

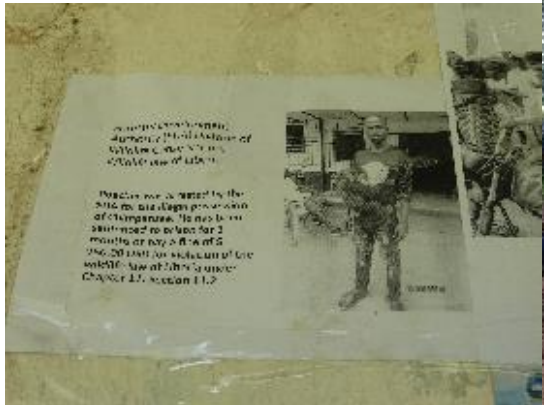


DRAFT MANAGEMENT PLAN FOR THE GREBO-KRAHN NATIONAL PARK 2022 –2026

**Draft 1.3. prepared by Tamar Ron for FDA
In collaboration with Kolleh Bangura, Richard Sambolah and Santiago Ormeno,
including stakeholder consultations, and following local and regional validation,
presented to national validation**

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Photos: Tamar Ron

List of Acronyms

BNS	Basic Necessities Survey
BSC	Bilateral Steering Committee
CBD	Convention on Biological Diversity
CBO	Community Based Organization
CENFOR	Centre for Environment, Forest Conservation and Research
CF	Classified forest
CFC	Clan Forest Committee
CFMB	Community Forest Management Board
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CKMS	Conservation Knowledge Management System
CLMDC	Community Land Management and Development Committee
CMS	Convention on the Conservation of Migratory Species of wild animals
CSO	Community Schemes Ombud Services
ECOWAS	Economic Community of West African States
EKMS	Environment Knowledge Management System
EPA	Environmental Protection Agency
ESIA	Environmental and Social Impact Assessment
EU	European Union
FBO	Fixed-Based Operators
FDA	Forestry Development Authority
FFI	Fauna and Flora International
GEF	Global Environment Fund
GIS	Geographic Information System
GIZ	Gesellschaft für Internationale Zusammenarbeit (German Corporation for International Cooperation)
GKNP	Grebo-Krahn National Park
GoL	Government of Liberia
GSM	Global Systems for Mobile Communication
HQ	Headquarters
HWC	Human-Wildlife-Conflict
IAS	Alien Invasive Species
IDH	The Sustainable Trade Initiative
IMET	Integrated Management Effectiveness Tool
IPPC	International Plant Protection Convention
ITTO	International Tropical Timber Organization
IUCN	International Union for the Conservation of Nature
IWT	Illegal Wildlife Trade
KfW	Kreditanstalt für Wiederaufbau
LAC	Limits of Acceptable Change
LISUPED	Liberia Initiative for Sustainable Peace and Development
LLA	Liberia Land Authority
LUMP	Land Use and Management Plan
M&E	Monitoring and Evaluation
MAP	Multi-Agrisystems Promoters

MINEDD Ministry of Environment and Sustainable Development
 MME Ministry of Mines and Energy
 MOU Memorandum of Understanding
 NAPA National Adaptation Plan of Action
 NBSAP National Biodiversity Strategic Action Plan
 NDC National Determined Contribution
 NECOLIB National Environmental Commission of Liberia
 NGOs Non-Governmental Organizations
 NP National Park
 NTFPs Non-Timber Forest Products
 OIPR Office Ivoirien des Parcs et Réserves (Ivorian Office of Parks and Reserves)
 PA Protected Area
 PAMAC Protected Area Management Advisory Committees
 PPP Public-Private-Partnership
 SCNL Society for the Conservation of Nature of Liberia
 SNP Sapo National Park
 SODEFOR Société de Développement Forestier (Forest Development Corporation)
 SWOT Strengths, Weaknesses, Opportunities and Threats
 TGS Tai-Grebo Krahn-Sapo forest complex
 TLETC Transboundary Law Enforcement Technical Committee
 TNP Tai National Park
 USAID United States Agency for International Development
 VSLA Village Saving and Loan Associations
 WA BiCC West Africa Biodiversity and Climate Change
 WASH Water and Sanitation
 WB World Bank
 WCF Wild Chimpanzee Foundation

Acknowledgments

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Executive Summary

This Draft Management Plan lays the basis for initiating the management of the GKNP during 5 years (2022-2026). The Plan defines an on-going process of monitoring and evaluation and of assimilating increased knowledge base and lessons learned, for enabling constant improvement of the management plan, with permanent stakeholders' engagement.

The defined vision of the GKNP, as defined and adopted in agreement of the key stakeholders (Fishtown declaration, 2017) is: *to protect the biodiversity and cultural values of the park and to sustainably manage its natural resources, for current and future generations, by ensuring that the agreed boundary harmonization and demarcation is maintained, that illegal activities are abolished, that community empowerment and benefits are enhanced, that adequate infrastructure development is implemented, and through collaborative management and monitoring, involving all relevant stakeholders.*

In reference to the central role that the GKNP plays in ensuring ecological connectivity across the TGS landscape, it is suggested that the GKNP vision will further include: *to enable the connectivity of forest ecosystems between Liberia and Côte d'Ivoire, for the protection of a large continuous complex of representative ecosystems of the Upper-Guinean forest, and of viable populations of the related wildlife, for future generations.*

The defined goals, as based on the defined vision, are:

- (a) To protect the biodiversity of the GKNP;
- (b) To sustainably manage the natural resources of the GKNP and its surroundings;
- (c) To ensure community empowerment and benefits around the GKNP;
- (d) To ensure collaborative management and monitoring of the GKNP;
- (e) To enable and sustain the connectivity of biodiversity between Côte d'Ivoire and Liberia.

The management objectives, as based on the Fishtown declaration (2017) are:

- (a) Maintain the boundary harmonization and demarcation of the GKNP;
- (b) Abolish all illegal activities in and around the GKNP;
- (c) Enhance community empowerment and benefits around the GKNP;
- (d) Develop adequate infrastructure in and around the GKNP;
- (e) Involve all relevant stakeholders in collaborative management and monitoring of the GKNP;
- (f) Strengthen the transboundary committee and collaboration mechanisms for the cross-border protection of biodiversity.

Part 1. Antecedents - includes:

- (a) An introduction on the objectives and context of the management plan, and on the methodology and participatory planning process of its elaboration;
- (b) Background on the GKNP, detailing:

- The vision, goals and management objectives of the GKNP;
- The legal, administrative and institutional context of the Park management;
- The GKNP's location and boundaries;
- Bio-physical, land cover, socio-economic and cultural description of the GKNP's landscape;
- Importance and significant resources of the GKNP and justification of its designation as a National Park;
- The TGS transboundary context;
- Stakeholders analysis;
- Threats analysis;
- SWOT analysis.

Part 2: Management Plan - is comprised of two sections:

Section 2.A. Threats Mitigation Plan - sets an action plan for park management that is aimed at mitigating the main identified threats to the ecological and social integrity of the GKNP and its surroundings. Key targets are set for the mitigation of each of the main identified threats. Feasible strategies are proposed for achieving each target, and specific activities are detailed for their implementation. Moreover, each activity specifies the key stakeholders responsible for its implementation. This section thus provides practical guidance for essential action required to achieve the main management objectives, for maintaining the GKNP's integrity. Co-management, with the engagement of all key stakeholders, and through mobilizing, formalizing and strengthening local, national, regional and international partnerships, is a centerpiece of all actions.

The main identified threats are:

- (a) Habitat loss, ecosystem and land degradation, and forest fragmentation, through: encroachment, unsustainable agriculture practices, logging, and unsustainable harvest of NTFPs;
- (b) Biodiversity loss, through; subsistence and commercial bush meat hunting, and poaching of target threatened species for the Illegal Wildlife Trade;
- (c) Negative impacts of mining, infrastructure constructions, and other land uses, that are incompatible to the conservation and sustainability objectives.

Additional threats include:

- Human-Wildlife-Conflict;
- Invasive species;
- Climate change;
- Water pollution;
- Poor waste management and sanitation;
- Fire;
- Infectious diseases.

Section 2.B. Thematic Management Programmes - complements Section 2.A, through thematic programmes that are cross-cutting across all threats and support the achievement of all of the defined management objectives, by providing key tools for enabling effective management of the GKNP.

The Thematic Management Programmes include:

- (1) Management Zoning and Land Use Plan – this Plan will be developed through a follow-up consultancy and based on a participatory planning process;
- (2) Stakeholders' engagement and co-management programme;
- (3) Sustainable livelihoods and local development programme;
- (4) Law enforcement programme;
- (5) Biomonitoring and research programme;
- (6) Infrastructure and equipment programme;
- (7) Communication, visibility, awareness and education programme;
- (8) Transboundary cooperation programme;
- (9) Capacity building programme;
- (10) Administrative management plan;
- (11) Financing plan (and budget);
- (12) A plan for an eco-tourism potential feasibility analysis.

Part 3. Monitoring and Evaluation Plan - provides guidance for the assessment of (a) progress in implementation - through performance indicators, and (b) progress in achieving the GKNP's defined management objectives, and thereby its goals and vision – through outcome indicators. The monitoring and evaluation plan enables the identifying of challenges and constraints, assimilating lessons learned, and adjusting the plan accordingly, for constantly improving capacity to achieve its defined vision, goals and management objectives, in an on-going dynamic process.

Part 4. Initial 2 Years Implementation Plan - provides a detailed plan and chronogramme for the implementation of the identified activities of the GKNP's management plan and the specific thematic management programmes, during the first two years of implementation.

Part 1: Antecedents

1.1. Introduction

1.1.1 *Objective and context of the management plan*

This Draft Management Plan is laying the basis for initiating the management of the GKNP during 5 years (2022-2026).

It has been prepared through intensive consultations with the park edge communities, local authorities (county and district), government stakeholders, civil society, and other conservation partners in Liberia following a participatory and inclusive methodology. It is based on the development of scientific studies on the biodiversity values and social context, developed prior and further to the gazettment of the park.

The development of management plans for protected areas is a requirement by the National Wildlife Conservation and Protected Area Management Law of Liberia (2016). The law mandates that such a plan shall be prepared with participatory collaboration, validated inclusively, and that its implementation needs to be enforced by the Park management.¹

This 5-years (2022-2026) management plan will initiate a process for enabling the effective day-to-day management of the GKNP, in parallel to increasing the knowledge base about the park's biodiversity values, socio-economic characteristics and threats, and to establishing a structure for participatory management.

Management planning is a process and does not end with the elaboration of a plan. Its implementation process is based on annual work planning and budgeting, as well as on monitoring and evaluation. This process will enable continuous improvement and adaptation of the management plan, to the ever-changing environmental, ecological, social and economic conditions of the region, through assimilating increased knowledge and lessons learned, with permanent stakeholders' engagement.

1.1.2 *Methodology and participatory planning process*

The elaboration of the General Management Plan for the GKNP is based on nationally and internationally accepted standards. At the national level, it follows the guidance provided in *FDA/GIZ. 2019. Technical roadmap for the development of a General Management Plan and Livelihood Strategy for the Grebo-Krahn National Park in Liberia* and in the Liberia Protected Area Framework legal document. At the international level, it follows IUCN Guidelines and follows other documents and examples that present best-practice international standards for developing Protected Areas management plans². Moreover, the Management Plan for the GKNP is

¹ Finley Y. Karngar. 2019. Legal and institutional framework of the protected area: Legal framework. The GKNP Gazettment package and Annexes

² E.g.,

- IUCN/PACO. 2012. Elaboration et mise en oeuvre des plans de gestion en Afrique de l'Ouest et du centre. Ouagadougou, BF

- Thomas, L. and J. Middleton, 2003. Guidelines for Management Planning of Protected Areas. IUCN Gland, Switzerland and Cambridge, UK

specifically designed to provide simple, adequate, practical and effective action guidelines for achieving the park's objectives and for mitigating the main identified threats.

The planning process and the elaboration of the Management Plan for the GKNP uses a participatory approach. The plan is developed in close collaboration with the FDA, with the support of the TGS-FL Ambero/GIZ Project, and assistance of the Ivoirian Office of Parks and Reserves (OIPR), and through consultation with local communities, local authorities, technical and financial partners operating in the landscape and other relevant stakeholders at the national, regional (county and district) and local levels. The management plan was elaborated through taking into account all key stakeholders' voices and considerations. Gender, social, cultural and language considerations were also considered.

This draft management plan is based on the existing knowledge base of the GKNP, including:

- (a) Review of existing bibliography and documentation, including the Park's gazettement package, the baseline studies, and additional reports (Annex I);
- (b) Results of a preliminary evaluation, including a field visit to the GKNP and its surroundings, interviews with stakeholders, community meetings, and a participatory diagnosis workshop, realized from 20th October to 15th November 2019;
- (c) Results of a participatory consultations mission, realized by a team of national consultants between the 6th January and the 15th February 2020 (Full report is attached in Annex I)³.
- (d) Additional available information on the TGS transboundary context.

The GKNP's vision, goals and key management objectives, were defined through the Fishtown Conference (2017) and the concluding Fishtown Declaration. The wording of the vision and goals was further refined, through the participatory diagnosis workshop, held in October 2019, as part of the process for the elaboration of this draft management plan.

Based on the agreed vision, goals and management objectives, and on the main threats identified through the baseline studies, the management plan provides feasible targets for mitigating these threats and for achieving the defined management objectives. Specific strategies are developed to achieve each target. Accordingly, applicable and

- Casson, S.A., Martin V.G., Watson, A., Stringer, A., Kormos, C.F. (eds.). Locke, H., Ghosh, S., Carver, S., McDonald, T., Sloan, S.S., Merculieff, I., Hendee, J., Dawson, C., Moore, S., Newsome, D., McCool, S., Semler, R., Martin, S., Dvorak, R., Armatas, C., Swain, R., Barr, B., Krause, D., Whittington-Evans, N., Gilbert, T., Hamilton, L., Holtrop, J., Tricker, J., Landres, P., Mejicano, Gilbert, T., Mackey, B., Aykroyd, T., Zimmerman, B., Thomas, J. 2016. Wilderness Protected Areas: Management guidelines for IUCN Category 1b protected areas. Gland, Switzerland: IUCN

- Ron, T. 2019. Management Plan for the Maiombe National Park, Angola. Ministry of Environment of Angola (MINAMB). GEF-UNDP-funded Project

³ Bangura, K. 2020. Grebo-Krahn Management Plan Consultations Inception Report

effective activities were selected for implementing the identified strategies. Moreover, complementary specific management thematic programmes, that are cross-cutting for all threats and objectives were further developed.

The draft management plan includes a monitoring and evaluation plan for the systematic evaluation of its implementation and for achieving the objectives and goals. This monitoring plan is based on defined performance indicators and outcome indicators. The document also includes a 2-years initial implementation plan with a chronogramme.

The Draft Management Plan for the GKNP will be submitted for inputs and endorsement by the Liberian Forestry Development Authority (FDA), and relevant local authorities, communities, stakeholders and partners. All inputs will be incorporated into the revised draft management plan, as relevant. The revised draft will be presented to stakeholders in a validation workshop, for final revision. The final management plan will be used as a guiding document to FDA and partners for the GKNP's management, and shall be integrated into the transboundary conservation and management context of the Tai-Grebo Krahn-Sapo (TGS) Landscape.

1.2. Background

1.2.1. Vision, goals and management objectives of the GKNP

Vision

The GKNP's vision is based on the Fishtown Declaration which was adopted after the Fishtown Conference (December 2017) of stakeholders, with wording revised through the Participatory Diagnosis Workshop held in October 2019 and validated in consultation with local stakeholders in February 2020.

The defined vision of the GKNP is:

To protect the biodiversity and cultural values of the park and to sustainably manage its natural resources, for current and future generations, by ensuring that the agreed boundary harmonization and demarcation is maintained, that illegal activities are abolished, that community empowerment and benefits are enhanced, that adequate infrastructure development is implemented, and through collaborative management and monitoring, involving all relevant stakeholders.

In reference to the central role that the GKNP plays in ensuring ecological connectivity across the TGS landscape, it is suggested that the GKNP vision will further include: *to enable the connectivity of forest ecosystems between Liberia and Côte d'Ivoire, for the protection of a large continuous complex of representative ecosystems of the Upper-Guinean forest, and of viable populations of the related wildlife, for future generations.*

Goals

The goals specified here, are derived directly from the agreed vision:

- To protect the biodiversity of the GKNP;
- To protect the cultural values of the GKNP;
- To sustainably manage the natural resources of the GKNP and its surroundings;
- To ensure community empowerment and benefits around the GKNP;
- To ensure collaborative management and monitoring of the GKNP.
- To enable and sustain the connectivity of biodiversity between Côte d'Ivoire and Liberia

Management objectives:

The management objectives were defined in the Fishtown Declaration, following the Fishtown Conference of stakeholders (December 2017), and re-approved with minor wording edits in the Participatory Diagnosis Workshop (October 2019).

- Maintain the boundary harmonization and demarcation of the GKNP;
- Abolish all illegal activities in and around the GKNP;
- Enhance community empowerment and benefits around the GKNP;
- Develop adequate infrastructure in and around the GKNP;
- Involve all relevant stakeholders in collaborative management and monitoring of the GKNP
- Strengthen the Transboundary Committee and collaboration mechanisms for the cross-border protection of biodiversity.

1.2.2. Legal, administrative and institutional context of the GKNP management⁴

National Category: National Park

IUCN Category: II (National Park)

Legal and policy framework

The Grebo-Krahn National Park was gazetted on 22 August 2017, over a total of 96,149.89 hectares, through “an Act establishing the Grebo Forest as Grebo-Krahn

⁴ For further information on the legal, policy and governance framework of Protected Areas in Liberia, and specifically of the GKNP, see, e.g.:

- Dowd, D., S. Furnell and J. T. Woods, Wild Chimpanzee Foundation (WCF) 2017. Gazettement package designating Grebo National Forest as a National Park. Forest Development Authority (FDA), Liberia.
- Finley Y. Karngar. 2019. Legal and institutional framework of the protected area: Legal framework. The GKNP Gazettement package and Annexes.
- Forest Development Authority (FDA), Liberia. 2016. Sapo National Park – Draft Management Plan

National Park”, approved on 9 October 2017 and published on 11 October 2017. It was formally launched on April 2018 regionally (in Zwedru), and nationally (in Monrovia).

The GKNP’s gazettelement was based on the Park’s outstanding globally recognized biodiversity values, as well as on its transboundary importance in the TGS Forest Complex’ context. It was preceded by an extensive process of consultations and detailed baselines studies, led by the FDA. The gazettelement package, with the baseline study reports, is annexed to this management plan for easy reference (Annex I: Bibliography and documentation).

The establishment of the GKNP is in fulfilment of chapter 9, section 9.1, of the 2006 *National Forestry Reform Law of Liberia*, which required the FDA to “establish Protected Forest Area Network, together with conservation corridors and incorporating existing National Forests to cover at least 30% of the existing forested area of Liberia”.

