these can be used for patrols, research and tourism. Because of the biological surveys and inventories carried out in some parts of the Park, there must be a network of transects that can be used for patrols as well.

8.4. Buildings and Camps

Buildings and camps for the Park are major investment and must be carefully established and properly maintained in good condition as they are meant to be permanent.

Management Issue No.51: Construction and Maintenance of Buildings (Offices, residential) and Camps at the Park.	
Policies	Actions and guidelines
A number of camps will be constructed, and zone and patrol maps will be prepared to facilitate field work.	Ag325. Prepare a brochure on the buildings in the HQ of the Park and the zones, show-casing their location and the various facilities available in each.
All buildings and other camp structures will be properly maintained.	Ag326. Produce regulations for use of all buildings, post copies at vantage notice boards and provide copies to staff and visitors. Ag327. Provide a maintenance storeroom and workshop at Park HQ, to be controlled by a handyman and off limits to other staff unless otherwise directed by the CPW.
All staff and visitors must use the Park's facilities properly and carefully; restrooms and tents, for example.	Ag328. Permanent notices posted at each facility (tents, toilets, etc.) should define "properly" and "carefully" as they refer to the use of Park facilities.
Buildings and grounds will be maintained at regular intervals (quarterly or more often), and compliance will be enforced by the Park Administrator.	Ag329. The Park Administrator must develop and implement a mechanism to monitor and enforce compliance with policy statements on buildings and camps.
Building and grounds maintenance must be included in the budget request.	Ag330. The Park's Operations Warden (POW) should attend regular staff management meetings to help inform his program of maintenance activity.

8.5. Infrastructure Protection

Buildings and grounds are to be maintained during scheduled periods each year; a specific program for infrastructural protection at the Park will be put in place.

Management Issue No.52: Infrastructure Protection.	
Policies	Actions and guidelines
Depending on location and exposure to wind, short grass will be introduced and maintained against the risk of fire around buildings for at least 15 meters or more from the walls .	Ag331. Develop an infrastructure protection protocol and prepare Park and other staff to use it properly.
In any area serving fuel storage purposes, a minimum of grass or any vegetation will be cleared to create bare earth around the fuel store, and a further 20m of permanently short grass will be planted and maintained.	Ag332. Train a team of field staff to acquire and employ firefighting skills, including how to use fire extinguishers and other equipment to control and extinguish fire. Ag333. Procure/or otherwise make available at least one portable water extinguisher for each building for accidental fire.

8.6. Vehicles and Equipment

Staff requires transportation, equipment and communication to carry out their various responsibilities. Park staff, therefore, will be provided with vehicles (e.g. 4x4 light trucks, motorbikes, bicycles), camping and field operation gear (GPS units), protective clothing, communication equipment (e.g. radios and telephones), office furniture, generators, solar lighting units, audio-visual equipment, computers, and office desks and supplies. The existing policies, actions and guidelines governing the use and maintenance of vehicles and equipment will be reviewed and revised in the first few months of implementation for all vehicles that are to be purchased and made available for the Plan.

9. ECO-TOURISM

9.1. Eco-tourism Facilities of the Park

There are no tourist facilities in and outside the Park. A reception center for visitors and a number of huts and guesthouses, among other structures, will be constructed at Park headquarters and possibly in zonal camps. This Plan strongly recommends that the private sector be engaged to serve as a driver of ecotourism and related activities.

9.2. Potential for Income Generation from Tourism

Potential sources of income generation from tourism at the Park are: (i) Direct revenues, income for the Park through entrance fees, and for the local communities (through guide services, souvenir production, etc.); (ii) Employment created for people from the community (and outside) as tourist guides, office staff, drivers etc.; (iii) Company lodges and hotels that might exist through tourism; transport companies, artisans etc.; (iv) Sale of meals, food by local women, market women, farmers; and (v) payment from tourists for tribal dances and crafts, etc.

9.3. Potential Successful Ecotourism Opportunities

9.3.1. Avitourism

The GFNP is an internationally recognized landscape for birds. Avitourism (Birding, Bird watching)(IBE 2017, Stephen et al 2015, Lotz 2014), therefore, is the most appropriate and promising type of ecotourism for which the Park stands to gain the optimum and maximum in benefits (cash, environmental) with relatively little investment, and this is true for other Parks, the Sapo National Park in particular. Ecotourism requires and will receive good communication to get the public aware of ecotourist destinations and the opportunities thereof. The Bird watching Industry, a promising ecotourism venture, has a unique class of tourists in that they are almost entirely motivated by the concern for their own mental and physical health in which outdoor activity is desirable.

Many birdwatchers are involved in this industry due to interests in birds *per se* as well as photography. It is one of the fastest-growing outdoor activities worldwide (Jones & Buckley 2001). In the United States alone, the estimated number of birdwatchers is 48 million and more than 17 million of them are willing to travel out of the country for birding activities (IBE 2017). Paddle canoes can be used for bird watching trips and some of the Observation Structures discussed below (Management Issue No. 68) will benefit Avitourism.

Management Issue No. 53: Avitourism	
Policies	Actions and guidelines
Selected individuals in each of the Park's administrative zones will serve as guides for avitourists.	Ag334. Develop and employ criteria to identify, select, recruit, and train tourist guides from each of the administrative zones of the Park.
Given the current threat of terrorism around the world and the potential for lawlessness and violence in rural Liberia, birdwatchers will be given protection while at the Park.	Ag335. Engage private security service providers or any other providers, along with local counterparts to help address security threats against tourists in the Park or in camps located outside the boundaries of the Park. Ag 336. Develop and enforce rules to govern how birdwatchers should behave while in the Park.
Potential avitourists from around the world will be educated about Liberia and the Park prior to their visit to the country and eventually in the Park to avoid "cultural shocks" and other surprises which uninformed visitors may normally have.	Ag337. Prepare brochures, leaflets and any other documents to market the Park, particularly the areas where birdwatchers should go for birding and the types of accommodation and security available to them. Provide verbal orientation to birdwatchers and all tourists prior to their entry into the Park, as well as binoculars and other materials and equipment for birdwatching.

9.3.2. Caves, Rivers and Waterfalls as Tourist Destinations: The Park is endowed with rivers (Mano River) and waterfalls (Elephant Falls), two highly promising tourist attractions on which the Plan will focus.

9.3.3. Observation Structures: Observation structures are viewing platforms built to offer observers a better chance at seeing otherwise elusive or dangerous animals. These hides are ideal for avitourists who would like a more restful and inconspicuous way of viewing wildlife, particularly birds.