Furthermore, the 2016 *Act adopting the National Wildlife Conservation and Protected Area Management Law of Liberia*, mandates the FDA to prepare and publish, as soon as possible after the establishment of a Protected Area, a general management plan, in accordance with internationally accepted standards. This Act provides detailed policy guidance for wildlife conservation and protected area management. Section 5.9. provides detailed guidance for the elaboration of Management Plans for Conservation Areas. Specifically, line 5.9.1a made it mandatory for the FDA to develop management plans in collaboration with local communities.

Section 3 of this Act determines that the “Forestry Development Authority established by Act of the Legislature in 1976, has the mandate to manage Liberia’s forest estate, and shall serve as the implementing agency for the purposes of this Act”, and that “the Managing Director shall act on behalf of the Government of Liberia in the execution of the Authority’s mandate in respect of this Act”.

Other relevant legislation includes: *The Constitution of the Republic of Liberia* (1986), providing for public participation in the protection and management of the environment and natural resources of Liberia; *The National Forestry Policy and Implementation Strategy* (2007), adopting the ‘3Cs’ concept to promote integrated and balanced forest management practices for Conservation, Commercial and Community uses of the country’s forests; *The Community Rights Law with respect to forestlands* (2009), for the full and interactive participation of local communities in the sustainable management of the country’s forests, granting them user and management rights, and provides for building their capacity for sustainable forest management; *The Environmental Protection and Management Act and the Environmental Protection Agency Act* (2003), which mandates The National Environmental Commission of Liberia (NECOLIB) to establish an overall national environmental policy framework.

The management of the GKNP, is also related to several international conventions and environmental multilateral and bilateral agreements, of which Liberia is a signatory party. Among these, the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the

Convention on the Conservation of Migratory Species of wild animals (CMS), the International Plant Protection Convention (IPPC), and the Ramsar Convention on Wetlands.

The GKNP management plan engages the objectives of several core national environmental and development strategies. The establishment of a more effective system of protected areas management has been a consistent and central theme in the Government of Liberia's (GoL) internal efforts and multilateral environmental commitments during the recent decades.

For example, Strategic Objective number 2, in the National Biodiversity Strategic Action Plan (NBSAP), is to “establish and properly manage all protected areas in representative ecosystems across the country.” Similarly, the National Adaptation Plan of Action (NAPA), the country's core planning document for coping with climate change, identifies improving the “management and protection of forest reserves” as a Priority Project. In the Country's National Determined Contribution (NDC) of the Paris Agreement, Liberia has pledged its forests as carbon sinks for global mitigation of greenhouse gases. As stressed in the NAPA, the North Western and South Eastern landscapes are two of the country's flagship ecological areas containing a number of rare or vulnerable species and ecosystems, and their conservation is a NAPA and NDC Priority Project. It is further emphasized in the NBSAP that biodiversity conservation requires not only the establishment of protected areas, but also active management specifically tailored to the needs of endangered species and habitats. Unfortunately, the country's existing biodiversity knowledge base is weak. The NBSAP therefore, identifies the development of knowledge resources, such as a Biodiversity Database System, as a Priority Project. Recognizing the importance of public support to conservation, the NBSAP also prioritizes improvement of the “understanding of biodiversity through research, public education and awareness” as a key Strategic Objective.

Institutional context

The government agency responsible for the GKNP management is the Forestry Development Authority (FDA), which is responsible for the management of all forests and Protected Areas in Liberia.

Current administrative structure of the GKNP, at the time of the realization of a fact-finding mission in preparation of this draft management plan (October 2019): 9 permanent staff in the Park, working on full-time basis, including - 1 Chief Park Warden, 3 Zone Wardens, 1 Biologist, 1 Community Engagement Ranger and 3 Law Enforcement Rangers. The Chief Park Warden reports to the Regional Forester of Region 4, heading the FDA's Regional Office in Zwedru, and in coordination with the Forest Conservation Department in the FDA's Head Office in Monrovia, which is responsible for biodiversity conservation in Liberia, including the oversight of all Protected Areas management.

1.2.3. Location and boundaries of the GKNP

The total gazetted area of the GKNP is 96,149.89 hectares (961.5 Km²). It is located in the heart of the Tai-Grebo-Krahn-Sapo Transboundary Forest Complex (see also Chapter 1.2.7. and map).

The GKNP is located in 2 Counties: Grand Gedeh and River Gee, along the border with Côte d'Ivoire and 3 Administrative Districts: Konobo and Glio-Twabo Administrative Districts (both are part of the Konobo statutory district) in the North (Grand Gedeh County), and Glaro Administrative District in the South (River Gee County).

The GKNP is comprised of two distinct blocks geographically separated. The northern block of the Grebo-Krahn National Park, covering an area of 85,969.11 hectares of forest, follows the boundary lines of the original Grebo National Forest in the north with several adjustments done in favour of the communities, then follows the Dugbe River down to the south and cuts across to the Cavalla River in the East, North of the Glaro District. The Cavalla River forms the eastern boundary up to the North. The southern block of the Park, covering an area of 10,189.78 hectares of forest, is located in the Glaro District and was also a part of the Grebo National Forest (which had always been formed of two distinct blocks of forest).⁵

The GKNP's boundaries were set, and the Park's gazette validated, following an extensive consultation process with stakeholders, and specifically with the local communities, led by the FDA, with adjustment of boundaries made in favor of local communities. Most of the Park area overlaps with the former Grebo National Forest (established in 1957), including a partial overlap with the previous area of the FMC-F forest concession.⁶

According to the Act establishing the Grebo-Krahn National Park (2017), it lies within latitudes 5°10'0"N and 5°60'0"N and longitudes 7°20'0"W and 7°50'0"W, between the Cavalla and Dugbe Rivers, and divided into two separate area blocks, the Northern area, in Konobo and Glio-Twabo Districts and the Southern area, in Glaro District.

The park is connected with the Cavalla forest in Côte d'Ivoire in the North; with the proposed partial reserve of the Saro River Corridor to the East, and with the FMC-F classified forest to the West; and stretches to the West toward the North East of the

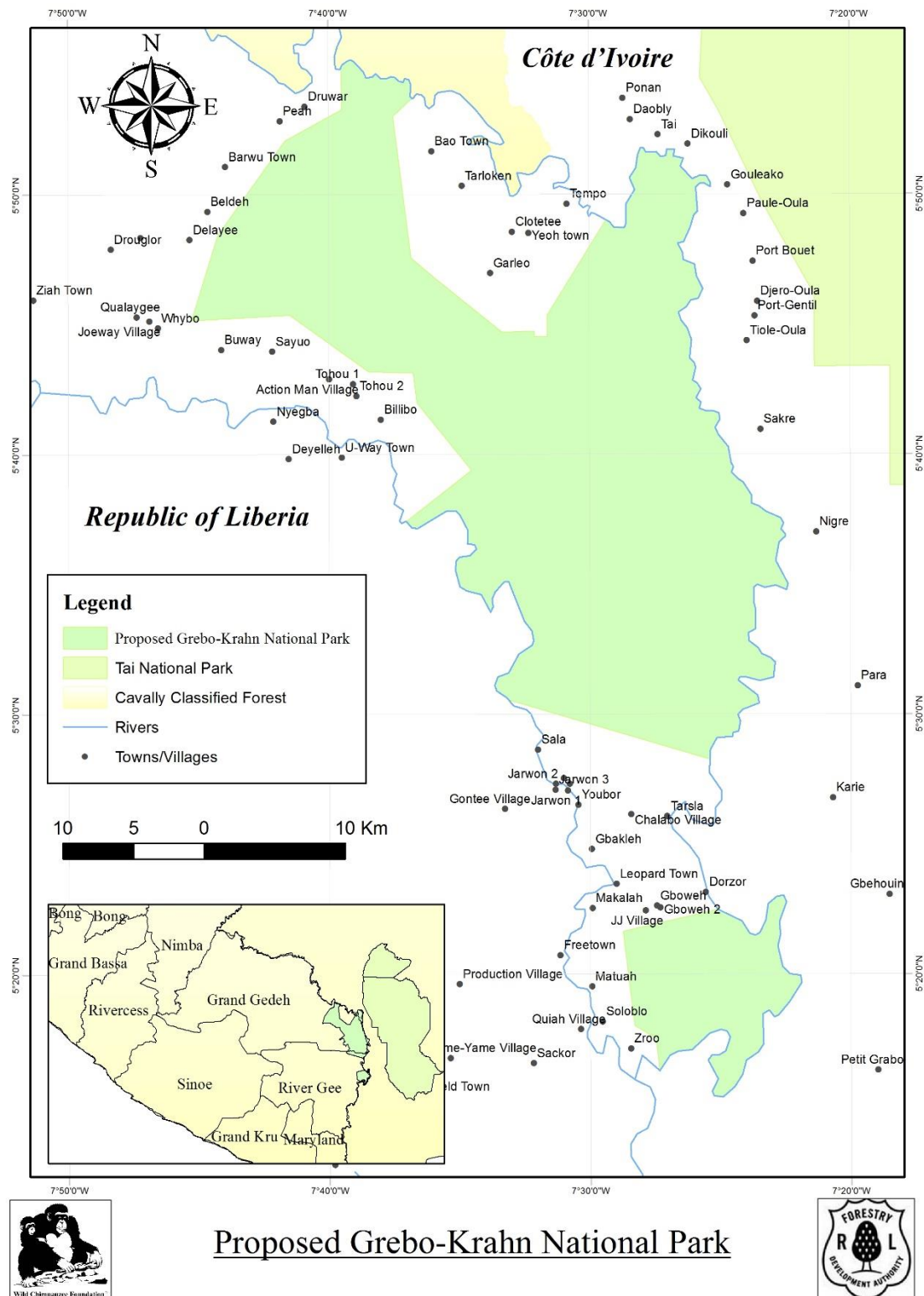
⁵ Dowd, D., S. Furnell and J. T. Woods, Wild Chimpanzee Foundation (WCF) 2017. Gazettment package designating Grebo National Forest as a National Park. Forest Development Authority (FDA), Liberia.

⁶ See:

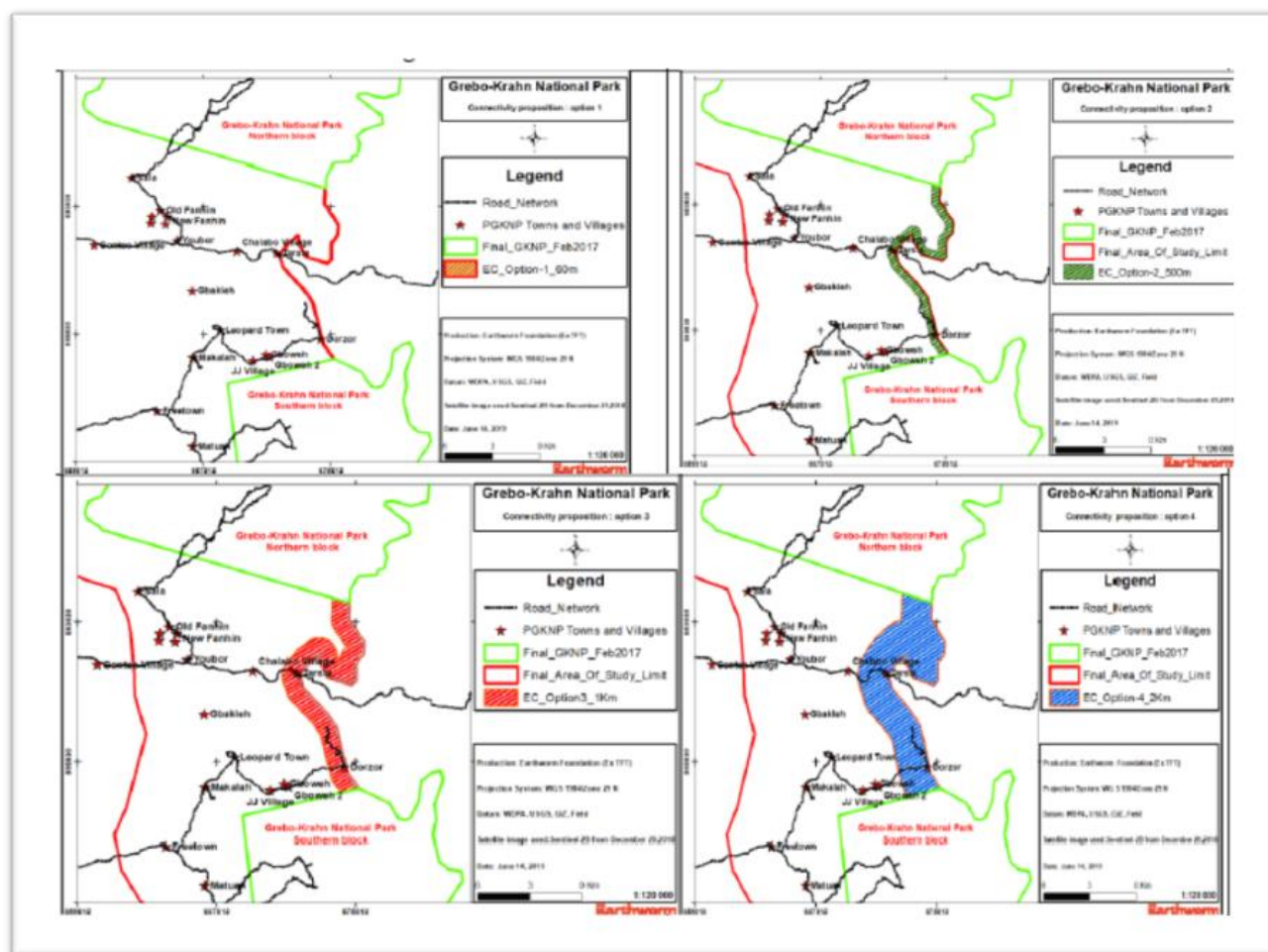
- FDA and WCF, 2015. Report from Community Consultations in Grand Gedeh and River Gee on: Validation and Approval of the Proposed Grebo Forest National Park
- Quemine, B., S. Furnell, D. Dowd, and Z. G. B. I. Berenger, 2016. Report from the final community consultations on: Validation of the proposed boundary of the Proposed Grebo-Krahn National Park, WCF and FDA.
- FDA and WCF, 2015. Report from Regional Level Consultations for Grand Gedeh and River Gee Counties: Validation and Approval of the Proposed Grebo Forest National Park.
- FDA and WCF, 2015. Report on Regional Validation of the proposed boundary of the Proposed Grebo Forest National Park.
- Furnell, S., 2016. The Final regional consultation on: Validation of the creation of the Proposed Grebo-Krahn National Park. FDA and WCF.

Sapo National Park. The GKNP is therefore an essential element of ecological connectivity in the TGS region. (See Chapter 1.2.7. and map).

Map 1: The GKNP (Source: Dowd, D., S. Furnell and J. T. Woods, Wild Chimpanzee Foundation (WCF) 2017. Gazettment package designating Grebo National Forest as a National Park. Forest Development Authority (FDA), Liberia)



Map 1.A. Connectivity Options (Source: Earthworm)



1.2.4. Bio-physical description, biodiversity and land cover of the GKNP

Several baseline studies have been elaborated by the FDA and partners on key aspects that are essential for the development of the management plan for the GKNP. Key baseline study reports are annexed to this management plan (Annex I: Bibliography and documentation).

General description

The GKNP is a wet evergreen forest, situated in the southeast of Liberia, along the border with Côte d'Ivoire (see detailed location in Chapter 1.2.3.). Annual precipitation is approximately 2500 mm and the annual mean temperature is 25.7°C. The GKNP area is comprised mostly of secondary forest at different stages, including both degraded and mature forests, and with nearly half of the Park area covered by closed dense forest. Some medium-sized sandy streams with a few rocks occur, as well as large ponds.⁷

Rapid natural resources depletion and competing land uses have cut large swaths through Liberia's South Eastern forest landscapes, undermining vital environmental

⁷ Hoke, P., R. Demey and A. Peal (eds.). 2007. A rapid biological assessment of North Lorma, Gola and Grebo National Forests, Liberia. RAP Bulletin of Biological Assessment 44. Conservation International, Arlington, VA, USA.

services such as maintenance of biodiversity, climate stability, carbon storage, integrity of land, food and cash crops production and delivery of fresh and unpolluted water.

Biodiversity

As most of Liberia, the GKNP is part of the Upper Guinea forest block, which forms the western part of the West African Guinean Forests hotspot, one of the 34 biologically richest and most endangered terrestrial ecoregions in the world. Biodiversity baseline studies conducted in the GKNP confirm that the Park's area contains impressive pristine ecosystems of both secondary and mature forest, water courses and mountains. The forests are characteristic to tropical forest of the Upper Guinea Forest Ecosystem, with at least 220 plant species and at least 300 fauna species, including numerous threatened and endemic species. Both the Northern and Southern blocks of the GKNP were identified as ecologically important for conservation.⁸

A population census of West African chimpanzees (*Pan troglodytes verus*) in the GKNP, conducted by the Wild Chimpanzee Foundation (WCF), in 2015, estimated 313 individuals (similar to previous estimates). Evidence of the presence of the following large and medium-sized mammal species was observed during this survey: Pygmy hippopotamus (*Choeropsis liberiensis*), Forest elephant (*Loxodonta cyclotis*), Diana monkey (*Cercopithecus diana*), Mona monkey (*Cercopithecus mona*), Sooty mangabey (*Cercocebus atys*), Western black-and-white Colobus (*Colobus polykomos*), Red Colobus (*Piliocolobus badius*), Lesser Spot-nosed Monkey (*Cercopithecus petaurista*), Olive Colobus (*Procolobus verus*), Red river hog (*Potamochoerus porcus*), Giant forest hog (*Hylochoerus meinertzhageni*), Buffalo (*Syncerus caffer nanus*), Water chevrotain (*Hyemoschus aquaticus*), Zebra duiker (*Cephalophus zebra*), Maxwell's duiker (*Philantomba maxwellii*), Black-backed duiker (*Cephalophus dorsalis*), Black duiker (*Cephalophus niger*), Ogilby's duiker (*Cephalophus ogilbyi*), Jentink's duiker (*Cephalophus jentinki*), Yellow-backed duiker (*Cephalophus silvicultor*), Royal antelope (*Neotragus pygmaeus*), Bongo (*Tragelaphus eurycerus*), Bushbuck (*Tragelaphus scriptus*), Tree hyrax (*Dendrohyrax dorsalis*), Giant pangolin (*Smutsia gigantea*), Tree pangolin (*Phataginus tricuspis*), African palm Civet (*Nandinia binotata*), African civet (*Civettictis civetta*), Liberian mongoose (*Liberiictis kuhni*), Leopard (*Panthera pardus*). Relative abundance of endangered and vulnerable species was analyzed and mapped in this study. The study has revealed the biodiversity

⁸ See:

- Dowd, D., S. Furnell and J. T. Woods, Wild Chimpanzee Foundation (WCF) 2017. Gazettment package designating Grebo National Forest as a National Park. Forest Development Authority (FDA), Liberia
- AHT Group AG. 2017. Mission Report: Identification of criteria and a strategy for the establishment of an ecological corridor between the Grebo and Sapo Protected areas. KfW-funded. Forest Development Authority (FDA), Liberia.
- Kouakou, Y.C., V. Vergnes, D. Dowd, E. Normand, and C. Boesch, 2012. Report on the large mammal survey and monitoring of chimpanzees in Grebo national forest, Liberia. WCF and FDA.

importance of both the Southern and Northern blocks of the Park, as well as in the connecting and surrounding areas, and in particular the FMC-F forest concession area.⁹

A Conservation International (CI) 2011 survey in the wider area of the North Lorna, Gola and Grebo forests recorded 22 species in 5 families of bats. The seven species of fruit bats captured during this study represent two-thirds of the fruit bat species known to occur in Liberia. 157 bird species were recorded in the Grebo Forest, of which 10 are of global conservation concern. Among these, five are classified as Vulnerable (White-breasted Guineafowl, Western Wattled Cuckoo-shrike, Green-tailed Bristlebill, Yellowbearded Greenbul and Nimba Flycatcher). The African grey parrots are highly threatened by illegal wildlife trade, and were included in 2016 in CITES Appendix I. Nine of the 15 restricted-range species that make up the Upper Guinea forests Endemic Bird Area, were found in the Grebo forest area, that is a most important proportion of the Upper Guinea endemics. Of the 184 Guinea-Congo forests biome bird species recorded in Liberia, 114 or 62%, were recorded in Grebo. In addition, a number of rare and poorly known species were observed, including Spot-breasted Ibis. All Upper Guinea forest amphibians depend on lotic forest habitats as well as some species typical of lentic forest habitats, were recorded in the wider area of the North Lorna, Gola and Grebo forests. Five reptile species (African Dwarf Crocodile, Rock Python, Monitor Lizard, *Varanus ornatus*, and two tortoises - *Kinixys erosa* and *K. homeana*) as well as the toad *Bufo superciliaris*, recorded in this area, are threatened and protected by international law. Of the 220 plant species identified, 37 (17%) are endemic to Upper Guinea. The largest families of flowering plants are the Rubiaceae and the Leguminosae. Sixteen species of ‘ferns and allies’ were also identified. 70 of the 520 flora and fauna species recorded in Grebo forest, are species endemic to the Upper Guinea ecosystems, and 41 are species of conservation concern.¹⁰

Land cover

A Desktop remote sensing processing of satellite images, combined with field-based data collection and stakeholders’ interviews, showed a moderate level of degradation within the Park, and high level of degradation in the area surrounding it, including the area linking the northern and southern blocks. The analysis revealed more accurate data.¹¹

Of a total area of 174,270 ha analyzed, in and around the GKNP, 81% is covered by mature forest and partially degraded ecosystems, mainly within the Park area, including 36% of closed dense forest, 36% open dense forest, and 9% degraded forest with open

⁹ Furnell, S., D. Dowd, C. Tweh, I.B. Zoro Gone Bi, V. Vergnes, E. Normand, and C. Boesch, 2015. Biomonitoring in the Proposed Grebo-Krahn National Park: Report on phase 2 in the proposed Grebo-Krahn National Park, WCF and FDA.

¹⁰ Hoke, P., R. Demey and A. Peal (eds.). 2007. A rapid biological assessment of North Lorna, Gola and Grebo National Forests, Liberia. RAP Bulletin of Biological Assessment 44. Conservation International, Arlington, VA, USA.

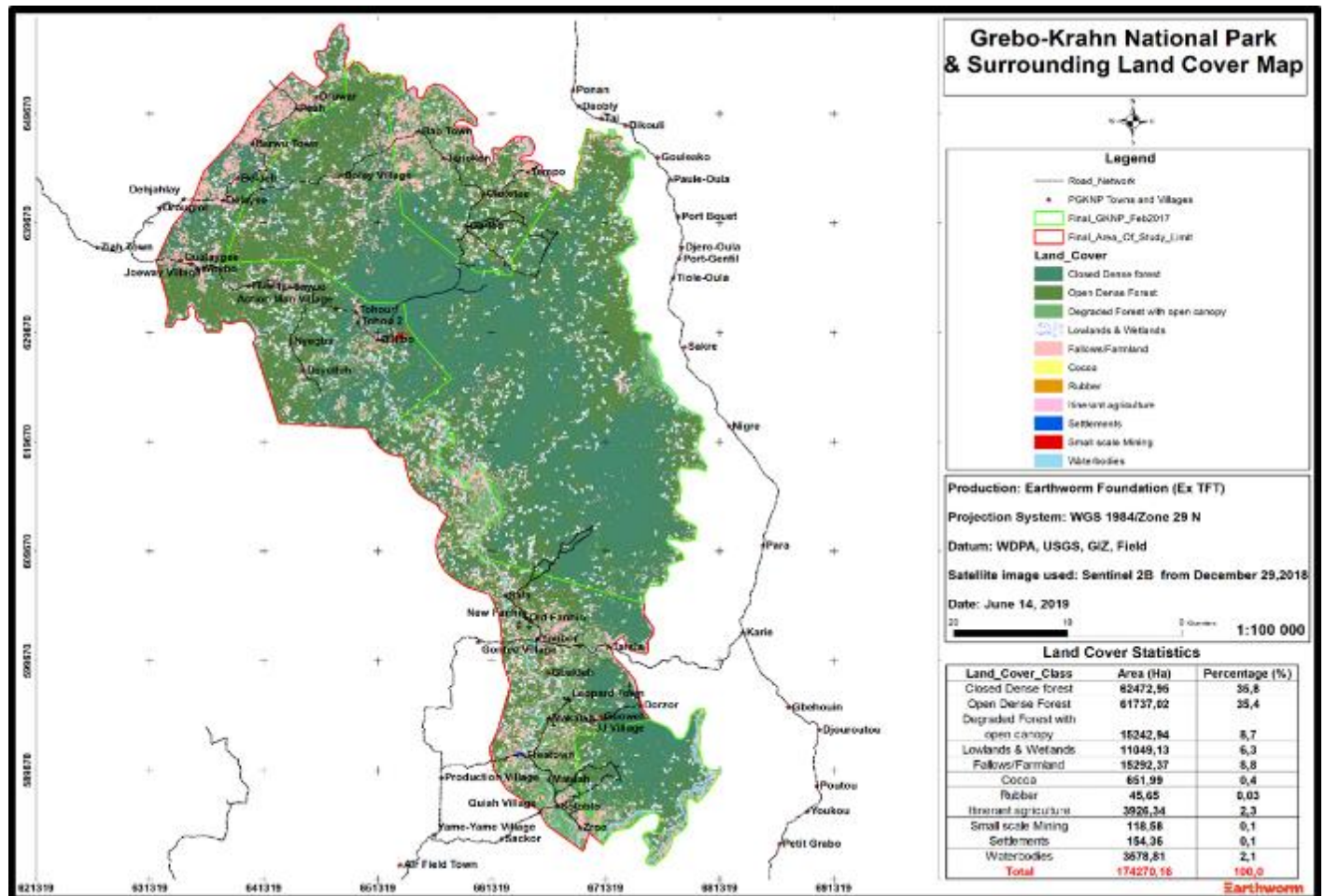
¹¹ Earthworm, 2019. The satellite images interpretation support mission for Land Cover Mapping in the New Grebo-Krahn National Park and its periphery. GIZ.

canopy. 6% is covered by lowland and wetlands, and 2% by rivers and other waterbodies. Other land cover and land uses in the study area, mostly around the Park and between the two Park blocks, include 9% covered by crop farmlands and fallows and young secondary forest, 2% by itinerant agriculture and cocoa farming. Artisanal mining and settlements cover a rather negligible area (around only 0.2% together), but both impact a much wider area.

Within the gazette area of the GKNP, 48.7% is covered by closed and mature dense forest, 34.8% by dense forest with partially open canopy, 5.6% by marshy areas - lowlands and wetlands, 3.9% by degraded forest and 5.2% is still cultivated, mainly along the Cavalla and Dugbe Rivers, in the Park's margins. 1.8% of non-forest areas consist mainly of the waters of the Cavalla River and the Dugbe River, as well as a small area of cocoa plantations.

Comparison to land cover data of 2013 reveals forest recovery and a decrease in forest cover degradation within the Park perimeter, mainly due to the recovery of previously cultivated land into degraded forest. However, increased degradation of natural habitats was noted in the Park's surroundings, as related mostly to increased conversion of forest into cultivated area.

Map 2: Land cover of the GKNP and surroundings (Source: Earthworm, 2019. The satellite images interpretation support mission for Land Cover Mapping in the New Grebo-Krahn National Park and its periphery)



1.2.5. Social, cultural, and economic characteristics of the GKNP surroundings

Local communities – general characteristics and governance structure

According to a recent livelihoods baseline study, there are currently about 39 settlements (towns and villages), with an estimated population of more than 25,000 people, residing around the GKNP gazette area. This population is comprised of people from nine clans (or clan communities) of two ethnic groups, Glaros¹² and Krahn. Krahn occupy the North (Grand Gedeh) and Glaros occupy the South (River Gee). These clans are divided into five Chiefdoms, three corresponding to the Krahn ethnic group (Glio, Twabo and Gbarwu) and two to the Glaro ethnic group (Plubia and Quilabo). This population depends mainly on the natural resources of the park for subsistence livelihood and income, including wildlife poaching, illegal mining, illegal

¹² Officially, Glaro is not considered an ethnic group in Liberia, but rather integrated in the Grebo group, although they have linguistic specificities and recognize themselves as distinct.

logging, harvesting of non-timber forest products (NTFPs), farming, and trading (mainly in the larger settlements).¹³

It was noted that while the majority of people rely on farming, plant harvest and hunting for income, many believe in the importance of biodiversity conservation. WCF surveys reported that only 35% of people supported the national park in 2013, but over 72% were fully in favor of creating the national park, in 2017.¹⁴

Table 1: List of villages around Grebo-Krahn National Park and estimated population size, 2017. (Source: Dowd, D., S. Furnell and J. T. Woods, Wild Chimpanzee Foundation (WCF) 2017. Gazettment package designating Grebo National Forest as a National Park. Forest Development Authority (FDA), Liberia)

County	Name	N° Inhabitants	County	Name	N° Inhabitants
Grand Gedeh	Action man village	3	River Gee	Old Fanhin	1
	Bao town	790		Chilarbo village	41
	Barwu Town	158		Freetown	2800
	Beldeh village	7		Gboweh	13
	Bilibo	2800		Gontee village	6
	Boley village	25		J. J village	18
	Buway	350		Jarwon 1	1
	Clotetee	250		Jarwon 2	1
	Dehjahlay	50		Jarwon 3	6
	Delayee	100		Leopard Town	319
	Deyelleh	560		Makalah	49
	Drougbor	117		Matuah	7
	Druwar	275		New Fanhin	4
	Garleo	600		Quiah village	40
	Joeway village	25		Sackor	175
	Peah	200		Sala	75
	Qualaygee	56		Soloblo	175
	Sayuo	159		Tasla	145
	Tarloken	1007		Yama- Yame village	10
	Tempo	400		Youbor	912
	Tohou 1	2		Zroo	100
	Tohou 2	6			
	U- Way Town	4			
	Whybo	125			
	Yeoh	300			
	Ziah Town	7086			

The governance structure of Grand Gedeh and River Gee Counties, at the traditional level, bottom-up, is: Quarter chief and school Principal at the community level, Town Chief at the sectional level (however, in stakeholders' consultations, communities are further represented at the town/village level, in addition to the Town Chiefs, by Chief Elders, Chairladies and Youth Presidents), Clan Chief, Paramount Chief at the Chiefdom level; at the Governmental administrative level: District Commissioner and County Superintendent. In Grand Gedeh County, there is a statutory district (Konobo

¹³Gotomo, S., R. Sambolah, F.Y. Karngar and S.O. Garcia, 2020. Grebo-Krahn National Park – Baseline study report. Ambero-GIZ and FDA, Liberia.

¹⁴ Dowd, D., S. Furnell and J. T. Woods, Wild Chimpanzee Foundation (WCF) 2017. Gazettment package designating Grebo National Forest as a National Park. Forest Development Authority (FDA), Liberia

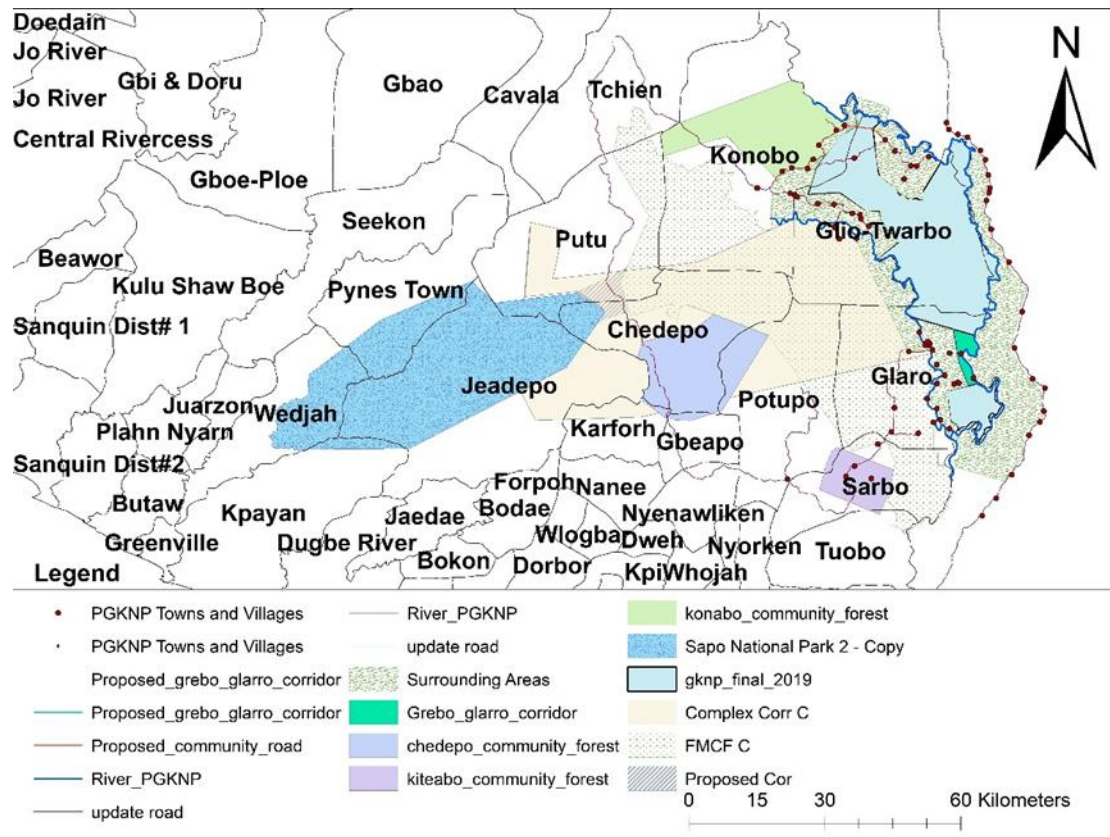
Administrative District) headed by a District Superintendent, to whom all the District commissioners report.¹⁵

Table 2: Villages, Chiefdoms and Clans, around Grebo-Krahn National Park (Source: LISUPED, 2019)

No.	Name of town/settlement	Chiefdom	Clan	Administrative District	County
I.1	Drouglor	Gbardru	Lower Gbardru	Konobo	Grand Gedeh
I.2	Dejahlay				
I.3	Delayee				
I.4	Beldeh village				
I.5	Barwu				
I.6	Peah				
I.7	Druwar				
I.8	Gbarwu				
II.1	Bao	Glio	Gbowonbo	Glio - Twarbo	Grand Gedeh
II.2	Tarloken		Chattan		
II.3	Clotetee				
II.4	Garleo				
II.5	Yeoh				
II.6	Tempo				
III.1	Glargee/ Jowar	Twarbo	Neinabo	Glio - Twarbo	Grand Gedeh
III.2	Whybo				
III.3	Buway				
III.4	Sayuo				
III.5	Gedekar Village		Duogwebo		
III.6	Tohou-1 /Action man village				
III.7	Billibo				
III.8	Nyangba				
III.9	Dehjallah				
IV.1	Free Town	Plubia	Gballa	Glaro	River Gee
IV.2	Zroo				
IV.3	Solobo				
IV.4	Leopard				
IV.5	Matuah				
IV.6	Sikor		Sakor		
IV.7	Dorzor				
IV.8	Gboweh				
IV.9	Makala				
V.1	Youbor	Quirobo	Youbor	Glarrlo	River Gee
V.2	Tarsla				
V.3	Gbokleh				
V.4	Chalabo		Salla		
V.5	Sala				
V.6	Janwon				
V.7	New Fanhin				

¹⁵ Ambero-GIZ, 2019. Grebo-Krahn livelihood assessment report

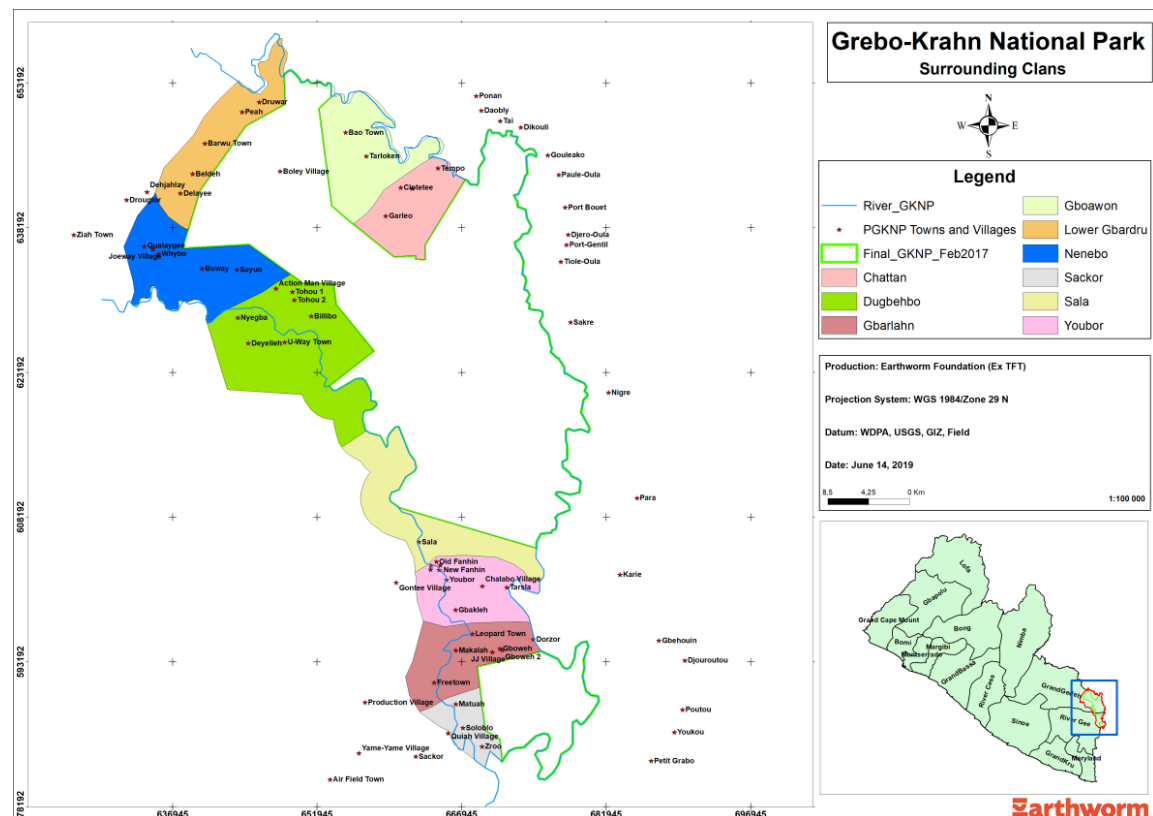
Map 3: Map of the GKNP and its surrounding community forests, peripheral roads, rivers and forest concession (Source: Bangura, K. A. 2020).