Management Issue No. 54: Observation Structures at the Park.	
Policies	Actions and guidelines
<p>Observation structures will be constructed at vantage points within the Park and will consist of:</p> <p>Observation hides: To help improve the chances of visitors seeing wild animals, it is desirable to build one or more game viewing and/or bird watching hides at suitable locations along the trails and rivers.</p> <p>Viewing platforms: To enhance the visitor's enjoyment of interesting features, such as large trees, waterfalls and pools.</p> <p>Observation towers: A tall, three-level (ground, mid canopy and emergent level) observation tower will be constructed on the side of suitable hills/mountains offering good views of the surrounding forest canopy.</p> <p>Feeding Stations and Salt licks: Almost all of the mammals found in the forest are nocturnal, cryptic or extremely wary and shy. Suitable feeding stations and salt licks to attract animals to specific viewing points will be established at appropriate sites within the Park to help give the best possible opportunities to see animal species living in the rainforest.</p>	<p>Ag338. Prepare a map for all the observation structures (observation hides, viewing platforms, observation towers, feeding stations and salt licks, etc.) to orient and educate visitors about them.</p> <p>Ag339. Construct a few pilot tree hides and monitor their use.</p> <p>Ag340. Ensure that adequate numbers of restrooms are available and well maintained and equipped at all times when avitourists and other tourist groups are to be accommodated at the HQ or Zonal camps.</p> <p>Ag341. Document and match the frequency of visits with the types of animals visited.</p> <p>Ag342. Set up a monitoring system to capture any difficulties with access to the site, prevailing wind direction while accommodating visitors, and "due diligence" for safety.</p> <p>Ag343. Ascertain that feeding stations are not established in or near the Park to keep wild animals wild.</p> <p>Ag344. Monitor the use of tree and other hides to ascertain their reliability and safety for tourist use.</p>
<p>The private sector (e.g. a civil engineer) will be allowed to build and or manage additional hides, subject to FDA approval.</p>	<p>Ag345. The private sector will be advised to submit any plans and evaluation to the FDA concerning the construction of hides which it wishes to undertake.</p>

9.4. Development of Trails, Tracks and Features

There are a number of trails in the Park that have been in use by rangers, miners and hunters, but Park management has to develop more trails, tracks and other features to serve anti-poaching and law enforcement interest, such as patrols, as well as ecotourism.

Management Issue No.55: Development of Trails, Tracks and Features at the Park	
Policies	Actions and guidelines
Network of tracks for game viewing will be established and maintained at all times, and all access to the Park will remain by footpaths.	Ag346. Map out existing tracks and ascertain that future features are also mapped out when constructed.
Additional tracks will be created to facilitate patrols and to link places of interest to tourists and other Park visitors.	Ag347. As much as may be deemed necessary, create new tracks to enable tourists to have access to the interior and other interesting sites within the Park.
FDA will bear full responsibility for maintaining all tracks except for those built by the private sector.	Ag348. While FDA bears full responsibility for maintaining all tracks and the authority to supervise and monitor those established by the private sector, the Authority may seek assistance from the private sector for its monitoring and supervisory tasks.
Private concessions will develop and maintain their own network of tracks for the exclusive use of their clients if need be, but such tracks will be supervised and monitored by the FDA.	Ag349. Ensure that all trails, tracks and other features of the Park are effectively monitored so that any level of damage to any of them is detected and repaired timely enough to avoid needless accidents and deaths to visitors and staff alike.

9.5. Construction of Park Entrances and Private Sector Involvement

Formal entrances are needed at PAs to create a good first impression to visitors. At this stage in the development of the Park, there is no formal entrance, and one will eventually be required and constructed.

Management Issue No.56: Construction of Formal Entrances to the Park & Private Sector Involvement.	
Policies	Actions and guidelines
An entrance gate to the HQ of the Park, for at least the life time of this Plan, will be constructed.	Ag350. Construct a Park entrance post at the most strategic location to serve as the formal entrance to the Park at least for the duration of the Plan.
A tourism concession arrangement with in-country tour operators will be facilitated to operate a simple concession at the Park, but extra care must be exercised to protect the Park from all criminal activities. Park management will advise potential visitors to the Park to travel with protective gears against midges that bite during the night.	Ag351. Train members of the Community Engagement and Tourism Unit to supervise operations of the tourism concessionaire, and to enact and enforce rules to guide against the Park becoming a den of social vices such as drug addition, drug pushing and wildlife poaching that could support trafficking . Ag352. Arrange for the management and leasing of the site with the in-country tour operators. Ag353. Prepare a simple and restricted tender and simple lease/contract to be awarded to the qualified operator. Ag354. Advise all visitors in advance about midges and other insects that might feed on them at night at the Park.

	Ag355. Use of the Base Camps by tourists and researchers may be decided by the CPW on a case-by-case basis.
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9.6. Tourist Camp Development

No facilities for tourists in or outside the Park currently exist. Motels may be constructed in county capitals (Bopolu, Robertsport) and bigger towns close to the Park to provide transient accommodation for tourists on their way to any ecotourism destinations in the Park and adjacent landscapes.

9.7. Tourist Activities and Guide Services

Walking tours (hiking), clearly, will be the main activity for visitors to the Park. This has and will undoubtedly be closely linked to other activities, such as research, game viewing, bird watching, butterfly watching and the simple and relatively unique experience of a rainforest ecosystem.

Management Issue No.57: Tourist Activities and Guide Services.	
Policies	Actions and guidelines
The primary aim of visits to the Park will be to provide a comprehensive and satisfying choice of recreational experience, to enhance the visitor's enjoyment and understanding of the forest, and at the same time serve as a source of revenue to the Park and local communities.	Ag356. Some rangers and auxiliaries should be given basic training in tour-guiding and a brochure detailing the primary aim of visits to the Park. Ag357. When tourists visit more frequently, the private sector and community members should be encouraged and supported to provide guiding services.
It is compulsory that tourists be accompanied by rangers when in the Park.	Ag358. Additional rangers and auxiliaries or community members should be trained as guides if need be in the future.
Guiding may be taken over by community members or the private sector in the future.	Ag359. The CPW and the Ecotourism Division should agree on rates for porter services with the communities.
Cultural tourism is to be encouraged and combined with eco-tourism.	Ag360. Implement a Code of Practice for tourism staff and include a guide training manual to raise standards.
Guided game viewing walks will be continued and gradually privatized when new facilities are operational.	Ag361. Broaden the knowledge base of rangers about animals and birds through expert training workshops on wildlife (animals, plants) to all who will serve as guides and by encouraging them to read reference books such as "Kingdom" and "Barrow and Demey".
When their new facilities are operational, private operators will train their own guides, primarily from the Park fringe communities. Standardized training will be provided for both private guides and park rangers.	Ag362. Management should monitor and evaluate standards and visitor satisfaction.

<p>Potential key tourist and guide services:</p> <ul style="list-style-type: none"> • Research Tourism, wildlife and nature tourism based on scientific research undertaken in Protected Areas. • Hiking, a relatively safe activity that involves walking through the rainforest. Much of the enjoyment of a rainforest is being able to wander quietly through the forest. • Viewing wild animals, an activity done on foot during the day and should be linked to the various observation points and feeding stations along or beside the trails. • Canoeing, an activity possible to some extent on the waters of the Mano River in Liberia and the Moro River in Sierra Leone. 	<p>Ag363. A tourism officer should be designated to maintain the parades each morning and afternoon, to ensure that the guides are well-dressed, punctual and sober.</p> <p>Ag364. Minimal fees for all the activities listed under “Potential key tourist and guide services” will be charged and suitably trained rangers will be authorized to offer guide services to tourists. Park management will ascertain that rangers do not neglect their primary duties of patrols and protection of the Park in the effort to render guide services through constant monitoring of their activities.</p> <p>Ag365. When tourists report to the HQ the CPW should arrange for them to be accompanied by a guide.</p> <p>Ag366. To protect the FDA and visitors, each tourist (and guide) must wear a life jacket while on the water.</p> <p>Ag367. Procure canoes and safety gears, such as life jackets, for visitors to the waterfalls who may also be interested in swimming and canoeing.</p> <p>Ag368. Train Park staff on how to use and maintain canoes.</p> <p>Ag369. Recruit trained and experienced swimmers to serve guide and rescue missions.</p>
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9.8. Directional Signs

All major road junctions should be signposted and mapped so that it is easy for tourists to find their position. Billboards will be installed along the major roads around the Park.