Map 3.A.: The GKNP Edge Community Villages (Source: WCF, 2017)



Map 3.B.: The GKNP Edge Communities – surrounding clans (Source: Earthworm, 2019)



Cultural aspects

Krahn people (Grand-Gedeh):

The indigenous people of the Krahn tribe, an ethnic group that exists in Liberia and Côte d'Ivoire, form the communities that are adjacent to the section of the Grebo-Krahn National Park located in Konobo and Glio-Twarbo Administrative Districts in Grand Gedeh County, Liberia. Liberia's Krahn people were originally hunters, NTFPs gatherers, fishers and to a lesser extent, household subsistence farmers, traditionally focusing on rice and cassava production.

The social structure of the Krahn communities adjacent to the GKNP is based on a combination of formal and non-formal education practices through which cultural values and the social order is transmitted. Non-formal education is provided by the Poro and Sande secret societies wherein children and youth learn the social norms and customary practices of the Krahn tribe, as well as life and survival skills. The Krahn communities adjacent to the GKNP are predominantly subsistence farmers of food crops, hunters and collectors of forest products. Currently, a growing number of farming households are diversifying their livelihoods toward small cocoa farms, with a medium-long term outlook, to compensate a reduction in the access to harvesting and trading in timber and non-timber forest products from the forests that the GKNP occupies now.

The Krahn communities near the GKNP keep reserved forests that they use as sanctum sanctorum for initiating children and youth into the Poro and Sande secret societies and

training them to be productive citizen. They also have artifacts that they use to pursue creative practices such as music, dancing, and to perform rituals.

Glaro people (River Gee):

The section of the GKNP that is located in the Plubia and Quirobo chiefdoms in Glaro Administrative District, in River Gee County, is inhabited by indigenous Glaro people, a subdivision of the Grebo ethnic group which, nevertheless, share many similarities with the Krahn people, and especially the Twarbo group. Grebo means "leaping monkey people," believed to be a reference to their flight from a former homeland near the Sahara. Traditionally, they are more fishers and hunters than farmers. The culture of the Grebo, a little-known ethnic group inhabiting the coastal region of eastern Liberia and the bordering forestlands, was shaped to a considerable degree by their neighbors to the north, the Krahn and Dan. For example, like Krahn people, Grebo people have traditional bush schools (Poro for males and Sande for females). These traditional education practices and their associated societies continue to be part of their culture. They are ruled by a Chief known as "bodio" who lives in near total isolation, and also assume the function of High Priest¹⁶.

The Grebo communities near the GKNP sculpt several types of typical wooden masks. The masks are used in rituals reserved for initiations and at the time of festive occasions, when the whole population is able to see them. War masks designed primarily to terrify, were used during battles, in the dances beforehand, and at the funerals of warriors. These masks are worn by dancers during ceremonies to mediate or appease the spirits. During the ceremonies, white clay is applied to participants and dancers to denote the "ku" or spirit.¹⁷

Gender aspects

Community respondents of the Ambero-GIZ livelihoods survey (2019)¹² report that while traditionally men control access to the forest and natural resources, both men and women can access and share the benefits of forests, farmlands, non-timber forest products, and the reserved forests. The men have exclusive access to and control over paid workforce, but women equally benefit from it. Only the men have access and control over mining, rivers, wildlife hunting, and timber, but both men and women equally share the benefits of these natural resources. Daily decisions of the households are made by men, while most decisions concerning livelihood, finance and family issues are shared between men and women.

Livelihoods, economic activities and standard of living

Main subsistence livelihoods of communities around the GKNP are comprised of household food crop farming (mainly rice and cassava), subsistence bushmeat poaching, wild plant and NTFP harvest (mainly fruit, firewood and herbs), fishing

¹⁶ Baquart, Jean-Baptiste. The Tribal Arts of Africa. New York: Thames and Hudson Inc. 1998. In Print.

¹⁷ Ambero-GIZ, 2019. Grebo-Krahn livelihood assessment report

(mainly *Tilapia* and catfish), limited small scale livestock husbandry (mainly chicken and goats).

The main income sources are food crop farming, commercial farming (mainly cocoa), poaching and illegal wildlife trade in bushmeat and other products, logging and commercial wild plant and NTFP harvest (mainly chewing sticks), illegal artisanal gold mining, fishing, and small businesses.

A WCF livelihood survey in 2013 demonstrated that animal protein sources are comprised mostly of bushmeat (72%), as well as of fish and livestock. Nevertheless, a survey of preferences, demonstrates that around 70% would prefer consumption of fish and livestock, rather than bushmeat.¹⁸

Main bushmeat species consumed are duikers and monkeys, as well as hogs, carnivores, pangolins, forest porcupine and other rodents, and fowl, among others. Only around 12% of the households own livestock, mainly chicken and to a lesser extent, goats. The main food crops cultivated by communities around the GKNP consists of rice and cassava. Other food crops include maize, banana, plantain, eddoes, potatoes, yam, eggplants, beans, pumpkin, peanuts and vegetables. The main cash crop is cocoa, and to a lesser extent oil palm, rubber and coconuts. The main NTFPs harvested are chewing stick (*Garcinia afzelii*) for commercial purposes. Oil is produced from the seeds of Makore' tree (*Tieghemella heckelii*) and resin is collected from *Daniellia ogea* trees. Other NTFPs include medicinal herbs, wild fruit and nuts, bush pepper, bitter root, palm oil, snails, poles for construction, and thatch for roofing.

As based on information reported through community consultations in October-November 2019, commercial poaching targets mostly African grey parrots, pangolins, and primates, as well as numerous species used in the bushmeat trade.

The composition of different economic activities in the communities' income generation, varies between communities. Food crop cultivation normally forms between 25%-50% of the income in most communities, followed by commercial cocoa cultivation, hunting, small businesses, NTFPs harvest, and mining. Only a small number of community members have employment in the public or private sectors and in NGOs (6% of the Ambero-GIZ survey respondents).¹²

The Liberian Upper Guinea tropical forests, including the GKNP, contain gold and other valuable minerals. Artisanal and small-scale mining in particular is one of the most important income generating activities, in this region. Gold mining is a major concern and threat to the GKNP's natural resources, mainly through forest and land degradation and river pollution, especially where there is use of mercury. It also attracts

¹⁸ Y. Kablan, J.A. Kouassi, and E. Normand, 2013. Socio-economic study of local populations around the proposed Grebo National Park (South East Liberia): Perceptions of forest conservation, diet and impact of environmental education. WCF.

migration and encroachment and thereby increases risk of poaching and other illegal activities.¹⁹

Cocoa commercial farming is also one of the most important livelihood activities for many communities around Grebo-Krahn. Nevertheless, unsustainable cocoa cultivation is also a major driver of deforestation in the region. The widespread imitation of intensive agricultural practices in Cote d'Ivoire, involving non-shading cocoa cultivation, and the demand for land by migrant farmers, is a major driver of deforestation. The development of sustainable best-practice cocoa cultivation, based on the dissemination of agro-forestry methodologies, as well as support in developing fair marketing mechanisms, possibly through establishing PPPs, is therefore essential.²⁰

The Krahn communities adjacent to the GKNP are predominantly hunters, NTFPs gatherers and subsistence farmers of food crops. Currently, the majority of farming households are developing small cocoa farms as their primary source of sustainable cash income, with a medium-long term outlook, to substitute their income, previously dominated by extractive livelihood activities. Another economic activity of the Glaro people is producing palm oil and palm kernels for export.¹²

A survey conducted by the the TGS Project²¹ (2019) has revealed that most respondents experience severe food insecurity. Access of the communities to basic infrastructure and services, including housing, roads, clean water, energy, education, health, communication and job opportunities, is very limited, and normally available only in the larger urban centers of the Districts and Counties. A study measuring social wellbeing based on the Basic Necessities Survey (BNS) methodology²², which assesses the level of coverage of basic necessities, as defined by community respondents (such as education, employment, food security, housing, transport, communication, energy, health, water and sanitation), revealed severe lack of access to basic services. For example, when it comes to health and drinking water, only 25 % of the respondents can see a doctor or a nurse when in need, only 19 % have medicine available in the village and only 24 % of respondents have access to drinking water all the year. Access to education is very poor, with only 12.4 % affording to send all their children to school, while 79 % have children of school age that don't go to school. Habitat conditions are in the vast majority precarious, with only 34.7 % having a tin roof and only 12.9 % having their village accessible by bike or car throughout the year. Only 11.3 % receive a salary. However, 42.9 % own a cell phone.

Main essential social assets listed by the communities are: a clinic, a school, a town hall, access road, a well with a hand pump, latrines, a social club, Village Saving and Loan Associations (VSLA), a market, Global Systems for Mobile Communication

¹⁹ Osman, M. 2019. Assessment of artisanal gold mining value chains around the Grebo-Krahn National Park. Ambero-GIZ

²⁰ Massaquoi, E., C. Konan and A. Hill. 2019. Training needs assessment for Cocoa development and ecological connectivity in communities around the Grebo-Krahn National Park. Ambero-GIZ

²¹ Ambero – GIZ. 2019. Baseline of poverty and standards of living around the Grebo-Krahn National Park. Presentation. IMET / Planning & Management Workshop, November 2019. FDA.

²² <https://mande.co.uk/special-issues/the-basic-necessities-survey/>

(GSM) network, a church, and traditional societies. Most of these assets are available at the District level, however, availability at the chiefdom, Clan or town levels is much more limited. Limited food security, health, education, water and sanitation services, and road access, are major concerns for local communities.¹²

Extraction of forest products²³

Hunting is the most practiced forest extraction activity for men around the Grebo-Krahn national park. In Grand Gedeh 42% of male respondents (n=52, 42%) recognize practicing it regularly. The collection of thatch for roofing (n=52, 42%), collection of Bitterroot (n=42, 34%) and fishing (n=41, 33%) are also very important activities followed by collection of poles for construction (n=37, 30%) firewood (n=35, 28%) and Gathering of chewing sticks (n=25, 20%). In Grand Gedeh, 27% of respondents (n=33) said that they don't conduct any activity (n=33) .

In River Gee, hunting (n=41, 42%) is not the most practices activity among although it is practiced by an important percentage of respondents, but collection of Bitterroot (n=67, 68%). Collection of firewood (n=57, 58%), thatch (n=47, 48%), poles (n=46, 47%), fishing in rivers and creeks (n=44, 45%) and snail collection (n=27, 28%) are also widely practiced .

Firewood collection is the most practiced activity by women in River Gee and Grand Gedeh (n=62, 56% and n=81 and 84% respectively). In Grand Gedeh, this is followed by the harvesting of Bitterroot (n=41, 38%), fishing in rivers (n=21, 19%) and snail harvesting (n=19, 17%). In River Gee a 55% of female respondents (n=53) collects beetroot, 45% collecting snails (n=43), 26% collecting thatch (n=25) and 17% practicing fishing (n=16) and/or collects fruits and food (n=19, 19%) .

On average, people of Grebo-Krahn conducted forest activities - based on recall of the last 7 days - an average of 2.68 days, being slightly higher in the case of men (mean=2.81) than women (mean = 2.54). In total, 134 respondents (out of 427) declared not having conducted any activity in the forest at all in the last 7 days .

Monetization of the extraction of forest products

56% and 65% per cent of men respondents in Grand Gedeh (n=70) and River Gee (n=64) respectively recognize receiving income from the extraction of forest products .

In particular, 23% in both cases received income from hunting (n=29 in Grand Gedeh, and n=23 in River Gee) followed by mining (10%, n=12) in Grand Gedeh and fishing (12%, n=12) and harvesting firewood (11%, n=11) in River Gee .

In the case of women, 28% of respondents in Grand Gedeh (n=31) and 55% (n=53) in River Gee receive income from the extraction of forest products. In River Gee, collection of firewood (n=23, 24%) and Bitterroot (n=21, 22%) stand out as the main forest-related income generating activities for women .

²³ Ambero-GIZ, 2019. Grebo-Krahn livelihood assessment report

Income sources²⁴

Main income sources

Respondents were asked to list their four main sources of income and, with the assistance of the surveyor, estimate how much they contribute to their total income in percentage. First, respondents were asked about their main source of income, which generally accounts between 50% to 100% of total income.

The main source of income for men in Grand Gedeh is agriculture (n=42, 34%) followed by bushmeat (22 %, n=27), mining (16%, n=20) and trading (10%, n=12). Income from agriculture is mainly coming from foodcrops other than rice such as plantain, cassava, eddoes, etc. (19%, n=24) followed by cocoa (9%, n=11).

In River Gee, the importance of agriculture as the main source of income for men is even higher (68%, n=67) and income is mainly coming from cocoa (54%, n=53) ahead of foodcrops other than rice (13%, n=13).

Commercial activities are the main source of income for women in Grand Gedeh (36%, n=38) followed by agriculture (33%, n=36), specially foodcrops other than rice (23%, n=25).

For women in River Gee, agriculture is the most important activity (59%, n=57) of which 29% (n=28) corresponds to foodcrops other than rice and 27% to cocoa. Commercial activities come afterwards (26%, n=25).

Secondary sources of income

In River Gee, food crops other than rice - ranging from plantain, to eddoes or vegetables (n=55), Fishing (n=20), and Cocoa (n=13) stand out among the most referred complementary sources of income for men. Foodcrops other than rice (n=54), NTFPs (n=13) and trade (n=12) are also referred to as important sources of income. In Grand Gedeh, 76 men and 70 women mentioned foodcrops other than rice. NTFPs (including Bitterroot and chewing sticks (20 men and 10 women), rice (15 men, 10 women), bushmeat (13 men) and fishing (11 men) were also mentioned. As a conclusion, men are more dependent on the extraction of forest products for income than women. This dependence is especially high in Grand Gedeh than in River Gee, given the greater importance of cashcrops (cocoa) in the latter.

Importance of forest products among income activities

In total 74 men from Grand Gedeh (60%) confirmed that forest products including bushmeat, NTFPs, logging or mining were among their 4 most important sources of income for 46 (46%) of male respondents in River Gee. This contrasts with only 23 women (21%) in Grand Gedeh and 17 (18%) in River Gee.

Conclusions:

²⁴ Ambero-GIZ, 2019. Grebo-Krahn livelihood assessment report

- The extraction of forest products, including hunting, is an important source of income for communities in Grand-Geddeh and River Gee, especially among men.
- The dependence on forest products for income is higher among men in Grand Gedeh than River Gee, who largely rely on cocoa as their main source of income.
- Hunting is widely and frequently practiced (+40%) by men in both areas. Bitterroot collection and chewsticks are also important income generating activities in both regions, however, bitterroot is more important as an income generating activity in River Gee than in Grand Gedeh and chewstick are harvested intensively in both Counties, River Gee and Grand Gedeh.
- Agriculture is the most frequent income generating activity in both areas however there are differences among both countries: while foodcrops are the most important income activity in Grand-Gedeh, cocoa is the most important activity in River Gee.
- Commerce and small trading is mostly a feminine activity, being the most important source of income for 35% of respondents in Grand Gedeh and 25% in River Gee.

Human-Wildlife-Conflict

Communities have reported on Human-Wildlife-Conflict (HWC) issues.¹² HWC forms a more serious concern and threat to food security for communities in the immediate vicinity to the Park and dense forest. Main HWC issues are related to the destruction of food crops (by giant forest hog and to a lesser extent, red river hog, antelopes, rodents, buffalo, and pigmy hippopotamus) and of tree crops (by chimpanzees and monkeys).

Co-management and local economic development opportunities

As required by section 5.9.2. of the National Wildlife Conservation and Protected Area Management Law of Liberia, a Protected Area's management plan would include reference to "*development of economic opportunities within and adjacent to the protected area in terms of the integrated development plan framework*". Moreover, the third of five management objectives of the GKNP, as defined following extensive stakeholders' consultations, in the Fishtown conference declaration (2017), is: *Enhance community empowerment and benefits around the GKNP*. The Thematic Management Programmes 2 (Stakeholders' engagement and co-management programme) and 3 (Sustainable livelihoods and local development programme), of this Management Plan, set the way forward for establishing permanent consultation forums with the communities' representation, and for the development of sustainable alternative livelihoods for local communities residing in the GKNP's surroundings, for enabling co-management that enhances engagement of the local communities in the Park's management and conservation, and their benefitting from shift to sustainable best practices.

Extensive consultations were held with communities and other stakeholders through the baseline studies²⁵, and during the process of developing this management plan.

²⁵ E.g.,

Thematic management programmes 2 and 3, in combination with the baseline studies, and continued on-going consultations, provide the basis for the elaboration and implementation of detailed annual livelihood work-plans that are community-specific, at clan level. Consultations for the refined elaboration of Clan-specific livelihood workplans, will be led by the FDA, with the Protected Area Management Advisory Committee (PAMAC), and the Community Land Management and Development Committees (CLMDCs) or Clan Forest Committees (CFCs), and with the engagement of stakeholders and partners, including the private sector, local NGOs and CBOs, international NGOs and donors.

Existing interventions supporting the community livelihoods in the GKNP and in the TGS context, include:

- GIZ/TGS-FL transboundary project with FDA and OIPR: *Strengthening ecological connectivity in the Tai-Grebo Krahn-Sapo (TGS) Forest Complex between Côte d'Ivoire and Liberia*;
- WCF project with FDA and Multi-Agrisystems Promoters (MAP), (2016-2019): Support to community-based law enforcement and alternative community initiatives to mitigate major anthropogenic threats on the largest remaining forest block in West Africa, the Tai-Grebo Krahn-Sapo Forest Complex (Côte d'Ivoire /Liberia);
- USAID project with FDA, WCF, MAP, the Society for the Conservation of Nature of Liberia (SCNL), Fauna & Flora International (FFI), Eddie Theatre production, and other partners (2017-2020): Strengthening Multi-Stakeholder Management of the Tai-Grebo-Krahn-Sapo Transboundary Forest Landscape between Liberia and Côte d'Ivoire;
- FFI is also working with partners to develop a central database for wildlife crime in Monrovia, which will be relevant for biomonitoring and law enforcement purposes in the GKNP, as well;
- Long-term support for biodiversity conservation and benefits for local communities of the WCF with FDA, including – Community Ecoguard Program; awareness raising (Ecoguards, Eddie Theater, amateur theater, radio); fish farming; beekeeping; lowland rice farming; cassava farming; biomonitoring; infrastructure (installing hand pumps, town hall rehabilitation, school rehabilitation, road maintenance), in selected settlements;
- USAID – WA BiCC Project (West Africa Biodiversity and Climate Change) with the FDA and WCF (Since 2018 and on-going).