Management Issue No.58: Directional Signs.	
Policies	Actions and guidelines
<p>Signs will be erected at key places to help visitors orient themselves, locate features of interest, indicate the services provided, and access conditions and regulations pertaining to Park use.</p>	<p>Ag370. Construct and protect the signs on the main road to the Park from fire by making sure that no bushes grow around them, especially during the dry months of the year.</p> <p>Ag371. The on-site signs will complement centralized displays such as those at the Visitor Center at the HQ of the Park.</p>
<p>Signs posted along roads will be as conspicuous as possible to draw people’s attention, but those in the Park will blend with the environment as much as possible, with emphasis on the use of local materials. Within the Park, signs will be placed at appropriate vantage points to provide information on directions and regulations.</p>	<p>Ag372. Produce signs out of durable materials, such as iron panels, and have them placed at all the major junctions of tracks and paths to keep the visiting public informed.</p> <p>Ag373. Exercise care so that signs are tailored to the local context of the communities in which they are installed.</p>

9.9. Visitor Safety

There are several safety issues. Walking tracks in steep places may be dangerous and viewing points may not be fenced. Tracks may become unsafe after severe weather, and natural features, such as riverbeds and rock formations, present hazards when being explored and climbed by visitors. Some animals can be dangerous and some of the visitors can be very ignorant of how they should behave. It is therefore important to ensure that tourists understand the risks. The private sector will be contracted and requested to ensure the safety of visitors who register with the sector as clients.

Management Issue No.59: Visitor Safety at The Park	
Policies	Actions and guidelines
<p>A private security entity, with recognized experience in tourism, will be contracted to handle visitor safety and will be legally liable to any hazardous outcome.</p> <p>Park management will provide documented and verbal (on the site, where and when necessary) advice and instructions on potential and actual dangers where possible.</p>	<p>Ag374.Identify,select and recruit a suitably qualified private security firm to take responsibility for visitors' safety while in the Park, and the firm must collaborate with Park rangers and tourist guides in this pursuit.</p> <p>Ag375.Monitor all tourism operations, whether by rangers or private sector for compliance with safety regulations.</p> <p>Ag376. All tourism sites and guides should have qualified first-aid persons on their staff, and an appropriate first aid kit, including snake anti-venom. All guides should be trained in basic first aid procedures.</p> <p>Ag377. Prepare and distribute a brochure to tourists on the potentially dangerous places and animals in the Park.</p> <p>Ag378. Require tourists to sign a form to indemnify FDA in the event of an accident or death.</p>

9.10. Visitor Information and Guide Services

The Wildlife Atlas produced by Forest Partners International should be expanded to incorporate a pictorial Visitors' Guide and Checklist to the major Animal and Plants of the Park. These could be sold for a token fee at all camps and the Park HQ. More copies of basic information about the Park and its attractions need to be made available to travel agents, hotels, and airports and should significantly increase the awareness of Park visitors, before and as they arrive at the Park HQ.

Management Issue No.60: Visitor Information and Guide Services.	
Policies	Actions and guidelines
The aim of the Park's visitor interpretation program is to bring visitors to a point where they will fall in love with the forest, understand and appreciate its value and complexity, and care about its sustainable future.	Ag 379. Design brochures that are reflective of the reality on the ground in terms of what management would want visitors to see as per the purpose for having visitors at the Park in the first place. Ag380. The CPW and Tourism Officer should liaise with the Tourism and Awareness Division of the FDA to ensure accuracy of brochures.
Inexpensive or free information should be made available to tourists to improve their appreciation of the wildlife and the park. Such information could be gathered from sources such as reports, surveys and results from future research.	Ag381. Prepare and disseminate a wide variety of publications among tourists such as visitor maps, interpretative booklets on self-guided trails, checklists for birds, mammals, etc., educational pamphlets and leaflets containing guidelines on health, and safety. Ag382. Design a feedback mechanism for the various types of visitors to the Park and monitor feedback to leaflets so that current and future improvements can be made.
The Park will be advertised through professionally produced brochures which should be distributed through travel agents, airports, and hotels etc. Information/ documents will be updated every two years.	Ag383. Complete and edit the report on "Tourist attractions" into a simple leaflet with a map and reproduce copies of the Visitors' Guide and checklist of birds.
A cadre of suitably trained, skilled and licensed Tourist guides, comprising certain FDA staff and/or individuals drawn from local communities, will be hired to serve the Park.	Ag384. Produce copies of the mammal, reptiles, butterflies and other faunal species, prepare checklists and produce the map showing features of interest and the tracks in the Park.

9.11. Marketing and Advertising

Most tourists first hear about the Park from the internet, or from travel guides such as the Bradt Guide (and the “Rough Guide” and “Lonely Planet” series.) Sometimes, too, they hear of the Park from in-country sources such as tour operators or United Nations personnel. Such sources of information are generally accurate, though prone to some factual twists. A website on the Park could serve as a marketing tool. It will be helpful to reactivate the website, and have it integrated with the FDA and the CETU mandated to undertake official marketing and advertising tasks of the Park.

Management Issue No.61: Marketing and Advertising.	
Policy	Actions and guidelines
Advertising and marketing of the PAs of Liberia is the responsibility of the FDA Awareness Division, with support and information from the Park. A website will be developed to serve the Park’s overall marketing strategy. It will be reactivated and integrated with the FDA.	Ag385. Park management should always correct and comment on draft texts created by the CETU. Ag386. Park management should encourage the CETU to review the guide books and provide correct information. Ag387. Park management should assist the website designers and the CETU to provide accurate and up-to-date information on the website.

9.12. Code of Conduct for Park Visitors

Visitor safety and enjoyment of the Park are very important. To ensure a pleasant and successful visit, it is essential that all visitors adhere strictly to Park and community regulations which are intended for their protection and enjoyment.

Management Issue No.62: Code of Conduct for Park Visitors	
Policies	Actions and guidelines
Park management will produce a visitor’s Code of Conduct for distribution to and observance by all visitors. Visitors who fail to comply with the Code of Conduct will be asked to leave the premises of the Park.	Ag388. Issue copies of Visitor Code of Conduct to all visitors at the time of registration.

10. IMPLEMENTATION OF THE MANAGEMENT PLAN

The Gola Forest National Park Management Plan is prepared with the strong conviction that the Government of Liberia, employing resources at her disposal and the financial and technical assistance of her partners, will adequately fund and support its successful implementation. Currently, the Park is significantly benefiting from a number of internationally funded projects among them, the Gola Management Agreement (GolaMA), the Foya Forest Reserve, WABiCC's REDD+ Community Forestry initiative, the Liberia Forest Sector Project and Across the River Transboundary Peace Park Project (ARTP). The Adage Jensen Charity Foundation, the USAID and the European Union are among the funding agencies. The Rainforest Trust funded the crafting of this Management Plan. While Park management must seek and obtain sustained financial support from the leadership of these and other funding institutions, potential funding sources are suggested in the paragraphs that follow.

10.1. Potential Funding Schemes and Opportunities

10.1.1. Co-funding

Since the Plan embraces an integrated biodiversity conservation and community development management approach, it has a better chance to attract funding from multiple sources-funding is therefore a possibility. There are institutions in Liberia and around the world which may be willing to fund some of the activities the Plan proposes. What is needed is to identify such institutions and set up a team to do the marketing of such activities of the Plan. Given the multiple threats the Park faces, delays in its implementation would do us irreparable damage.

10.1.2. Protected Areas Trust Fund

While searching for co-funding from our friends and partners in Liberia and around the world, efforts must be made for a Conservation Trust Fund to provide long-term sources of funding for different aspects of the Park for the first 5 years. One of the most promising sources of fund is the Liberia Conservation Fund (LCF), which might be able to provide some assistance to the Gola Forest National Park after the LCF has been sufficiently capitalized.

10.1.3. Eco-tourism and research fees at the Park

There are also the potential for internally-generated funds from eco-tourism and research fees to contribute to Park management costs. It must always be remembered that by definition, the primary goal of the Park is biodiversity conservation, and that all efforts must be made towards achieving this objective. This will possibly be within the planning horizon of the Plan.

10.1.4. Funding /Investment in conservation

“Conservation investment - international investments in companies, funds, and organizations with the goal to generating both a financial and a measurable environmental result – is growing dramatically. In just two years, the total private capital committed to conservation investments jumped by 62%, to a total commitment of USD8.2 billion, tracked from 2004-2015”(Hamrick 2016). It is strongly recommended that the Co-management Advisory Body set up a Team to take full responsibility for defining and pursuing potential pathways for funding from Conservation Investment and the other potential sources of fund listed above, including the Liberia Conservation Fund.

10.2. Training and Capacity Building of Park Staff for Implementation of the Plan

This activity will have short-term and long-term objectives. For the short-term, suitably qualified individuals with recognized and time-tested competence will be selected, recruited and further trained to get the Plan off the printed pages. Those who will perform well could get an opportunity for more training either in Liberia or in any country for a longer-term training adventure. Keen attention will be paid to rangers and auxiliaries whose past performance has testified to their competence, commitment and trustworthiness. Rangers must be prepared to be a part of the team to implement the Plan. They must acquire knowledge and skills in conservation projects planning and implementation, facilitation skills, among others.

10.3. Organization of an Implementation Team (IT)

It may be helpful if the FDA would look beyond her staff in the search for members of the IT. A series of meetings should be held to develop guidelines on how best the IT can be structured and made operational. Formulation of Co-management committee(s) and the Advisory Board for implementation purposes are strategic first steps in this endeavor.

10.4. Annual Work Plans and Cost Estimates

At the start of each of the five years of the Plan, an Annual Work plan will be prepared. That means before activities actually begin in a given year, a thorough and detailed planning about the year's activities will be prepared and discussed in detail. Such planning normally takes about 2-3 days to do. Where the total budget of the Plan is available, a corresponding cost is estimated for each year during the planning process.

10.5. Monitoring, Evaluation and Updating the Plan

10.5.1. Monitoring progress

An important factor in the successful management of the Park will be regular, internal assessment of progress. Monitoring of progress should be undertaken on: (i) Activities the Management Plan proposes, (ii) Annual Work Plan, and (iii) An individual output level. Quarterly Park Management Meetings (PMM) will be held to review progress in activity implementation and overall performance of the Park. The minutes of these meetings will form an important source of reference material when the final review is carried out as part of each Annual Work plan. An annual staff appraisal will be conducted to ascertain staff efficiency and training requirements.

10.5.2. Evaluation of management performance effectiveness

Protected areas worldwide have adopted the protected areas Management Effectiveness Tracking Tool (METT). This has been successfully adopted in Liberia since 2010 by the efforts of IUCN who has worked so hard to promote its adoption in West African PAs. METT emphasizes management issues such as law enforcement, and information systems and financing, with little if any attention paid to social impacts. What is missing in the existing assessment framework such as METT is a comprehensive way to analyze the benefits and costs that local people experience and the impact these have on their wellbeing. The Plan proposes Social Assessment of Protected Areas (SAPA) as an approach to evaluating management effectiveness. It is an approach that enables users to identify appropriate indicators and tools to capture measure and analyze social impacts. SAPA is primarily aimed at protected area managers – state, private, family or community, enabling them to improve both policy and practice (Franks & Small 2016). The METT-SAPA partnership will serve as an additional tool for evaluating and upgrading the Plan.

10.5.3. Updating the Plan

Based on reviews of performance and continuous monitoring, modifications to the actions within the plan will be recommended. This recommendation will be made prior to the development of each annual work plan so that actions for each year can be adapted to meet the experiences of the year's implementation and of changing circumstances or new knowledge. In the final year of implementation of the Plan, a full review will take place of the achievement of the Plan's goal and objectives and this should be incorporated into the next planning cycle. Modifying and updating this Plan, including its policies and objectives, can only be carried out by the production and publication of a new Plan that will be approved by the FDA Managing Director.

10.6. Proposed Financing and Budgeting Framework

10.6.1. Financing

In Section 10.1.1. co-funding is suggested as one of the potential funding opportunities and is recommended as the most appropriate funding scheme for this Management Plan. The reason and rationale for this choice is clearly stated in the cited section. Expectations are that other management plans for National Parks in Liberia will adapt this approach to financing. Co-funding, by definition, is a funding mechanism through which two or more institutions or

centers (e.g. FDA, World Agroforestry Center, CI, FFI) share in funding a project or program of common interest. A co-funding format usually includes:

- **Pooled funding**, in which funders contribute to a collective fund that may be jointly administered by the group or by a lead donor or a third party;
- **Targeted co-funding**, in which funders deliberately but independently make a grant/loan to a common project, program, organization or an issue of common interest; and
- **Strategic alignment**, in which funders or partners agree to adopt joint or complementary strategies in pursuit of a common goal.

Implementation of this plan, obviously, requires huge sums of money in both recurrent costs (e.g. staff salaries , maintenance of vehicles , equipment and boundary lines maintenance; training and capacity building ; environmental education and conservation awareness; maintenance of the network of roads and trails in the park) and capital investment (e.g. construction of offices and staff residencies, expansion of field camps, trail network, and replacement of old vehicles and equipment). There are other types of related cost items that must be identified correctly and projected reasonably accurately. For example, costs for building infrastructure, equipment, and local participation mechanisms/environmental awareness are considered incremental, although some may involve separate recurrent costs. In preparing a budget, the issue of inflation must be kept in mind since the rate of inflation is quite uncertain but must be projected in spite of its unpredictability. The level of accuracy in estimating costs, however, is borne out of adaptive management (management by doing) not through written prescriptions.

10.6.2. Budgeting

In the planning horizon of 5 years, Annual Work Plans, proposed activities and corresponding schedules of activities will be prepared. For the first year (2019), however, considerable thinking needs to go into identifying activities which must be immediately funded and it is for such activities that an estimated budget is proposed here. The purpose of this budget is not, by any means, to present an exhaustive list of activities that are to be funded now or in the future. It is primarily meant to serve as an indication or illustration of budgeting as a process. Second, the table or matrix below is not an Annual Work Plan but an attempt to demonstrate how and why to expend a proposed budget of USD2,036,000.00 (Two Million and Thirty-six Thousand United States Dollars) for the first of the 5-year planning horizon. It is assumed and strongly believed that the FDA has the capacity to make this amount available through a co-funding arrangement. Adapting this financial framework, Annual Work Plans and the pertinent Estimated Costs could be easily estimated by the Implementation Team as such costs must be realistic and acceptably accurate.