- Ambero-GIZ, 2019. Grebo-Krahn livelihood assessment report

- Y. Kablan, J.A. Kouassi, and E. Normand, 2013. Socio-economic study of local populations around the proposed Grebo National Park (South East Liberia): Perceptions of forest conservation, diet and impact of environmental education. WCF.

1.2.6. Importance and significant resources of the GKNP, justifying its designation as a National Park

The GKNP was gazetted based on the Park's outstanding globally recognized biodiversity value, being located in the heart of the Tai-Grebo-Sapo Forest Complex, a well identified biodiversity hotspot, containing some of the last remains of Upper Guinean rainforest ecosystem in West Africa, as well as important waterbodies and wetlands. Studies have shown that it harbors some of Liberia's most important wildlife. It was defined as a very important habitat for the critically endangered western chimpanzee (*Pan troglodytes verus*). Iconic species in this forest include, among others, the vulnerable forest elephant (*Loxodonta cyclotis*), the endangered western red colobus (*Procolobus badius*); the endangered pygmy hippopotamus (*Choeropsis liberiensis*), the endangered Jentink's duiker (*Cephalophus jentinki*), the vulnerable zebra duiker (*Cephalophus zebra*), and the vulnerable leopard (*Panthera pardus*).

The forest is also of great importance to mitigating climate change in the sub-region, and in protecting the persistence of fertile soil for cultivation around the forest area. Its location along the border with Côte d'Ivoire is crucial to the preservation of a continuous forest cover stretching from the Tai National Park and the Cavalla Classified Forest in Côte d'Ivoire to the Sapo National Park in Liberia, and thereby for enabling connectivity and the movement of wildlife across the transboundary landscape.

Apart from its biodiversity value, the conservation of the TGS Complex is also essential to ensure the sustainability of ecosystem services, on which many rural livelihoods depend. Specifically, the GKNP's surroundings is home for the indigenous Krahn and Grebo communities, and its protection is essential for their livelihoods and well-being, and to the preservation of cultural assets and traditional knowledge. Due to the global and national ecological importance of the GKNP's forest and biodiversity, it also has a high potential to support sustainable livelihoods and other long-term benefits for the surrounding communities, including their active engagement in the Park's conservation and sustainable management. Further detailed information on the ecological and socio-economic importance of the GKNP, is provided in sections 1.2.4. and 1.2.5. above, respectively, and in the annexed baseline studies (Annex I).

In this globally important ecosystem, there is an opportunity to develop the future development trajectory from natural resource depletion and biodiversity erosion to one based on natural capital management and productive landscapes. The recent establishment of the GKNP represents one of the multiple ecosystem based interventions of the "Strengthening ecological connectivity in the Tai-Grebo-Sapo forest complex between Côte d'Ivoire and Liberia" Project, to achieve the latter.

1.2.7. The TGS transboundary context

The elaboration of the management plan for the GKNP is conducted under the GIZ/TGS-FL transboundary project: *Strengthening ecological connectivity in the Tai-Grebo Krahn-Sapo (TGS) Forest Complex between Côte d'Ivoire and Liberia*. The Tai-Grebo-Sapo forest complex (TGS) contains some of the last remains of Upper Guinean

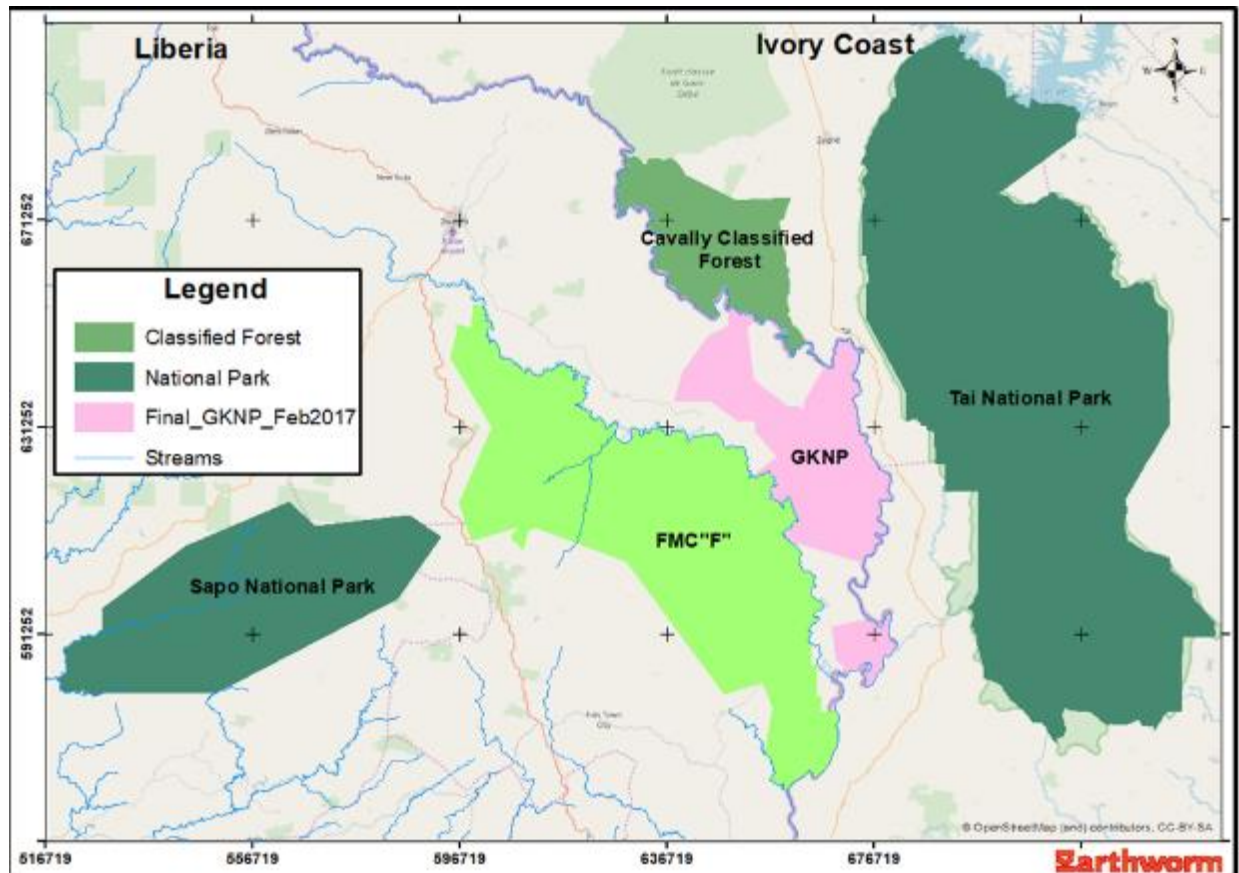
rainforest ecosystem in West Africa. It encompasses the Tai National Park (TNP), the surrounding classified forests (CF) Cavalla, Goin-Débé and Haute-Dodo in Côte d'Ivoire, and the National Parks of Grebo-Krahn (GKNP) and Sapo (SNP), and the forest concession FMC-F in Liberia.

The TGS Complex is under significant anthropogenic pressures caused by population growth, infractions related to cross-border infiltration, and the resulting unsustainable exploitation of its natural resources and unsustainable agricultural activities. Main anthropogenic pressures and threats identified in the GKNP, prevail throughout the TGS Forest Complex area in both countries. Some of the main threats are of transboundary nature. A main transboundary threat is forest degradation and fragmentation, caused by unsustainable exploitation of its natural resources and agricultural activities, with impact significantly increased through illegal cross-border migration. Another major threat of transboundary nature is the illegal cross-border trade in wild flora and fauna, and in other illegally obtained products. The TGS cross-border collaboration, and in particular joint management planning, implementation and monitoring, is a centerpiece tool in addressing the identified threats and in achieving the conservation and social goals of each individual Protected Area within the complex.

The TGS cross-border collaboration initiative was launched in 2009. A Bilateral Steering Committee (BSC) of the two Governments, for this initiative, has been meeting regularly since 2013, with partners' support. The leading agencies of the transboundary collaboration are the FDA in Liberia and OIPR (Ivorian Office for Parks and Reserves) at the Ministry of Environment and Sustainable Development (MINEDD) in Côte d'Ivoire. The purpose of the BSC is follow-up and orientation of activities in Liberia and Côte d'Ivoire for the preparatory process of the TGS, sharing of cross-border management experiences, cross-border coordination, and orienting the supporting projects of partner organizations and aid agencies. The 5th meeting of the BSC (2018) recommended the drafting of a framework agreement or Memorandum of Understanding (MoU); establishment and implementation of a strategic vision of cross-border collaboration; conducting cross-border risk identification study; defining urgent actions and their follow-up; improvement of the synergy between the TGS projects for achieving the results of the feasibility study realized, and accelerating implementation of planned activities.²⁶

²⁶ USAID & GIZ, 2018. Report of the 5th meeting of the Bilateral Steering Committee for transboundary collaboration in the Tai-Grebo Krahn-Sapo (TGS) forest complex between Liberia and Côte d'Ivoire . FDA and OIPR.

Map 5: The TGS Forest Complex. (Source: Earthworm, 2019. The satellite images interpretation support mission for Land Cover Mapping in the New Grebo-Krahn National Park and its periphery)



1.2.8. Stakeholders analysis

Stakeholders are defined as all entities who impact the GKNP management, conservation and use, and/or are impacted by it. Table 2 provides a stakeholders' analysis, with the list of all relevant stakeholders, divided by categories of level of their required engagement. Individual stakeholder's consultation category is a function of the level that they impact the GKNP management, conservation and use, and/or are impacted by it.

The stakeholders' analysis is used as a basis for the development of Thematic Management Programme 2: Stakeholders' engagement and co-management programme. Further details and way forward for stakeholders' engagement are provided in this thematic programme.

Table 3: Local stakeholders' characterization (Source: Bangura, 2020)

Stakeholder Group	Stakeholder Group Name (SGN)	Description of the stakeholder group
1	Traditional people	Powerful traditional council; one of their shrines (sacred forests) lies within the park and others outside the park in community lands. The protection of their rights is both Liberian and international responsibility since many of the forests or shrines they occupy and other resources which they own or otherwise occupy or use, cross national boundaries
2	Town Chiefs	The Town Chiefs and General Town Chiefs have several duties in the village and is sometimes seen as a mediator in disputes and a general "fixer" of village or individual problems
	Superintendents	Political heads of the counties
3	District Commissioners	Political heads of the districts
4	Clan Heads	The clans are local political units created as part of chiefdom divisions
5	Paramount Chiefs	Paramount chieftaincy is a traditional system of local government and an integral element of governance in Liberia. The paramount chiefs are community leaders and their tasks involve - among others - protecting community safety and resolving disputes. They head the clans
6	Partners	FDA, WCF, GIZ, KFW, Ambero
7	Traditional land owners	Citizens, families
8	Land users	Community inhabitants

Table 4: Stakeholders' analysis

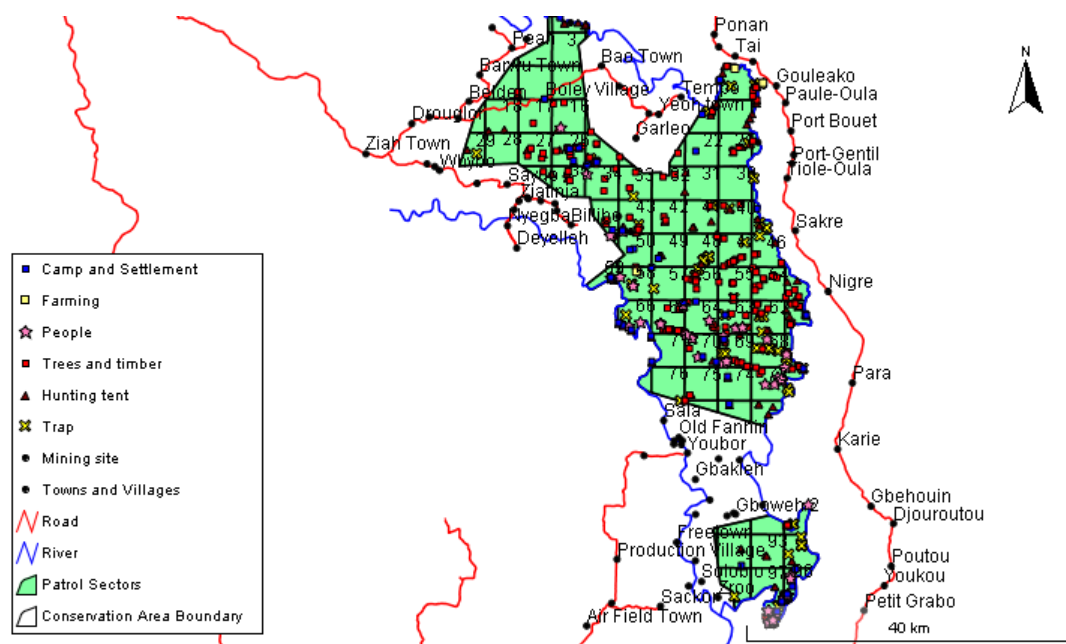
Stakeholders' Category	Category definition	Stakeholders
A	Stakeholders that lead the GKNP and surroundings co-management planning and implementation	<ul style="list-style-type: none"> • FDA; • Park staff; • PAMAC; • County Authorities; • District Authorities; • Community management and development committees
B	Stakeholders that must be consulted and participate actively in the land-use planning, management planning, decision-making and implementation	<ul style="list-style-type: none"> • Line Ministries and Agencies (Agriculture; Liberia Lands Authority; Environmental Protection Agency; Interior; Infrastructure and public works; Water; Mine and Energy; Transport; Social Affairs; Health; Education; Defense; Tourism; Justice; Finance); • OIPR (the main Counterpart in Côte d'Ivoire); • WCF
C	Stakeholders that have to be consulted and engaged in the management planning, implementation, and evaluation	<ul style="list-style-type: none"> • Local NGOs and CBOs (LISUPED, CENFOR, SCNL); • International NGOs and donors (GIZ, KfW, FFI, IDH, World Bank, EU, USAID-WA-BICC, MAP,);

		<ul style="list-style-type: none"> • Private sector: logging, mining, agriculture, cocoa trade; constructions and development works; • Additional Ivorian counterparts (e.g., Forestry Ministry, border authorities); • Traditional Council;
D	Stakeholders that would be good to consult in the process of management planning, implementation, and evaluation	<ul style="list-style-type: none"> • Religious authorities; • Further potential partner organizations and donors; • The Liberian Parliament; • Academic and research institutes; • Regional forestry networks • Individual experts and researchers;
E	Stakeholders that do not need to be consulted but need to be informed	<ul style="list-style-type: none"> • The general public • Potential visitors/tourists • Journalists – national and international

1.2.9. Threats analysis

The main identified threats to the GKNP's biodiversity conservation and ecological integrity, were described through the gazettement package and baseline studies, and discussed through the preparatory mission and the IMET and Participatory Diagnosis Conference, in October-November, 2019.²⁷

Map 6: Anthropogenic threats identified throughout the GKNP gazette area (Source: WCF, 2020).



The main threats identified in the GKNP and its surroundings, are:

- Habitat loss, ecosystem and land degradation, and forest fragmentation, through – encroachment, unsustainable agriculture practices, logging, and unsustainable harvest of NTFPs;

- Biodiversity loss, through - subsistence and commercial bush meat hunting, and poaching of target threatened species for the Illegal Wildlife Trade (IWT);
- Negative impacts of mining, and of development works and other land uses, that are incompatible to the conservation and sustainability objectives.

Additional threats include:

- Human-Wildlife-Conflict
- Invasive species
- Climate change impact
- Water pollution
- Poor waste management and sanitation
- Fire
- Infectious diseases threatening iconic species

Unsustainable cultivation

Unsustainable cultivation practices are the main cause of land and ecosystems degradation and of forest habitat fragmentation in and around the GKNP. Both slash and burn practice for subsistence food crop cultivation (mainly rice, cassava and vegetables), and large-scale commercial agriculture (mainly cocoa, and to a lesser extent, rice, rubber and oil palms), form a significant threat to ecosystems integrity. With the GKNP's gazettement, farming sites have been omitted from the Park area, and communities shifted to increase the use of the surrounding area for farming, with significant negative impact on ecological connectivity between the two Park blocks and in the TGS context. The land cover analysis developed by Earthworm, comparing satellite images from 2013 and 2019, shows recovery of forest area within the GKNP gazetted area, but increased forest degradation in the area surrounding the GKNP. Supporting a shift of communities to sustainable cultivation practices is therefore key to enabling biodiversity conservation the GKNP and its surroundings, including enabling connectivity in ecological corridors.

Logging

Commercial logging concessions, logging in community forests, and anarchic/illegal logging form a considerable threat to ecosystems integrity, as well as an indirect threat related to the construction of roads and to the engagement of loggers in illegal activities, such as hunting and illegal wildlife trade. Good land use planning in the allocation of forest concession locations, and good management and control of best-practices in logging concessions, including the related infrastructure and works and prevention of illegal activities, including in community forests, can mitigate threats and integrate concession areas as part of ecological corridors.

Unsustainable NTFP harvest

The illegal and unsustainable harvesting of chewing stick (*Garcinia afzelii*) for commercial use, has been identified among major threats in the GKNP. According to the baseline studies, and an on-going survey conducted by WCF, the illegal harvesting

of chewing sticks in the forest is still high, despite a moratorium ban on the extraction of this species. Harvesting of NTFP is an important livelihood source for communities, with frequent extraction for subsistence use and trade. Shift to sustainable harvest of NTFP, including indigenous tree nurseries and indigenous herb cultivation, can be an important component of shift from unsustainable to sustainable livelihood practices.

Hunting:

Wildlife hunting is accounted to three main causes: subsistence bush meat hunting, bushmeat poaching for commercial use, and poaching of target threatened species for the Illegal Wildlife Trade, including cross-border traffic. Poaching for illegal wildlife trade is normally linked to international criminal networks, and can have a devastating impact on local extinction (and accelerating global extinction) of specific species that are main targets of illegal trade (e.g., chimpanzee, forest elephant, pangolin, African grey parrot). Commercial bushmeat poaching is less selective and to a large extent based on unselective hunting methods of traps and snares. It can cause rapid population decrease of many large and medium-sized mammals, as well as of birds, reptiles and fish. A WCF survey²⁸ identified 17 different species consumed by local populations near the proposed park including 5 protected species. Nevertheless, hunting activities impact not only the consumed species. Even if hunting can be abolished within the Park, continued substantial hunting in the Park's surroundings would negatively impact connectivity and wildlife movement between the TGS Parks, and consequently would also isolate wildlife populations and decrease their genetic viability. Strictly limited and well controlled subsistence hunting outside the Park area, of species that are not threatened, can be kept at a sustainable level. Nevertheless, due to both conservation considerations and health hazards related to bushmeat consumption, the development of alternative sources of protein (e.g., small livestock, cane rat captive breeding, fish farming, etc.), should be prioritized. The WCF survey results indicate that people from Grand Gedeh consume more bushmeat than people from River Gee.