Twelve (12) activities are identified as absolutely critical to implementation success of the Plan if undertaken in the first year, but the Implementation Team may add or delete any of these activities as may be deemed appropriate from its perspective. These activities, not listed in any particular order of priority, are (i) Staff recruitment and deployment; (ii) Establishment of administrative and resource-based management zones; (iii) Establishment of infrastructure (e.g. Park Headquarters, zonal centers, staff residencies, network of roads, tracks and trails in the Park, entrances to the Park); (iv) Procurement of equipment and vehicles (e.g. Trucks, bicycles, bikes, computers, GPS units, compasses); (v) Public environmental education and conservation awareness creation; (vi) Maintenance of the external boundary lines of the Park; (vii) Settling incompatible land use claims (e.g. farms, human settlements, plantations of tree crops) in the Park; (viii) Identification, restoration and protection of degraded area, and cultural and historical sites; (ix) Purchase of materials and supplies; (x) Identification and assessment of training and capacity building needs, and commencement of training and capacity building activities; (xi) Identification and assessment of threats to the Park and the conduct of biological (biomonitoring, inventory) and social (e.g. livelihoods, impact of Park management on communities) research; and (xii) Law enforcement. There is however a host of other activities along with the 12 key ones that are to be implemented. Table 11 shows these 12 key and related activities and their estimated costs.

10.7. Implementation Milestones of the GFNP-MP

Ref.No (Section)	Management Actions	Schedule of Activities (In Years)																										
		Jul 2019- Jun 2020				Jul 2020- Jun 2021				Jul 2021- Jun 2022				Jul 2022- Jun 2023				Jul 2023- Jun 2024										
3.2.1	External boundary maintenance																											
3.2.2	Definition and establishment of administrative and resource management zones																											
3.4	Monitoring of all the existing roads, trails, tracks and other means of access to and within the Park																											
3.5	Identification and management of cultural and historical sites																											
3.6	Habitat restoration																											

Glossary

Agroforestry: A dynamic, ecologically based land-use system that intentionally combines the production of herbaceous crops, woody perennials and animals, simultaneously or sequentially, to take fuller advantage of natural resources. Agroforestry encompasses a wide variety of practices, including intercropping of trees with field crops or grasses, planting trees on field boundaries or irrigation dikes, multistory and multispecies forest gardens or home gardens, and cropping systems using bush or tree fallows.

Alien plant species: Any plant or organism that has been introduced by humans into habitats outside their native range, either directly or indirectly and intentionally or unintentionally. These species have the potential to cause significant ecological damage, often outcompeting native species or changing the environment to such an extent that entire indigenous ecosystems may become threatened. Not all alien species are invasive; however, the chances of an invasive species being introduced increased rapidly with the number of alien introductions.

Biodiversity: The variety of all life forms - the different animals, plants and microorganisms, the genes they contain and the ecosystems they form, often considered on three levels – genetic diversity, species diversity and ecosystem diversity.

Community forestry: A model of participatory forestry initiatives, science, policies, institutions and processes that increase the role of all local people – including women, youth and disadvantaged groups, in governing and managing forests and forest resources. The importance of community forestry lies in its potential and ability to facilitate the incorporation of different interests and values in decision making for sustainable forest management.

Conservation: The management of the human use of the biosphere so that it will yield the greatest sustainable benefits to present generations, while maintaining its potential to meet the needs and aspirations of future generations.

Gender: The socially constructed roles, behaviors, activities and attributes that a given society considers appropriate for women and men. While sex and its associated biological functions are programmed genetically, gender roles and power relations and the power relations they reflect are a social construct – they vary across cultures and through time, and thus are amenable to change.

Gender equality: The equal rights, responsibilities and opportunities of women and men (girls, boys). It implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups - women and men. Gender equality is both a human rights principle and a precondition of sustainable, people-centered development.

GolaMA: A project that aims at ensuring that forests outside the Gola Forest National Park are also well managed to ensure connectivity across the wider landscape and for sustainable livelihoods to improve production so people in Park fringe communities have enough food to live without relying on more forest-damaging extractive activities. GolaMa means unity in a local language.

REDD+: An international mechanism involving policy approaches and incentives for reducing emissions from deforestation and forest degradation in developing countries. It encompasses the additional potential of conservation, sustainable management of forests and enhancement of forest carbon stocks. REDD+ initiatives have the potential to provide multiple benefits - in the realms of conservation, poverty reduction and reduction of greenhouse gas emissions.

Wildlife: All the indigenous biota, animals and plants, which occur in this Park and surrounding forested landscapes.

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APPENDICES

Table 3: Amphibians and reptiles of conservation value and concerns of the Park

Common name	Scientific name	IUCN (2016)/CITES status**
Ringed River Frog	<i>Phrynobatrachus annulatus</i>	EN
Ivory Coast Frog	<i>Hylarana occidentalis</i>	EN
Allen's Slippery Frog	<i>Conraua alleni</i>	VU
Yapo River Frog	<i>Phrynobatrachus villiersi</i>	VU
African Dwarf Crocodile	<i>Osteolaemus tetraspis</i>	VU/CITES II
Home's Hinge-Back Tortoise	<i>Kinixys homeana</i>	VU/CITES II
Big-eyed Forest Tree Frog	<i>Leptopelis macrotis</i>	NT
Togo Toad	<i>Amietophrynus togoensis</i>	NT
Sierra Leone Reed Frog	<i>Hyperolius chlorosteus</i>	NT
Wernuth's Reed Frog	<i>Hyperolius wermuthi</i>	NT
Cochran's Running Frog	<i>Kassina cochranae</i>	NT
Sierra Leone Water Frog	<i>Petropedetes natator</i>	NT
	<i>Phrynobatrachus alleni</i>	NT
Liberia River Frog	<i>Phrynobatrachus liberiensis</i>	NT
	<i>Phrynobatrachus phyllophilus</i>	NT
	<i>Ptychadena superciliaris</i>	NT
	<i>Varanus ornatus</i>	CITES II
Royal Python	<i>Python regius</i>	CITES II
**Explanation of IUCN's Categories for Threatened Species (See this Table and Tables 4,5,6,& 10 below): CR = Critically Endangered, DD =Data Deficient, EN =Endangered, LC =Least Concern, NT =Near Threatened, VU =Vulnerable		

Table 4: Bird species of global conservation concern in the 'Greater Gola Landscape' forests

Common name	Scientific name	IUCN Status (2016)
Globally threatened species (A1)		
Hooded Vulture	<i>Necrosyrtes monachus</i>	CR
Timneh Parrot	<i>Psittacus timneh</i>	EN
Gola Malimbe	<i>Malimbus ballmanni</i>	EN
Woolly-necked Stork	<i>Ciconia episcopus</i>	VU
White-breasted Guineafowl	<i>Agelastes meleagrides</i>	VU
Yellow-casqued Hornbill	<i>Ceratogymna elata</i>	VU
Brown-cheeked Hornbill	<i>Bycanistes cylindricus</i>	VU
Western Wattled Cuckooshrike	<i>Campephaga lobate</i>	VU
White-necked Picathartes	<i>Picathartes gymnocephalus</i>	VU
Yellow-bearded Greenbul	<i>Criniger olivaceus</i>	VU
Crowned Eagle	<i>Stephanoaetus coronatus</i>	NT
Blue-moustached Bee-eater	<i>Merops mentalis</i>	NT
Lagden's Bush-shrike	<i>Malaconotus lagdeni</i>	NT
Green-tailed Bristlebill	<i>Bleda eximius</i>	NT
Rufous-winged Illadopsis	<i>Illadopsis rufescens</i>	NT
Copper-tailed Starling	<i>Lamprotornis cupreocauda</i>	NT
Yellow-footed Honeyguide	<i>Melignomon eisentrauti</i>	DD
Restricted-range species (A2)		
Upper Guinea forests EBA (084)		
White-breasted Guineafowl	<i>Agelastes meleagrides</i>	VU
Brown-cheeked Hornbill	<i>Bycanistes cylindricus</i>	VU
Western Wattled Cuckooshrike	<i>Campephaga lobate</i>	VU
Yellow-bearded Greenbul	<i>Criniger olivaceous</i>	VU
Rufous-winged Illadopsis	<i>Illadopsis rufescens</i>	NT
White-necked Picathartes	<i>Picathartes gymnocephalus</i>	VU
Sharpe's Apalis	<i>Apalis sharpie</i>	LC
Gola Malimbe	<i>Malimbus ballmanni</i>	EN
Copper-tailed Starling	<i>Lamprotornis cupreocauda</i>	NT
Biome-restricted species (A3)		
Guinea-Congo Forests biome (A05)		
128 of the 187 species occurring in Liberia and Sierra Leone confined to this biome		

Table 5: Mammal species of global conservation concern recorded during the ARTP 2010-2013 (Hillers et al. 2013) and the Foya Forest Rapid Feasibility Study (SCNL 2017)

Common name	Scientific name	IUCN status (2016)
Western Chimpanzee	<i>Pan troglodytes verus</i>	EN
Western Red Colobus	<i>Piliocolobus badius</i>	EN
Pygmy Hippopotamus	<i>Choeropsis liberiensis</i>	EN
Jentink's Duiker	<i>Cephalophus jentinki</i>	EN
Western Pied Colobus	<i>Colobus polykomos</i>	VU
Leopard	<i>Panthera pardus</i>	VU
White-bellied Pangolin	<i>Phataginus tricuspis</i>	VU
Giant Ground Pangolin	<i>Smutsia gigantea</i>	VU
Diana Monkey	<i>Cercopithecus Diana</i>	VU
African Forest Elephant	<i>Loxodonta cyclotis</i>	VU
Zebra Duiker	<i>Cephalophus zebra</i>	VU
Sooty Mangabey	<i>Cercocebus atys</i>	NT
Olive Colobus	<i>Procolobus verus</i>	NT
Yellow-backed Duiker	<i>Cephalotus silvicultor</i>	NT
Bay Duiker	<i>Cephalotus dorsalis</i>	NT
Pohle's Fruit Bat	<i>Scotonycteris ophiodon</i>	NT
Straw-coloured Fruit Bat	<i>Eidolon helvum</i>	NT
Upland Horseshoe Bat	<i>Rhinolophus hillorum</i>	NT
Dark-brown Serotine	<i>Neoromicia brunnea (Pipistrellus brunneus)</i>	NT
Large-eared Free-tailed Bat	<i>Otomops martiensseni</i> *	NT
Buettikofer's Shrew	<i>Crocidura buettikoferi</i>	NT
Large-headed Forest Shrew	<i>Crocidura grandiceps</i>	NT

Bongo	<i>Tragelaphus eurycerus</i>	NT
Slender-tailed Squirrel	<i>Protoxerus aubinnii</i>	DD

* - sight records only but considered to be this species, if confirmed these will be the first records for Liberia and Sierra Leone

Table 6: Amphibian and reptile species of conservation concern recorded during the ARTP 2010-2013 Hillers et al 2013) and the Foya Forest Rapid Feasibility Study (SCNL 2017)

Common name	Scientific name	IUCN (2016)/CITES status
Ringed River Frog	<i>Phrynobatrachus annulatus</i>	EN
Ivory Coast Frog	<i>Hylarana occidentalis</i>	EN
Allen's Slippery Frog	<i>Conraua alleni</i>	VU
Yapo River Frog	<i>Phrynobatrachus villiersi</i>	VU
African Dwarf Crocodile	<i>Osteolaemus tetraspis</i>	VU/CITES II
Home's Hinge-Back Tortoise	<i>Kinixys homeana</i>	VU/CITES II
Big-eyed Forest Tree Frog	<i>Leptopelis macrotis</i>	NT
Togo Toad	<i>Amietophrynus togoensis</i>	NT
Sierra Leone Reed Frog	<i>Hyperolius chlorosteus</i>	NT
Wernuth's Reed Frog	<i>Hyperolius wernuthi</i>	NT
Cochran's Running Frog	<i>Kassina cochranae</i>	NT
Sierra Leone Water Frog	<i>Petropedetes natator</i>	NT
	<i>Phrynobatrachus alleni</i>	NT
Liberia River Frog	<i>Phrynobatrachus liberiensis</i>	NT
	<i>Phrynobatrachus phyllophilus</i>	NT
	<i>Ptychadena superciliaris</i>	NT
	<i>Varanus ornatus</i>	CITES II
Royal Python	<i>Python regius</i>	CITES II

Table 7: Dragonflies and Damselflies of conservation importance in the 'Greater Gola Landscape' forests

Scientific name	Status (IUCN 2016)	Comments
<i>Agriocnemis angustirami</i>	VU	
<i>Orthetrum sagittal</i>	DD	
<i>Paragomphus kiautai</i>	DD	
<i>Paragomphus tournieri</i>	DD	
<i>Sapho fumosa</i>	DD	
<i>Tragomomphus christinae</i>	DD	
<i>Atoconeura luxata</i>		Regionally vulnerable
<i>Porpax bipunctus</i>		Regionally vulnerable
<i>Chlorocypha luminosa</i>		Upper Guinea endemic
<i>Diastatomma gamblesi</i>		Upper Guinea endemic
<i>Eleuthemis</i> n. sp.		New species, possibly an Upper Guinea endemic
<i>Gynacantha</i> n. sp.		Near endemic
<i>Idomacromia p. couturier</i>		New species, possibly an Upper Guinea endemic
<i>Lestinogomphus matilei</i>		Upper Guinea endemic
<i>Microgomphus</i> sp.		New species, possibly an Upper Guinea endemic
<i>Paragomphus</i> n. sp. nr <i>elpidius</i>		New species, possibly an Upper Guinea endemic
<i>Phyllomacromia aeneothorax</i>		Upper Guinea endemic
<i>Phyllomacromia Sophia</i>		Upper Guinea endemic
<i>Prodasineura villiersi</i>		Upper Guinea endemic
<i>Pseudagrion cyathiforme</i>		New species, possibly an Upper Guinea endemic

<i>Pseudagrion</i> n. sp. nr <i>massaicum</i>		New species, possibly an Upper Guinea endemic
<i>Tragogomphus</i> sp. n. <i>aurivillii</i>		New species, possibly an Upper Guinea endemic
<i>Trithemis</i> <i>Africana</i>		Upper Guinea endemic
<i>Urothemis</i> n. sp.		Near endemic
<i>Zygonyx chrysobaphes</i>		Upper Guinea endemic
<i>Zygonyx</i> n. sp. nr <i>flavicosta</i>		New species, possibly an Upper Guinea endemic