Mining

Mining activities, and specifically the uncontrolled and anarchic artisanal gold mining that occurs in the GKNP and its surroundings, while performed in a relatively small area of the park and its surroundings, have significant impact over a much larger area²⁹. Gold mining activities pose a threat to freshwater and forest resources in and around the Grebo-Krahn National Park, especially along the Cavalla and Dugbe rivers, which mark its natural boundaries. Among direct threats to biodiversity associated with

²⁸ Y. Kablan, J.A. Kouassi, and E. Normand, 2013. Socio-economic study of local populations around the proposed Grebo National Park (South East Liberia): Perceptions of forest conservation, diet and impact of environmental education. WCF.

²⁹ See:

- Osman, M. 2019. Assessment of artisanal gold mining value chains around the Grebo-Krahn National Park. Ambero-GIZ

- AHT Group AG. 2017. Mission Report: Identification of criteria and a strategy for the establishment of an ecological corridor between the Grebo and Sapo Protected areas. KfW-funded. Forest Development Authority (FDA), Liberia.

artisanal mining, there are - land degradation and forest conversion, water pollution and devastating impact on water bodies, noise pollution. Indirect threats are caused mainly by increasing migration and encroachment, construction of roads and infrastructures, and engagement of miners in additional illegal activities, mainly hunting and illegal wildlife trade. The increasing use of mechanized mining methods increases both the impact and the impacted area. Use of mercury is a major risk to both biodiversity and humans. Around the Grebo-Krahn National Park there is a high involvement of community members in gold-mining activities. Communities provide work force, are involved in the trading of minerals and contribute to the organization of mining operations.

Unsustainable development

Unsustainable development works and other land uses, that are incompatible to biodiversity conservation, negatively impact ecosystems' integrity and connectivity, through increasing habitat loss and fragmentation, land degradation, and pollution. Specifically, the planned Ganta-Zwedru road as well as the Zwedru-Fish Town-Harper roads are expected to result in increased traffic intensity and speed, in addition to direct impact of the road construction, and thereby increase risk to wildlife and reduce ecological connectivity. The construction of roads and other infrastructures may also result in increased encroachment and illegal activities, and in particular may facilitate illegal wildlife trade.

In the TGS transboundary context, infrastructure and agricultural development in Côte d'Ivoire also makes the GKNP more fragile, and increases demand to forest products and forestlands from Liberia. Overlapping development activities, when not well managed related to commercial timber extraction areas, also create a serious challenge.

The coordinated planning of all land uses and infrastructure constructions, within the overall spatial planning of the GKNP and its surroundings, in light of the Park's objectives, combined with conducting robust ESIA's (Environmental and Social Impact Assessments) for any development project and detailed orientation for risk mitigation, in each case, are essential. Coordination of cross-border planning of development works and infrastructure constructions, in the context of the TGS landscape, is also critical.

Encroachment

Demographic growth and migration result in increased encroachment and pressures on the ecosystems and natural resources, through increase in the extent of all of the abovementioned threats. Migration has been occurring in West Africa during several decades, mainly by people from areas in the Sahelian and Sudan climate zones in Mali, Burkina Faso, Niger and northern Côte d'Ivoire to the forested coastal regions³⁰ Most of the migrants are involved in cocoa farming, rice farming and increasingly palm oil and rubber. These activities have resulted in the removal of approximately 95% of the

³⁰ AHT Group AG. 2017. Mission Report: Identification of criteria and a strategy for the establishment of an ecological corridor between the Grebo and Sapo Protected areas. KfW-funded. Forest Development Authority (FDA), Liberia.

forest between Taï NP and the Liberian border. Since peace has been established in Liberia in 2003 after the civil war, migration is becoming an important social factor in this country too. The areas along the Côte d'Ivoire border are becoming a spill-over of the pressure on land in Côte d'Ivoire.

In the GKNP, the main migration vector is related to commercial extraction of timber/bushmeat from Nimba county. On the other hand, there are short-term infiltrations (rather than long-term migration) from Côte d'Ivoire, through the Cavalla River, that is related to illegal activities of bushmeat, timber, and gold extraction, as well as to cocoa farmlands. There is also migration that is related to river mining and alluvial gold mining from Côte d'Ivoire. Finally, there is a demand for land coming from migrant farmers from Côte d'Ivoire. Migration requires that access would be enabled by local communities, with trans-boundary help (e.g., of Liberians living in Côte d'Ivoire or Ivoirians who share family bonds with communities in Liberia and acting as gate keepers), or granted by law enforcement agencies and border authorities.

Table 5: Threats analysis (Rate: 1=extremely high concern; 2=very high concern; 3= high concern; 4=moderate concern; 5=least concern)

Threat	Assessed level of concern	Main actors influencing the threat (negative and positive impact)
Unsustainable food crop cultivation	1	Local communities; Local authorities; Ministry of Agriculture; FDA; NGOs; conservation farming experts;
Unsustainable commercial cultivation (mainly cocoa)	2	Local communities; Local authorities; Ministry of Agriculture; FDA; NGOs; experts; Private sector
Commercial bushmeat poaching	1	Local communities; Local authorities; FDA; NGOs; Traders and consumers; Police;
Poaching for illegal wildlife trade in target species	1	Local communities; Local authorities; FDA; NGOs; Traders and consumers; Trafficking networks; Police; Border authorities; Multi-sectorial wildlife crime task force;
Subsistence bushmeat poaching	2	Local communities; FDA; Local authorities; international NGOs; local NGOs and CBOs;
Unsustainable NTFP harvest (mainly chewing sticks)	2	Local communities; Local authorities; FDA; NGOs; Traders and consumers; Trafficking networks; Police; Border authorities; Multi-sectorial wildlife crime task force; experts;

Logging	2	Local communities; Local authorities; FDA; NGOs; Private sector;
Anarchic artisanal gold mining	1	Local communities; Local authorities; FDA; NGOs; Miners; Trafficking networks; Police; Border authorities; Multi-sectoral wildlife crime task force; Ministry of Mines and Energy;
Mining concessions	3	Local communities; Local authorities; FDA; NGOs; Miners; Ministry of Mines and Energy; Private sector
Incompatible development works, and infrastructure constructions	2	Local communities; Local authorities; FDA; NGOs; EPA; Line Ministries; Private sector
Migration and encroachment	1	Local communities; Migrants; Local authorities; FDA; NGOs; Border authorities; Immigration; Line Ministries
Human-Wildlife-Conflict	3	Local communities; Local authorities; FDA; NGOs; Ministry of Agriculture; HWC experts;
Invasive species (<i>Chromolaena odorata</i>)	3	FDA; NGOs; experts;
Climate change impact	3	FDA; EPA; Line Ministries; NGOs; experts;
Fishing	4	Local communities; Local authorities; FDA; NGOs;
Water pollution (rivers, lakes, streams)	3	Local communities; Local authorities; FDA; NGOs; Line Ministries (Mines and Energy, Water);
Poor waste management and sanitation	3	Local communities; Local authorities; FDA; NGOs; Line Ministries;
Fire	4	Local communities; Local authorities; FDA; NGOs; Line Ministries; experts;
Infectious diseases threatening iconic species	4	Local communities; Local authorities; FDA; NGOs; Line Ministries (Health); Veterinary Services;

1.2.10. SWOT Analysis

A SWOT analysis of the GKNP's, identifying main strengths, weaknesses and constraints, opportunities, and threats, and their relative rating, provides a useful tool in the selection and prioritizing of management activities. The SWOT analysis is based on the baseline studies and documentation, and on the consultation process, held in preparation of this management plan, including the IMET and Participatory Analysis Workshop held in November 2019.

Table 6: SWOT analysis of the GKNP (Rate: 1=Very High; 2=High; 3=Medium; 4=Low; Very Low)

Strengths	Rate	Weaknesses and constraints	Rate
Rich biodiversity and important tropical forest ecosystems;	1	Significant threats to ecosystems' integrity and biodiversity;	1
Presence of outstanding/iconic, threatened, and endemic species;	1	Large population surrounding the Park;	1
Overlapping with part of the global conservation priority area of the Upper Guinean biodiversity hotspot;	2	Surrounding population subjected to poverty, and dependent on livelihoods that are based on unsustainable use of the natural resources	1
Transboundary importance as part of the TGS forest complex;	1	Insufficient land use planning at local and National levels, resulting in sectorial plans and activities that are incompatible with the Park's objectives (e.g., incompatible road construction and plans)	2
Political will at the national level: the National Park was gazette; Government care for forest and biodiversity is increasing; and the FDA mandate in protecting the forests and natural resources was strengthened;	2	Serious access difficulties to the Park, to the surrounding communities, and between them;	1
Transboundary political will; Bilateral cooperation initiated through the BNS;	2	Lack of essential infrastructures and very limited access of communities to essential services;	2
Expressed will of stakeholders at all levels to participate in sustainable management of the GKNP;	1	Very limited access to employment and alternative livelihoods to hunting and unsustainable practice;	2
Social, economic and cultural importance;	1	Cross-border illegal wildlife trade with likely involvement of international criminal networks;	1
Importance for climate change mitigation and adaptation;	2	The Park's Gazettement was initially perceived by communities as encroachment to their lands, and would oppose the Park, if promised improved well-being would not be delivered;	3
Key baseline studies conducted, and essential information compiled, in preparation of the gazettement package and of the management plan;	2	High expectations were raised among communities, without current access to sufficient resources to fulfill them; Communities' dissatisfaction with level of delivery and inadequate capacity building and follow-up of livelihood opportunities provided was expressed;	2
Extensive consultations were held with all key stakeholders, and in particular with the local communities, and their concerns are addressed in the management plan and specific project interventions (including, e.g., the pre-gazette adjustment of the Park's boundaries);	2	Insufficient governmental budget secured for the Park's operation, the communities, and co-management;	2
Several projects of support to developing sustainable livelihoods and provision of essential infrastructure and essential services initiated, but still at initial phase and vastly insufficient;	4	Communities express lack of trust in the FDA and dissatisfaction with progress of promises' delivery;	2
Local communities have a stable traditional governance structure, that is respected by community members as representative;	3	Difficulties in mobilizing new and additional funding sources;	3

Interdepartmental collaboration and communication with stakeholders and partners is increasingly improved;	4	Insufficient staff complement of the GKNP	1
Human-Wildlife-Conflict is reported, but not as a major concern;	4	Difficulties to attract qualified and experienced Park staff;	3
		Weak national biodiversity conservation capacity and budgets;	3
		High dependency on short-term donor and partners support creates high risk and vulnerability;	2
		Insufficient communication and coordination strategies, and comprehensive conflict management with local communities;	3
		Insufficient institutional structures for co-management;	3
		Insufficient law enforcement at all levels;	2
		Centralization of decision-making at FDA HQ;	3
		The park is designed in two separate units;	2
		Insufficient interdepartmental collaboration and communication with partners	3
		A negative trend of forest degradation has been recorded in the area surrounding the GKNP, following the GKNP's gazette, and the removal of farm lands from the Park;	3
Opportunities	Rate	Threats	Rate
Improved management capacity of the GKNP is in FDA planning, and part of projects developed with partners;	2	Unsustainable food crop cultivation	1
Good potential for establishing multi-sectorial collaboration at the national and local levels, in integrated land-use planning and in co-management of the GKNP and surroundings;	2	Unsustainable commercial cultivation (mainly cocoa)	2
Good potential for establishing cross-border collaboration, in effective management and protection of the GKNP within the context of the TGS forest complex;	1	Commercial bushmeat poaching	1
Increasing national political will and support;	2	Poaching for illegal wildlife trade in target species	1
Stakeholders interest in participation in the GKNP co-management and communities interest in shift to sustainable livelihoods;	1	Subsistence bushmeat poaching	2
Dedicated and capable local NGOs enhancing awareness, good relations, communication and collaboration with the local communities and the traditional leadership;	1	Unsustainable NTFP harvest (mainly chewing sticks)	2
Multi sectorial collaboration and law enforcement initiated through the Multi-sectorial wildlife crime task force, and cross-border collaboration in law enforcement established through the TLETC;	2	Logging	2

Partners supporting projects for developing sustainable alternative livelihoods and of installing essential infrastructures and services for improved communities' well-being, food security and benefits;	1	Anarchic artisanal gold mining	1
Potential for the developing of eco-tourism in the long term;	5	Mining concessions	3
Increasing local, national, regional and global awareness to the importance of the TGS forest complex and its biodiversity;	3	Incompatible development works, and infrastructure constructions	2
Excellent NTFPs potential; and increasing interest in sustainable cultivation and harvest of NTFPs;	2	Migration and encroachment	1
Communities participate willingly in coordination meetings and awareness activities; and willing to participate in pilot projects of alternative livelihoods;	2	Human-Wildlife-Conflict	3
A positive trend of forest restoration has been recorded within the GKNP area, following the GKNP's gazette, and the removal of farm lands from the Park;	3	Invasive species (<i>Chromolaena odorata</i>)	3
Forestry companies open to engage in sustainable forestry practice with communities' engagement;	4	Climate change impact	3
Cocoa farming and marketing companies open to engage in sustainable cocoa cultivation projects with the communities;	3	Fishing	4
		Water pollution (rivers, lakes, streams)	3
		Poor waste management and sanitation	3
		Fire	4
		Infectious diseases threatening iconic species	4
		The park's designation in two separate units, with connectivity between them being increasingly compromised through unsustainable activities, reduces ability to protect ecosystems' integrity and viable wildlife populations	2



Part 2: Management Plan

This management plan provides details for the management of the GKNP, in two separate sets of action planning, that are complementary and partially overlapping. Together they provide tools for FDA, Park staff and co-management partners, to best achieve the Park's vision, goals and management objectives.

Part 2.A. provides a full strategic tool-kit and actions for the mitigation of each of the main identified threats to the ecological and social integrity of the GKNP and its surroundings.

Part 2.B. complements these action sets by providing thematic programmes for the distinct implementation of each management theme. The thematic management programmes are cross-cutting and detail the respective thematic action required for the mitigation across all threats. Thus, together, they support achieving all of the park's management objectives.

Part 3 sets a monitoring and evaluation plan, to enable the on-going assessment of both performance and outcome progress in the management plan's implementation, identifying challenges and constraints, and adjusting the plan, in a continuous and adaptive process.

Part 4 provides an initial implementation plan of the management plan and thematic programmes, during the first two years.

2.A. – Threats Mitigation Plan

The following threat mitigation plan forms the core of the management plan. It sets principle targets for the mitigation of each of the main identified threats. Feasible strategies are proposed for achieving each target, and specific activities are detailed, for the implementation of each strategy. Moreover, each activity specifies the key stakeholders responsible for its implementation.

This section thus provides practical guidance for essential action required to achieve the main management objectives for maintaining the GKNP's integrity. Co-management, with the engagement of all key stakeholders, and through mobilizing, formalizing and strengthening local, national, regional and international partnerships, is a centerpiece of all actions.

Since this section provides, in detail, all actions required for the mitigation of each threat, some overlap can be noted between the action needed for the mitigation of different threats (e.g., same awareness activities or enforcement action can target more than one threat). Some overlap therefore exists also between the threat mitigation plan and the individual thematic management programmes.

Thereby, the two sections combined provide to the FDA, Park staff and partners, full sets of actions required for the mitigation of each of the main threats, as well as full sets of actions for the separate implementation of each thematic programme, across all threats and management objectives.

The full plan can be compared to a cookbook, setting all ingredients and detailed guidance for the cooking of full meals in section 2.A., and providing separate complementary guidance for the cooking of specific meal components (salads, fish, cakes, etc.), in Section 2.B. The same ingredients and cooking procedures may be used in different compositions to produce different products. Any cook using such a book can thus find it practical, effective, and easy to use, in accordance to their changing needs.

It should be noted that some of the detailed actions are likely to be very costly and may exceed the financial and technical capacity of the FDA, Park staff and partners. Nevertheless, the management plan provides holistic information on all actions that can together enable mitigating each specific threat. The annual workplans, to be developed by the FDA and Park staff, through consultations with key stakeholders and partners, will serve to select annually a set of actions to be implemented, in accordance to dynamic identification of needs, and of available sources.

To facilitate complementary use of Sections 2.A. and 2.B., Table 7 provides cross reference between the strategies proposed for achieving the targets defined for specific threats, as detailed in Section 2.A., and the relevant corresponding thematic management plans, described in Section 2.B. Note that the overlapping is only partial: not all activities in Section 2.A. correspond with specific thematic programmes, and the thematic programmes in Section 2.B also contain activities and details that are theme-

specific and not included in Section 2.A. E.g., thematic programmes 6, 10, and 11, provide guidance for building the Park’s operational capacity, and not related to any specific management action. Holistic approach to the Park management requires the complementary implementation of actions, based on both approaches, of threat mitigation, and thematic action plans.

Table 7: Cross reference of threat mitigation strategies, detailed in Section 2.A,. and the corresponding management plans specified in Section 2.B.

Threat	Strategy	Corresponding Thematic Management Plans
Threat I: Habitat loss, ecosystem and land degradation, and forest fragmentation, through – encroachment, unsustainable agriculture practices, logging, and unsustainable harvest of NTFPs	I.1.1.	2; 3; 7; 9; 11
	I.1.2.	2; 3; 7; 9; 11
	I.2.1.	2; 3; 7; 9; 11
	I.2.2.	1; 2; 3
	I.2.3.	2; 3; 7; 9; 11
	I.3.1.	1; 2; 3
	I.3.2.	2; 3; 4; 8
	I.4.1.	2; 3; 4; 5; 7; 9; 11
	I.5.1.	1; 2; 3; 4; 7; 11
	I.6.1.	1; 5; 9; 11
	I.7.1.	1; 3; 4; 5; 7; 9; 11
2.A.2. Threat II: Biodiversity loss, through - subsistence and commercial bush meat hunting, and poaching of target threatened species for the Illegal Wildlife Trade	II.1.1.	1; 2; 3; 4; 5; 7; 9
	II.1.2.	2; 3; 7; 9; 11
	II.2.1.	2; 7; 9; 11
	II.2.2.	2; 3; 4; 8; 9; 11
	II.2.3.	2; 3; 7; 9; 11
	II.2.4.	2; 4; 7; 8; 9; 11
	II.3.1.	2; 7; 8; 9; 11
	II.3.2.	2; 4; 8; 9; 11
	II.3.3.	2; 4; 8; 9; 11
	II.3.4.	1; 2; 3; 5; 7; 8; 9; 11
2.A.3. Threat III: Negative impacts of mining, and of development works and other land uses, that are incompatible to the conservation and sustainability objectives	III.1.1.	1; 2; 3; 7; 8; 9; 11
	III.1.2.	2; 4; 8; 9; 11
	III.1.3.	1; 2; 3; 4; 5; 7; 8; 9; 11
	III.1.4.	2; 3; 7; 9; 11
	III.2.1.	1; 2; 5; 8; 9; 11
	III.3.1.	1; 2; 5; 8; 9; 11

	III.4.1.	1; 2; 7; 8; 9; 11
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2.A.1. Threat I: Habitat loss, ecosystem and land degradation, and forest fragmentation, through – encroachment, unsustainable agriculture practices, logging, and unsustainable harvest of NTFPs

Target I.1. Reduce deforestation and habitat loss through unsustainable (slash and burn) food cultivation practice, to protect the forest ecosystems integrity

Strategy I.1.1. Increase awareness and build capacity among local farmers to shift to sustainable food cultivation practice.