Table 8: Category and Exceptional Resource Value of the Gola Forest National Park

Category	Key Examples of Summarized Exceptional Resource Value
Climate change (adaptation and mitigation)	<ul style="list-style-type: none"> One of the world's most important terrestrial ecosystems (tropical rainforests) that captures and stores carbon, arguably the most notorious greenhouse gas. The Park helps to moderate temperature extremes and influences rainfall patterns and intensities.
Community values	<ul style="list-style-type: none"> Sustained supply of water for many Park fringe communities who depend on this forested landscape for water and a host of other products. Evidence of strong potential for community participation in management because of the sustainability the Park's existence ensures in benefits such as non-timber forest products (NTFPs), and cultural, spiritual and related values. Strong potential for modest levels of income generation by local communities, through the development of nature-based tourism and small and medium forest-based enterprises that do not threaten biodiversity.
Conservation values	<ul style="list-style-type: none"> A biodiversity hotspot of global significance, with exceptional wealth of animals and plants of conservation value, rare, locally and regionally endemic, locally restricted to a specific biome and support for Data Deficient species. Habitat of key landscape species (e.g. Elephants, Leopard) which are assumed to migrate within and between forested areas in large home ranges that serve conservation and management planning purposes. Suitable habitat for globally threatened animals (e.g. Pygmy hippopotamus). Connection to other large and extensive areas of forests (eg. Foya National Forest) for wide-ranging large mammals such as the African Forest Elephant. Strong evidence that new species, animals and plants in particular, will be added to those already discovered (e.g. <i>Orthetrum sagitta</i>). Heterogeneity of forest types hence a rare diversity of associated animals, plants and other organisms within each forest type.

	<ul style="list-style-type: none"> • Recognized as Important Bird and Biodiversity Area (IBA) and the Upper Guinea Forests Endemic Bird Area (EBA). • Contains elements fulfilling the criteria of all six High Conservation Values (HCVs) that include endemic and threatened species, habitats, ecosystem services and socio-economic resources.
Cultural values	<ul style="list-style-type: none"> • Potential existence of sites (e.g. Caves, graves, etc) of cultural significance, thus bestowing on the Park the greatest potential for a successful co-management arrangement with local communities. • Reputed as the only habitat for certain plants for non-commercial value (spiritual, health), the Park could contribute to the stability of local languages and local knowledge systems. Local herbalists' vocabulary, for example, could be enriched by the availability of certain herbal plants in the Park whose structures (barks, leaves, and roots) are often used as sources of raw materials for herbal medicines upon which local residents depend to cure or treat diseases.
Education values	<ul style="list-style-type: none"> • Supports opportunities for visitors, including students and scientists, to acquire and interpret knowledge about the cultural and natural values of the Park. • Provides opportunities for conservation learning for primary, secondary and tertiary academic pursuits. • Offers training, capacity building and increases awareness of locals on the importance of a healthy environment. • Assists and enables communities to identify, understand and appreciate the non-financial benefits, ecosystem services and ways in which the forest and other natural resources serve as the foundation for local livelihood strategy.
Research values	<ul style="list-style-type: none"> • A demonstrated potential for more research on faunal and floral species as revealed by surveys largely undertaken in forested landscapes of which the Park is an integral part, where new species had been discovered and the uncommon endemism was reported. • Reports from the socio-economic and related surveys show an extensive list of potential research challenges which must be met if governance and management activities of the Park are to be successful. • Offers opportunities for research which would add significantly to the baseline for West Africa and conservation science through its richness and conservation importance.
Recreational and tourism values	<ul style="list-style-type: none"> • Excellent opportunities for viewing a diverse range of native floral and faunal species (e.g. Birds – populations of White-necked Picathartes, White-breasted Guinea fowl, Gola Malimbe, monkeys), including threatened, rare, endemic and endangered species. • Wilderness qualities (the fact that the Park is a long distance away from Monrovia and other major towns). • Outstanding opportunities for Transboundary visitations and cultural exchanges that could contribute significantly to regional expenditure that could also foster regional peace.

	<ul style="list-style-type: none"> Evidence of nature-based recreation and tourism sites of promising and exceptional aesthetic value (e.g. Moro River and Vanjeima waterfalls and the Elephant Falls on the Mano River).
Watershed values	<ul style="list-style-type: none"> A critically important watershed that regulates hydrological flows, functions as the key element of the hydrological cycle, and captures, stores, and gradually supplies water bodies with clean and quality water for household use at no cost other than the effort put into collecting water from creeks and streams near towns and satellite villages where no hand pumps and wells are available. Constantly recharges the ground water table, thus sustaining water supply where wells are used.

Table 9: The list of towns and satellite villages of fringe and adjacent communities of the GFNP

Counties	Towns and Satellite Villages*
GbarpoluCounty	<p>Sonah Greek,Beakende,Bear Bear Camp,Boakai,</p> <p>Camp Alpha, Daniel Camp,Dunor Camp,Fulah Camp, Hunter Camp,Kangoma Camp,Kungbor</p> <p>Money Camp, Monkey Dunyah,Nomo,Nyokor</p> <p>SLC,Smith Village, Thomas Camp,Tima Village</p> <p>Tonglay,ULC/Gola Village,Umaru Village,</p> <p>Wango Village, Zuie.</p>
Grand Cape Mount County	<p>Alfred Quish's Camp,Bassa Village,Borborbu,</p> <p>Butter Hill, Camp Israel,Caterpillar,Claim 20</p> <p>Claim 21,Claim 5,Corwood Village,Fahnyema</p> <p>Fofana Camp,Fornor,Fula Camp/Garson</p> <p>Gbanjarla,Gbanju,Gohn,Green Bar City,Guworbu,</p> <p>Iron Gate,Kamara Camp,Kawelahun,Kingston,</p> <p>Konjay,Kpelleh,Kpelleh Village,Kranhn Town,</p> <p>Loleah,Mafapeya,Middle East,Morlar,Nyekehun,</p> <p>Old Lady Village, Paye Village, Soso Camp, Talaban Base.</p>
<p>*So far at least 51 towns and satellite villages on specific landscapes in the two Park counties, constitute Park fringe and adjacent communities .Of this total ,22 are 1-5 hectares away from the Park boundary at different points; 21 are 6-10 hectares; 7 fall within 11-16 hectares (inclusive), and 1 is 29 hectares.</p>	

Table 10: Stakeholder analysis of the Gola Forest National Park

Stakeholder Analysis Profile Matrix			
Stakeholder or Stakeholder sub-group	Interest in the GFNP	Effect of GFNP on their interests	Capacity/Motivation to participate
Forestry Development Authority (FDA)	Oversees the management of all protected areas in Liberia including the GFNP. Focus in the GFNP on law enforcement.	Positive: establishment of the GFNP will help build capacity and provide the Government with a flagship site to demonstrate its commitment to conserve biodiversity, mitigate climate change and involve local communities in protected areas management and benefit sharing.	High
Environmental Protection Agency (EPA)	Responsible for implementing the national environmental policy and sustainable management law for the protection of natural resources in Liberia.	Positive: Establishment and effective management of the GFNP will assist the EPA in fulfilling its statutory responsibilities. The EPA's support for the establishment of co-management agreements will be essential.	High
National Protected Areas Authority (NPAA) and Forestry Division, Sierra Leone (FD)	Development and implementation of a transboundary Action Plan	Positive: complementary and supportive management of the 'Greater Gola Landscape' forests will enable the FD and FDA to fulfil their conservation objectives.	High
GFNP staff	Responsible for day to day management of GFNP.	Positive: direct employment of staff, opportunities for training and development and improved engagement with local communities.	High
SCNL	National NGO and BirdLife Partner, major focus and support on biodiversity and livelihood activities, as well as advocate and technical adviser for the establishment of the GFNP.	Positive: designation and future management of the GFNP will be a major achievement for the organisation. Activities carried out to date have significantly increased the technical capacity of the organisation and raised its profile both nationally and internationally, as well as establishing a positive working relationship with the	High

		Government opportunities for creating ongoing collaboration.	
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Stakeholder Analysis Profile Matrix			
Stakeholder or Stakeholder sub-group	Interest in the GFNP	Effect of the GFNP on their interests	Capacity/ Motivation to participate
CSSL	National NGO and BirdLife Partner, major advocate and technical adviser for the establishment of the GRNP, sits as Director and Member of the Gola Rainforest Conservation LG responsible for the management of the GRNP.	Positive: designation and management of the GRNP provides a strong incentive for the designation of the GFNP to create the transboundary peace park. Activities carried out to date have significantly increased the technical capacity of the organisation and raised its profile both nationally and internationally, as well as establishing a positive working relationship with the Government creating opportunities for ongoing collaboration.	High
RSPB	International NGO and BirdLife Partner, coordinating the multi-disciplinary studies that have supported SCNL towards the establishment of the GFNP, provides expertise on best international practice.	Positive: protection and management of the GFNP and its biodiversity are key interests for the organisation.	High
Local communities	Communities living in and around the GFNP; all rely on the forest and its resources for their livelihoods to a greater or lesser extent; they are also the primary agents of damaging activities.	Generally positive: whilst establishment of the GFNP will restrict some of their current activities, it will also provide opportunities for the development of alternative sources of income as well as safeguarding cultural practices. The development of cooperative protection and management mechanisms is essential.	High
Local administrative leaders	This includes the District Commissioners, Paramount Chiefs and Town Chiefs. Public support of these is critical.	Positive: establishment of the GFNP will affect people in their constituencies, ideally leading to increased livelihoods and standards of living.	High

Stakeholder Analysis Profile Matrix			
Stakeholder or Stakeholder sub-group	Interest in the GFNP	Effect of the GFNP on their interests	Capacity/ Motivation to participate
National law-makers (House of Representatives and the Senate)	Approve the legislation supporting the establishment and long term protection and management of the GFNP	Positive: national legislation underpins the GFNP.	High
National and International donors	Additional research work and capacity building of staff of the GFNP/FDA/SCNL are required to ensure effective protection and management of the GFNP.	Positive: provision of equipment and training fulfils the statutory or charitable aims.	High
Liberia Immigration Service	Ascertain that the migration of people across the Liberian-Sierra Leonean border is legal, especially foreigners who habitually engage in farming, hunting, mining, and any of such activities on the Liberian side of the border.	Positive: Strict enforcement of immigration laws will reduce the population explosion underway in Park fringe and adjacent communities and the illegal activities this ensures.	High
Ministry of Lands, Mines and Energy	Organize, train, and employ a Task Force to monitor and annually review all permits the Ministry issues, and to assess and determine full adherence of mining contractees to the letter of such contracts.	Positive: Currently, reports are that each mining contractee is using a single permit to carry out mining on multiple sites. Creation and fielding of a monitoring Task Force will put a lid on this malpractice.	High

Table 11: Activities*, Cost Estimates and Illustrative Budget for Implementation of the GFNP

Management Plan Budget

Activity	Examples of the Types of Information Required for Reasonable Accuracy in Estimating Costs	Cost Estimates(USD)
Staff recruitment and deployment	Sufficient knowledge about the various Park administration and management assignments required, the number of staff needed for each assigned task and projections of human resource management need in the face of retirement are variables that could inform staff recruitment and deployment.	70,000
Establishment of administrative and resource management zones.	Zonation of the Park is a key activity. However, the number of administrative and resource management zones in practice can only be determined during implementation. When these zones are actually defined from the printed pages to the ground, then the cost for zone establishment can be determined fairly accurately.	25,000.00
Establishment of infrastructure.	The number and types of infrastructure have to be determined before establishment costs can be estimated with an acceptable degree of accuracy.	630,000.00
Procurement of equipment and vehicles (including fuel/gas, maintenance and repairs).	The number and types of vehicles needed may be easily stated but cost estimates will require data and information whose collection will only be possible during implementation.	750,000.00
Public environmental education and conservation awareness creation.	The number and types of environmental education and conservation activities must first be identified. How many times in the year such activities will be undertaken, and the number of participants and cost per each of these events can then be estimated with reasonable accuracy.	25,000.00
Maintenance of the external boundary of the Park.	Park management has the experience to determine the man power need, frequency and the cost for this activity per year.	5000.00
Settling incompatible land use claims in the Park.	A fairly accurate information and data are required on the number and size of farms, settlements, degraded areas and abandoned mining sites, among other types.	3500.00
Identification and restoration of degraded areas, and location of cultural and historical sites.	Restoration is possible through artificial and natural regeneration. Naturally assisted regeneration has no cost but takes so much time; artificial means of regeneration are normally faster but must be funded.	2500.00
	Specificity is required for the types, quantity and quality of materials and supplies for offices,	

Purchase of materials and supplies.	residencies and so forth; finally, the costs of these items can then be estimated on an informed basis.	75,000.00
Identification and assessment of training and capacity building needs, and commencement of training and capacity building activities.	Training and capacity building begin with needs assessment. After needs are assessed and are matched with trainees, a decision has to be taken on how many people are to be trained, where (at home, abroad) and how long the training is to be done, and then the cost per trainee.	80,000.00
Identification and assessment of threats to the Park and commencement of the conduct of biological (biomonitoring, inventory) and social (e.g. livelihoods, impact of Park management on communities) research.	The cost for threats assessment and the conduct of biological and social research will, largely, come as payments to experts in these fields for their technical services.	150,000.00
Law enforcement	The current number (28) of Park Rangers and Auxiliaries, if not stretched beyond reason, could handle this job but this number appears not to be enough. Law enforcement is extremely critical to the identification and mitigation/ avoidance / interdiction of threats (direct, indirect) to the Park.	20,000.00
Administrative and inflationary costs		200,000.00
Total		USD2,036,000.00
<p>*These activities are a manifestation of the key sets of planned actions to be taken in delivering on the 62 (sixty two) management issues embodied in Chapters 3-10 of the Plan. Preparation of Annual Work Plans and the Estimated Costs associated with them will pay keen attention to the identification and selection of each of the Implementation Milestones listed in Section 10.7. In spite of the examples given to inform a relatively accurate estimation of costs, illustrative cost estimates are projected per activity and only realities on the ground and those with experience in each of the proposed activities could make the final judgment here. In other words, the estimated costs are largely hypotheticals as they are not suggested on the basis of realities that can only be captured through implementation. The Implementation Team will have the opportunity to determine the reality of these activities and the corresponding cost estimates; these sets of actions are, however, proposed as credible and essential elements of a financing and budgeting framework.</p>		