Activity I.1.1.1. FDA, with Ministry of Agriculture and partners (local NGOs, international NGOs, donors, experts), and based on consultations with local communities - to raise awareness and build capacities of local community members (men and women) to shift to sustainable food cultivation practice (conservation farming; agro-forestry), through initial training, on-going mentoring, and provision of initial equipment and materials, as relevant.

Activity I.1.1.2. FDA, with Ministry of Agriculture and local authorities, and in consultation with local communities - to support farmers (men and women) in forming farmer associations, and to support the associations to jointly delimitate cultivation areas for food crops in the periphery of the park, including verbalization of lowlands for rice production and other vegetable production. In parallel, cultivations inside the gazette GKNP area, will be removed.

Strategy I.1.2. Build capacity and support local community members to diversify sustainable livelihood activities.

Activity I.1.2.1. FDA, with partners (local NGOs, international NGOs, donors, experts), and based on consultations with local communities - to build capacities of local community members (men and women) to shift to other sustainable alternative livelihoods, through initial training, on-going mentoring, and provision of initial equipment and material.

Target I.2. Reduce deforestation through unsustainable commercial cultivation practice (mainly cocoa), to protect the forest ecosystems integrity

Strategy I.2.1. Increase awareness and build capacity among local commercial cocoa farmers to shift to sustainable commercial cultivation practice.

Activity I.2.1.1. FDA, with Ministry of Agriculture and partners (local NGOs, international NGOs, donors, experts, Private Sector) - to raise awareness and build capacities of local commercial cocoa farmers to shift to sustainable cocoa cultivation practice, based on mainstreaming agro-forestry with inclusion of indigenous forest tree species in cocoa cultivation systems - through initial training, on-going mentoring, provision of initial equipment and material, and micro-credits system.

Activity I.2.1.2. FDA, with Ministry of Agriculture and partners - to support commercial farmers (men and women) in disseminating conservation farming practices through farmer cooperatives/conservation farming clubs, and in establishing partnerships with the Private Sector for promoting sustainable cocoa cultivation and environmental traceability, and for improving marketing of cocoa and related indigenous forest products, as well as other sustainable cultivation products.

Strategy I.2.2. *Mainstream sustainable practices and conservation of community forests in cocoa cultivation, into overall land use planning of the GKNP's surrounding area.*

Activity I.2.2.1. FDA, with line Ministries and local authorities, and in consultation with local farmers - to mainstream allocation of well-defined and mapped sites for cocoa cultivation (through agro-forestry practice), as part of the overall land-use planning of the GKNP's surrounding area.

Strategy I.2.3. *Build capacity and support local community members in developing other sustainable income sources and economic activities.*

Activity I.2.3.1. FDA, with partners (local NGOs, international NGOs, donors, experts, Private Sector), and based on consultations with local communities - to build capacities of local community members to shift to other sustainable income sources and economic activities, through initial training, on-going mentoring, provision of initial equipment and materials, and micro-credit systems, and through providing help in marketing.

Target I.3. Reduce deforestation through logging, to protect the forest ecosystems integrity

Strategy I.3.1. *Mainstreaming sustainable practices of commercial forestry concessions into overall land use planning of the GKNP's surrounding area.*

Activity I.3.1.1. FDA, with line Ministries and local authorities, and in consultation with the private sector and local communities - to mainstream allocation of well-defined and mapped sites for the logging concessions, including in community forests, and including registration of local power-chainsaw operators, as part of the overall land-use planning of the GKNP's surrounding area (and with no logging permitted within the gazette GKNP).

Activity I.3.1.2. FDA with EPA - to evaluate jointly every existing and requested logging concession, including in community forests, following submission of an Environmental and Social Impact Assessment (ESIA), on case-by-case basis and in accordance to international standards (ITTO).

Activity I.3.1.3. FDA - to monitor closely and enforce forestry rules, for improved sustainability, in all logging concessions, in accordance to international standards (ITTO), including awareness and joint enforcement with communities in community forest areas.

Activity I.3.1.4. The forestry rules and conditions for granting concessions will include restoration protocols, that are based on establishing partnerships with local

communities (with focus on women empowerment) for cultivation of forest tree species in tree nurseries, and including pilot landscape restoration best practices (e.g. enrichment planting).

Strategy I.3.2. Reducing illegal and anarchic logging

Activity I.3.2.1. FDA, with partners (local NGOs, international NGOs) - to agree with the local communities on rules of permitted logging (only outside the gazette GKNP area, and only for limited personal use), and to raise awareness accordingly.

Activity I.3.2.2. FDA, through multi-sectorial cooperation, and with communities' engagement - to enforce the law, aiming to abolish logging inside the gazette GKNP area, to significantly minimize illegal logging in the area around the Park, and to abolish illegal timber trade and cross-border traffic (including confiscation of illegal logging products and machinery, promoting prosecution and adequate penalization of culprits, and permanent deportation of any foreigner engaged in illegal logging or trafficking).

Target I.4. Reduce forest degradation through unsustainable NTFPs harvest (mainly chewing stick), to protect the forest ecosystems integrity

Strategy I.4.1. Reducing unsustainable harvest of NTFPs, and enhancing sustainable harvest and cultivation of NTFPs.

Activity I.4.1.1. FDA, with partners (local NGOs, international NGOs) - to agree with the local communities on rules of permitted sustainable harvest of NTFPs, and to raise awareness accordingly.

Activity I.4.1.2. FDA, through multi-sectorial cooperation, and with communities' engagement - to enforce the law, and promote prosecution and adequate penalization, aiming to abolish illegal harvest, trade and cross border traffic of chewing sticks and other illegally traded NTFPs (e.g. resin collected from *Daniellia ogea* and edible oil produced from Makore' (*Tieghemella heckelii*)).

Activity I.4.1.3. FDA, with partners (local NGOs, international NGOs, donors, experts, Private Sector), and based on consultations with local communities - to build capacities of local community members (men and women) for developing livelihoods that are based on sustainable use and cultivation of NTFPs. These can include, e.g.: partnerships with logging concessioners for the production of indigenous trees in nurseries for reforestation; partnerships with cocoa farmers for the production of indigenous trees in nurseries for agro-forestry; cultivation and commercialization of indigenous food and medicinal plants; thatch harvest for roofing, etc. The support can include: initial training; on-going mentoring; provision of initial equipment and materials; micro-credit systems; partnerships to support processing and marketing of products; legal protection support of local knowledge rights; and creating awareness on NTFP harvesting practices for sustainable production and management.

Target I.5. Control encroachment, to reduce threats to the forest ecosystems integrity

Strategy I.5.1. Reducing encroachment, through cooperation with local authorities, traditional leaders, and the relevant national agencies.

Activity I.5.1.1. FDA, through cooperation with the local authorities, the traditional leaders, and Line Ministries and agencies - to promote land rights registration and mapping, and to raise awareness on community land rights. Partnerships with migrant farmers can be considered by the local communities, and formally registered, accordingly.

Activity I.5.1.2. FDA - to seek cooperation of the Ministry of Interior, the Police, the army and the Border and Immigration authorities, of Liberia and Côte d'Ivoire, to control and reduce illegal migration, through the Liberia - Côte d'Ivoire border, into the GKNP area and surroundings.

Activity I.5.1.3. FDA, in cooperation with the local authorities, local communities, and partners (Local NGOs, International NGOs) - to prevent any settlements or livelihood or economic activities inside the gazette GKNP area, and to promote shift from any unsustainable activities in the Park's surroundings, to best practice sustainable livelihood and economic activities.

Target I.6. Invasive species mitigation, to enable forest ecosystems rehabilitation

Strategy I.6.1. Study and map the extent of distribution, propagation processes, and impacts on the natural habitats, of the invasive species *Chromolaena odorata*, and study and implement a mitigation programme, based on research and experience elsewhere.

Activity I.6.1.1. FDA, through partnership with specialized partners (e.g., FAO, NGOs, experts, academic institutes) - to develop and implement a dedicated project, to study and map invasive species presence in the forest ecosystems in and around the GKNP; to study and mitigate the expansion of *Chromolaena odorata*, based on existing knowledge and experience elsewhere; and to develop protocols to prevent the intentional introduction of alien invasive species (IAS).

Target I.7. Fire control, to protect the forest ecosystems integrity

Strategy I.7.1. Developing and implementation of an effective fire control plan

Activity I.7.1.1. FDA, through partnership with NGOs and experts, and based on best-practice experience in similar ecosystems elsewhere - to develop and implement an effective fire control plan in and around the GKNP, including raising awareness and collaboration with local communities, and including building rapid intervention capacity.

2.A.2. Threat II: Biodiversity loss, through - subsistence and commercial bush meat hunting, and poaching of target threatened species for the Illegal Wildlife Trade

Target II.1. Reduce and regulate subsistence bushmeat hunting, to protect biodiversity

Strategy II.1.1. Regulate and control subsistence bushmeat hunting and consumption and increase awareness among local communities

Activity II.1.1.1. FDA, with partners (local NGOs, international NGOs) - to agree with the local communities (through CLDMCs/CFCs and CBOs) on rules of restricted permitted bushmeat hunting and consumption (only outside the gazette GKNP area, only for limited personal subsistence use, only species that are not protected by law or threatened, rules re hunting methods, season, numbers, reproductive and life history stage, etc.), raise awareness accordingly, and apply law enforcement.

Strategy II.1.2. *Build capacity and support local community members in developing other sustainable alternative livelihoods and sources of protein.*

Activity II.1.2.1. FDA, with partners (local NGOs, international NGOs, donors, experts), and based on consultations with local communities (through CLDMCs/CFCs and CBOs) – to include the mainstreaming of small scale livestock husbandry, raising cane-rats, and sustainable inland fisheries, in livelihood development programmes, with local communities, through initial training, on-going mentoring, and provision of initial equipment and materials.

Activity II.1.2.2. FDA, with partners (international NGOs, specifically WCF), and based on consultations with local communities (men and women) - to provide employment opportunities to community members as Park staff, eco-guards, guides and projects staff, including recruitment, training, equipping and deployment (see details in Thematic Management Programmes 3 and 4).

Target II.2. Stop any commercial bushmeat poaching, to protect biodiversity

Strategy II.2.1. *Increase awareness at all levels, to abolish commercial bushmeat hunting and consumption.*

Activity II.2.1.1. FDA, with partners (local NGOs and CBOs, international NGOs, donors), and in collaboration with the traditional leaders (through CLDMCs/CFCs) - to raise awareness among local communities to reduce, and eventually to abolish, commercial bushmeat poaching.

Activity II.2.1.2. FDA, in cooperation with line Ministries, agencies and local authorities and with partners (local NGOs, international NGOs, donors, local media) - to develop and implement a campaign for increased awareness, aimed to abolish trade, selling and consumption of bushmeat throughout the District, the County and at national level, with focus on bushmeat marketing for city dwellers.

Activity II.2.1.3. Use of billboards and banners in strategic positions throughout the GKNP and surroundings, and in the District, County, and national levels, including border posts, seaport, airport, main junctions, markets, etc, to support the campaign to abolish trade and consumption of bushmeat.

Strategy II.2.2. *Apply law enforcement, aiming to abolish commercial bushmeat hunting, trade, and consumption.*

Activity II.2.2.1. FDA, through the confiscation unit and the multi-sectorial wildlife crime task force, and in collaboration with the Police, intelligence, local authorities - to set and implement joint operational programmes for improved investigation and

enforcement efforts, to reduce commercial bushmeat poaching and illegal trade, with focus on the main bushmeat trade networks, including building rapid intervention capacity.

Activity II.2.2.2. FDA, through the confiscation unit and the multi-sectorial wildlife crime task force, and through the transboundary law enforcement forum, TLETC, in cooperation with the Police, Army, Intelligence, Border authorities, Immigration authorities, of Liberia and Côte d'Ivoire, and the local authorities in both countries - to elaborate and implement a joint law enforcement programme, targeting the illegal cross-border bushmeat trade.

Activity II.2.2.3. FDA with Ministry of Justice, partners and thematic experts - to inform and train local prosecutors and judges to secure adequate punishment of culprits involved in the illegal bushmeat trade, including forfeiture of assets and funds and permanent deportation of any foreigner engaged in this crime.

Activity II.2.2.4. FDA, with partners (local and international NGOs, and in particular WCF), and in consultation and collaboration with the local communities and traditional authorities (through CLDMCs/CFCs and CBOs) - to recruit, train and deploy local community members to participate in law enforcement in and around the GKNP, for abolishing bushmeat poaching and trade, as Park staff, eco-guards, and informers.

Strategy II.2.3. Build capacity and support local community members in developing other sustainable protein-based income sources and economic activities, as alternative to commercial bushmeat trade.

Activity II.2.3.1. FDA, with partners (local NGOs, CBOs, international NGOs, donors, experts, Private Sector), and based on consultations with local communities (through CLDMCs/CFCs and CBOs) - to build capacities of local community members to shift to other sustainable protein-based income sources and economic activities (e.g., small livestock husbandry, cattle, raising cane-rats, fishponds, bee-keeping, etc. See more details in Thematic Management Programme 3), through initial training, on-going mentoring, provision of initial equipment and material, and micro-credit systems, and through providing help in marketing.

Strategy II.2.4. Develop and implement a study and mitigation programme, of infectious diseases threatening iconic species and humans.

Activity II.2.4.1. FDA, with the Veterinary Services and partners (NGOs, thematic experts, donors), with cross-border collaboration through the BSC, and in cooperation with local communities - to develop and implement a dedicated project for the study and mitigation of infectious diseases, threatening iconic species and humans, in the national and regional contexts, and based on relevant existing knowledge and experience elsewhere. In particular, confirm and raise awareness to the link of consumption of primates and other wildlife, to lethal epidemics among the human population.

Target II.3. Eliminate poaching and illegal wildlife trade in target species and their derivatives, to protect species threatened by trade

Strategy II.3.1. Increase awareness at all levels, to abolish illegal wildlife trade in protected species and their derivatives

Activity II.3.1.1. FDA, with partners (local NGOs, CBOs, international NGOs, donors), and in collaboration with the traditional leaders (through CLDMCs/CFCs) - to raise awareness among local communities to abolish poaching of protected species.

Activity II.3.1.2. FDA, in cooperation with line Ministries, agencies and local authorities and with partners (local NGOs, CBOs, international NGOs, donors, local media) - to develop and implement a campaign for increased awareness, aimed to abolish trade in protected species and their derivatives.

Activity II.3.1.3. Use of billboards and banners in strategic positions throughout the GKNP and surroundings, and in the District, County, and national levels, including border posts, seaport, airport, main junctions, markets, etc, to support the campaign to abolish trade in protected species and their derivatives.

Strategy II.3.2. Apply law enforcement, aiming to abolish poaching and illegal wildlife trade in protected species and their derivatives.

Activity II.3.2.1. FDA, through the confiscation unit and the multi-sectorial wildlife crime task force, and in collaboration with the Police, intelligence, local authorities - to set and implement joint operational programmes for improved investigation and enforcement efforts, to abolish illegal wildlife trade in protected species, with focus on the wildlife crime syndicates and middlemen, including building rapid intervention capacity.

Activity II.3.2.2. FDA, through the confiscation unit and the multi-sectorial wildlife crime task force, and through the transboundary law enforcement forum, TLETC, in cooperation with the Police, Army, Intelligence, Border authorities, Immigration authorities, of Liberia and Côte d'Ivoire, and the local authorities in both countries - to elaborate and implement a joint law enforcement programme, targeting the cross-border illegal wildlife trade in protected species and their derivatives.

Activity II.3.2.3. FDA with Ministry of Justice, partners and thematic experts - to inform and train local prosecutors and judges to secure adequate punishment of culprits involved in the illegal wildlife trade, including forfeiture of assets and funds, permanent deportation of any foreigner engaged in this crime, and applying deterring heavy penalization on criminals involved in trade of protected species and their derivatives.

Activity II.3.2.4. FDA, with partners (local and international NGOs, and in particular WCF), and in consultation and collaboration with the local communities and traditional authorities (through CLDMCs/CFCs and CBOs) - to recruit, train and deploy local community members to participate in law enforcement in and around the GKNP, for abolishing poaching and trade of protected species, as Park staff, eco-guards, and informers.

Strategy II.3.3. Enable rehabilitation of confiscated live wildlife

Activity II.3.3.1. FDA, through the confiscation unit, and multi-sectorial wildlife crime task force, and with partners (NGOs, thematic experts, donors) - to establish partnerships with existing best practice sanctuaries in Liberia and elsewhere in the region, to develop a strategy and protocols for the transfer of confiscated live wildlife to existing relevant sanctuaries (e.g., apes, other primates); and in relevant cases to construct rehabilitation facilities and to rehabilitate and release confiscated wildlife with expert's training and remote guidance and support (e.g., pangolins, parrots);

Strategy II.3.4. *Develop and implement a holistic Human-Wildlife-Conflict study and mitigation programme, in the GKNP's surroundings, for improved food security and for improved attitudes towards the Park and wildlife.*

Activity II.3.4.1. FDA, with partners (NGOs, thematic experts, donors), and in consultation with local communities (through CLDMCs/CFCs and CBOs) - to develop and implement a dedicated project for the study of HWC issues in the GKNP's surroundings, and to develop and implement of a holistic HWC study and mitigation programme that is based on capacitating local farmer associations, including among other components, better spatial planning of cultivations, selection of crops that are less vulnerable to HWC.

2.A.3. Threat III: Negative impacts of mining, and of development works and other land uses, that are incompatible to the conservation and sustainability objectives

Target III.1. Reduce ecosystems and land degradation through anarchic artisanal gold mining, to protect the forest ecosystems integrity

Strategy III.1.1. *Increase awareness and support to sustainable practices at all levels, to reduce and regulate artisanal gold mining and to abolish illegal mining activities*

Activity III.1.1.1. FDA, with partners (local NGOs, international NGOs, donors), and in collaboration with the traditional leaders (through CLDMCs/CFCs and CBOs) - to raise awareness among local communities to reduce and regulate artisanal gold mining and to abolish illegal activities (including the setting of agreed protocols, with restricted sites in already disturbed areas outside the GKNP, restricted best-practice methodologies, etc).

Activity III.1.1.2. FDA, in cooperation with Ministry of Mines and Energy, other line Ministries, agencies and local authorities and with partners (local NGOs, international NGOs, donors, local media) - to develop and implement a campaign for increased awareness, aimed to reduce and regulate artisanal gold mining and to abolish illegal activities.

Strategy III.1.2. *Increase law enforcement to abolish illegal mining activities*

Activity III.1.2.1. FDA, through the confiscation unit and the multi-sectorial wildlife crime task force, and in collaboration with the Ministry of Mines and Energy, the Police, intelligence, local authorities - to set and implement joint operational programmes for improved investigation and enforcement efforts, to abolish illegal

mining activities and gold trade, in and around the GKNP, including early warning to detect any incipient use of mercury, and building rapid intervention capacity.

Activity III.1.2.2. FDA, through the transboundary law enforcement sub-committee, TLETC, and in cooperation with the Ministry of Mines and Energy, Police, Army, Intelligence, Border authorities, Immigration authorities, of Liberia and Côte d'Ivoire, and the local authorities in both countries - to elaborate and implement a joint law enforcement programme, for the control of artisanal mining and trade in minerals in the trans- boundary basin of the Cavalla River.

Activity III.1.2.3. FDA with Ministry of Justice, partners and thematic experts - to inform and train local prosecutors and judges to secure adequate punishment of culprits involved in the illegal anarchic mining.

Activity III.1.2.4. FDA, with partners (local and international NGOs, and in particular WCF), and in consultation and collaboration with the local communities and traditional authorities (through CLDMCs/CFCs and CBOs) - to recruit, train and deploy local community members to participate in law enforcement in and around the GKNP, for abolishing illegal mining activities, as Park staff, eco-guards, and informers.

Strategy III.1.3. *Build capacity and support local miners in the regulation of legal artisanal mining activities, for improved sustainability and reduced negative impact.*

Activity III.1.3.1. FDA, with the Ministry of Mines and Energy and with partners (local NGOs, international NGOs, donors, thematic experts), and in consultations with local communities (through CLDMCs/CFCs and CBOs) - to establish protocols and agreements with miners of permitted and prohibited mining activities and use of materials and machinery. The agreements will aim to reduce impact and increase sustainability, as well as to improve health and safety, based on existing best-practice knowledge. The protocols will promote low-impact mining practices (e.g. gravity methods) and technologies (e.g. portable modern sluices and gravity concentration tools), and prospecting practices through modular trainings. Detailed maps of permitted artisanal mining sites will also be included, and developed as part of the zoning management planning that will be developed for the GKNP's surroundings, based on a geo-database of active mining sites and on other mapped factors of ecological sensitivity and ecological corridors.

Activity III.1.3.2. FDA, with the Ministry of Mines and Energy and with partners (local NGOs, international NGOs, donors, thematic experts), and based on consultations with local communities (through CLDMCs/CFCs and CBOs) - to register all mining activities and miners and their machinery around the GKNP, build capacities of miners to shift to sustainable best-practice (including technology transfer and demo projects), and to formalize, and license local miners complying with agreed best-practice protocols.

Activity III.1.3.3. FDA, with the Ministry of Mines and Energy - to promote collaborative models and agreements between mining companies and licensed artisanal

miners, complying with the best-practice protocols (e.g. capacity building for low-impact methodologies, purchase of mining products).

Strategy III.1.4. Build capacity and support local community members in developing other sustainable income sources and economic activities.

Activity III.1.4.1. FDA, with partners (local NGOs, international NGOs, donors, experts, Private Sector), and based on consultations with local communities (through CLDMCs/CFCs and CBOs) - to build capacities of local community members to shift to other sustainable income sources and economic activities (see more details in Thematic Management Programme 3), through initial training, on-going mentoring, provision of initial equipment and material, and micro-credit systems, and through providing help in marketing.

Target III.2. Reduce ecosystems and land degradation through mining concessions, and improve conservation mainstreaming, to protect the forest ecosystems integrity.

Strategy III.2.1. Mainstreaming mining concessions into overall land use planning of the GKNP's surrounding area.

Activity III.2.1.1. FDA, with the Ministry of Mines and Energy and local authorities, and in consultation with the private sector and local communities (through CLDMCs/CFCs and CBOs) - to mainstream allocation of well-defined and mapped sites for the mining concessions, as part of the overall land-use planning of the GKNP's surrounding area (and with no mining permitted within the gazette GKNP and in essential areas for enabling ecological connectivity).

Activity III.2.1.2. FDA with the Ministry of Mines and Energy and the EPA - to evaluate jointly every existing and requested mining concession, following submission of an Environmental and Social Impact Assessment (ESIA), on case-by-case basis and in accordance to international best-practice standards. Detailed ESIA ToRs, approval conditions and criteria, and monitoring protocols, will be set, including ecosystem rehabilitation protocols.

Activity III.2.1.3. FDA, with the Ministry of Mines and Energy - to engage with all mining and exploration companies active around the GKNP, to supervise and monitor activities, to control compliance with best-practice standards, and promote collaborative models between mining companies and artisanal miners.

Target III.3. Reduce ecosystems and land degradation through incompatible development and public works, roads, and urban expansion, and improve conservation mainstreaming, to protect the forest ecosystems integrity.

Strategy III.3.1. Mainstreaming all development and public works, roads, and urban expansion, into the overall land use planning of the GKNP's surrounding area.

Activity III.3.1.1. FDA, with the EPA, line Ministries, the local authorities, and partners (local NGOs, international NGOs, donors, thematic experts, Private sector), and in consultations with local communities - to mainstream all development and public work plans, including roads, urban centers, and sectorial developments, among others, into

the overall land use planning and management zoning plan that will be developed for the GKNP and the surrounding area.

Activity III.3.1.2. FDA with the EPA, line Ministries, the local authorities and partners, and in consultations with local communities - to evaluate every plan for development works, following submission of an Environmental and Social Impact Assessment (ESIA), on case-by-case basis and in accordance to international best-practice standards, and in accordance to the future management zoning plan. Detailed ESIA ToRs, approval conditions and criteria, and monitoring protocols, will be set, including ecosystem rehabilitation protocols, as relevant. The implementation of any approved development work will be monitored closely.

Activity III.3.1.3 FDA with the EPA, LLA, line Ministries, the local authorities and partners - to train all relevant sectors in integrated land-use planning and biodiversity conservation mainstreaming, including the prioritizing of conservation considerations in Protected Areas, sensitive ecosystems and ecological corridors.

Target III.4. Improve waste management and reduce pollution, and in particular water pollution, throughout the GKNP area and surroundings, to protect the ecosystems integrity

Strategy III.4.1. *Establish cooperation at all levels for improved waste management, sanitation, pollution prevention, and protection of water resources (specifically, mercury, chemicals related to food crops, and all other liquid and solid waste)*

Activity III.4.1.1. FDA, with the EPA, line Ministries, the local authorities, and partners (local NGOs, international NGOs, donors, thematic experts, Private sector), and in consultations with local communities - to develop and implement sensitization activities among all relevant sectors and at all levels, with special focus on local communities, for improved waste management, sanitation and protection of the water resources.

Activity III.4.1.2. FDA, with the EPA, line Ministries, the local authorities, and partners (local NGOs, international NGOs, donors, thematic experts, Private sector), and in consultations with local communities - to improve capacity for best-practice waste management and sanitation in the villages and in the urban centers, including adequate treatment of hospital waste, prevention of pollution from mining activities and development works, best-practice sanitation measures and management of household and agricultural waste, and protection of the water resources and water bodies in the GKNP and surrounding area; Implementation of water and sanitation (WASH) projects with local communities.

2.B. Thematic Management Programmes

2.B.1. Management Zoning and Land Use Plan to be developed

2.B.1.1. Introduction

Overview

Conservation of natural spaces requires a clear zoning of the space in order to develop specific strategies. This thematic programme aims at describing how the Grebo-Krahn National Park and its periphery area can be zoned and managed in order to achieve its long-term conservation goals and vision.

As agreed through the management plan validation process, this chapter will form the basis for Terms of Reference for a follow-up consultancy to develop an integrated management zoning and land use planning that is based on a participatory process. The development of the management zoning and land use planning and detailed mapping will be lead by FDA through the GKNP park staff, in collaboration with LLA and MoJ, and with the support of partners.

The consultancy's ToRs will include the participatory development and GIS mapping of an agreed Management Zoning and Land Use Map of the GKNP and its urrounding Area, including location of the Park management posts and infrastructures.

The following elements detailed here will be included in the follow-up management zoning consultancy: (a) zoning categories and a definition of the different zones according to their level of use; (b) zoning criteria; (c) a description of the requirements to maintain the boundaries of the protected area; (d) a description of the location of the infrastructure required for park management; (e) an overview of the transboundary context.

Defining zoning categories

Effective management zoning of a Protected Area, and its surroundings, include:

- (A) Core zone/s of strictly protected ecosystem/s.
- (B) Buffer zone/s – these are corridors surrounding the core area/s. Activities that are compatible with conservation considerations and enable ecological connectivity are permitted in these zones.
- (C) Transition zone/s – these are areas surrounding the buffer zones. Activities of economic and human development that are ecologically and socially sustainable and that do not compromise conservation in zones A and B, are permitted in these zones.

Zoning criteria

Key criteria for the zoning of a Protected Area, and its surroundings, include:

- (a) Ecological importance and sensitivity of each area;
- (b) Protection of a balanced representation of key habitat types in the ecosystems protected by the specific National Park;
- (c) Protection of a sufficient area size to enable sustainability and conservation of viable wildlife populations, throughout the life history of keystone species;

- (d) Protection of areas that are important for the conservation of sensitive ecosystems, or for the conservation of keystone, flagship, threatened, or endemic species;
- (e) Protection of important landscapes, or wetlands;
- (f) Protection of areas with traditional, cultural, social, or economic importance;
- (g) Protection of ecological corridors, and enabling ecological connectivity within the National Park and between it and adjacent areas;
- (h) Level and reversibility of existing and planned disturbances;
- (i) Other existing and planned land-uses, their existing and potential environmental impact, and their social, cultural, and economic importance;
- (j) Assuring sustainability and compatibility of land uses, use of natural resources, and economic development activities, withing and around the Protected Area, with the ecological and conservation considerations;
- (k) Maximizing engagement of local communities in achieving the conservation objectives of the Protected Area and in benefitting from its protection;
- (l) Avoidance and mitigation of human-wildlife-conflict.

2.B.1.2. Development of proposed zoning for the GKNP

Background

The GKNP was gazette over an area of 96,149.89 hectares, divided into two separate blocks. It is located in 2 counties: Grand Gedeh and River Gee, and 3 districts: Konobo, Glio-Twabo and Glaro, on the border with Côte d'Ivoire, forming part of the Tai-Grebo Krahn-Sapo Transboundary Forest Complex (see section 1.2.3.). The GKNP is surrounded by community areas, where the main land use is rural residence and household cultivation, with significant livelihood dependency on unsustainable extraction of fauna, flora, and other natural resources, within the National Park and in its surroundings. The populations size around the GKNP is estimated at more than 25,000 people, in about 39 settlements (see section 1.2.5.).

The combination of: (a) a large resident population, that is currently dependent to a large extent on unsustainable use of the natural resources; (b) an area with high potential for economic development through extractive activities (e.g., logging, mining, commercial cultivation); and (c) outstanding ecosystems with high ecological sensitivity and conservation importance, hosting globally iconic and highly endangered species - poses a considerable challenge. It is essential that land use planning and management zoning in the GKNP and surrounding area would prioritizes addressing both long-term conservation priorities and local social considerations, in a compatible way, through multi-sectorial collaboration at the local, national and regional levels.

Planning of the GKNP's surroundings through Land Use and Management Plans (LUMPs)

Category A area is the gazette GKNP area. Categories B and C include community lands in the peripheral area of the Park. In accordance to the Liberian legal framework (see section 1.2.2.), Category B and C areas will be zoned, demarcated, planned, and

managed, by the local communities, with FDA, LLA and partners support, through customary Land Use and Management Plans (LUMPs), following legal land formalization by the communities. These lands will be managed according to land use plans and by-laws, developed by the communities, through agreements with FDA, LLA and partners' support and will aim to mainstream biodiversity conservation and promote sustainable economic activities, to secure long-term benefits for the communities.

LUMPs (Land Use and Management Plans) will include detailed zoning, including community forests, sacred forests, settlements and areas designated for specified economic activities. Nevertheless, these plans must be compatible to enabling ecological connectivity between the two blocks of the Park and with Sapo National Park, and throughout the TGS.

For maintaining the Park's integrity, and the long-term availability of forest resources for the communities' welfare, it is essential that by-laws in category B area will enable only activities that are compatible to conservation considerations and protect ecological corridors and connectivity.

Category B will include voluntary conservation and traditional/spiritual forms of forest conservation and sustainable land management. Agreements with FDA will be developed for the mapping, management and protection of all of the sites of cultural and traditional importance (e.g., sacred forests), including clear information on the set of traditional rules, for adhering to both conservation and cultural needs, with full respect to tradition.

Activities permitted in the category C area, can be less restrictive and include a larger variety of economic activities, including settlements. Nevertheless, it is important that category C area would also enable connectivity, and that activities in this area would be ecologically and socially sustainable.

The development of detailed management zoning and land use plans will include detailed surveys and mapping of flora and fauna, and especially of iconic species; geo-referenced data on specific threats; and detailed information and maps of all existing and planned land uses, sectorial plans, infrastructures and planned development works, in the area around the GKNP.

Table 8: Management zones

Category	Description	Land use tolerated	Legal framework	Management responsibility
A – Core Zone - strict conservation Areas	The GKNP gazetted area	Strict conservation, and activities fully compatible to securing conservation	2016 Wildlife and Protected area law	FDA, in collaboration with CLDMC
B – Ecological corridors - community	Areas in the immediate surroundings of	Activities that are compatible to securing socio-	2018 Land Rights Law,	CLDMCs in collaboration with FDA/LLA

conservation and sustainable connectivity areas	the GKNP and between the two blocks, that are important to secure ecological connectivity	economic needs and ecological integrity and connectivity	2012 Community Forest law	
C – Transition zone - Sustainable development areas	Areas in the wider surroundings of the GKNP, that are important for conservation and for local communities	Sustainable development and extraction activities (activities that secure both environmental and social sustainability)	2018 Land Rights Law, 2012 Community Forest law	CLDMCs in collaboration with FDA/LLA
D – Ecologically disturbed development areas	Irreversibly disturbed areas and sites (e.g., the urban centers, large residence areas, main roads)	Mapped, limited, and demarcated areas of development, infrastructures and services	2018 Land Rights Law, 2012 Community Forest law	CLDMCs in collaboration with FDA/LLA

Proposed zoning of the GKNP and surroundings

A follow-up consultancy for the integrated development of proposed management zoning of the GKNP and its surroundings, through a participatory process, will include the following zones:

Category A: Core zone – strict conservation area - An area with maximum importance for conservation – this area is assessed as most conservation important and least ecologically disturbed. In this area, conservation considerations must be prioritized, and any activities that are not fully in line with conservation considerations, are prohibited.

The core conservation area (Category A) of the GKNP is the agreed, gazetted and demarcated area of the National Park, in two distinct blocks, covering a total area of 96,149.89 hectares. This area was agreed by all stakeholders, through an extensive process of consultations led by the FDA, with local authorities, local communities, and other key stakeholders, including baseline studies, and following some adjustments to the originally proposed area, that resulted from consultation with the local communities.

The following rules are proposed for the core conservation area:

- No human residence, extractive activities (e.g., logging, hunting, fishing, mining), or other economic activities (e.g., cultivation, community forest), can be permitted in this area;
- Areas of sustainable and controlled NTFP extraction by communities could be temporarily allocated by FDA in the core area, upon the development of specific regulations for its management, and with adequate mechanisms for their monitoring and enforcement;

- Only infrastructures and development works that are essential for the Park's operation can be done in this area, and must be subject to Environmental and Social Impact Assessments (ESIA) and licensing, on case-by-case basis;
- No hunting can be permitted in this area.
- Controlled research, biomonitoring, and education activities will be permitted and encouraged in this area, subject to licensing a on case-by-case basis;
- Controlled tourism activities with minimal and sustainable infrastructure can be permitted in this area, subject to ESIA and licensing, on case-by-case basis;
- In cases of sacred forests and other traditionally important sites that are located within the core conservation area, these sites must be clearly mapped, in accordance to customarily acceptable approaches. The traditional rules, to be communicated by the traditional leaders, will be registered and respected. However, compatibility with the Park's rules is obligatory, and Park staff must have access to the whole area of the Park. A consensus should be reached through negotiation between the FDA and the traditional leaders, and optional re-location with mutual agreement may be considered, if relevant.

Category B: Community conservation and sustainable connectivity zone/s ('buffer zone'/corridors) - Areas in the immediate surrounding of the core conservation area, and that are assessed as important for securing ecological integrity and connectivity, as well as important for local communities. Category B includes the areas that are most important for enabling ecological connectivity and wildlife movement between the two blocks of the GKNP, and in the TGS context, including connectivity between GKNP and Sapo NP included in the forest concession FMC-F. These areas are essential for ensuring long-term community access to forest resources that are important for securing local livelihoods and economies.

Category B area should include connecting areas between the two blocks of the GKNP, (excluding the most densely populated areas and the Glaro enclave) and the area in the immediate surrounding of the gazette Park area. Under the framework of the Liberia Land Rights Law of 2018, communities will be supported in the self-identification and land use planning and mapping process, leading to community land formalization, and including detailed mapping of category B and C areas, in order to ensure and enforce sustainable management and development in their lands.

Communities will be encouraged to secure ecological corridors and connectivity areas in category B area, through the LUMPs and by-laws, that will be developed, with FDA and partners' support, and excluding activities that may compromise ecological connectivity. The detailed land-use planning of these areas will prioritize both conservation and local social considerations in a compatible way, and would aim to develop sustainable livelihoods and economic activities, that are compatible with

conservation considerations, and that do not compromise the ecological connectivity across the TGS area.

Forest uses of category B areas may include, e.g, voluntary forest reserves for sustainable NTFP extraction; sacred forests in the periphery of the Park; conservation farming areas of annual crops; agroforestry (mainly cocoa cultivation with at least 40-50% canopy); swamp farming and cultivation in wetlands; and small settlements.

Specific concerns have been raised during the validation process, in regard to the Buffer Zone/s. These concerns will need to be addressed through the follow-up consultancy to be realized for the development of the GKNP management zoning and land use planning. The definition and mapping of the buffer zone/s will need to be discussed in-depth and agreed between the communities and FDA, as well as with other stakeholders.

Accordingly, it is suggested that the following guidelines would be applied by the communities to micro-zoning and by-laws of land uses in the area/s of category B:

Proposed encouraged activities (with control):

- Sacred forests and other traditionally important sites, that are located within the corridors, would be clearly mapped, in accordance to customarily acceptable approaches. The traditional rules, to be communicated by the traditional leaders, will be registered and respected, subject to agreements to be signed by the communities with FDA;
- Community forests can be partially included within the corridors in category B areas. The management plan of the community forests will be done by the CFMB (community forest management board) with FDA, and partners support, and would take into account both the communities' livelihoods and needs, and the conservation considerations to maintain ecological connectivity, in a compatible way;
- Commercial cocoa farming is possible, but it should accommodate to sustainable agroforestry practices that enables ecological connectivity with at least 40-50% shade. Any existing cocoa farming operations would aim to shift to sustainable agroforestry practice within maximum 2 years;
- Sustainable practice of swamp farming and cultivation in wetlands;
- Cultivation of indigenous plants for subsistence, as well as commercial use (e.g., tree nurseries for reforestation, food plants, plants with medicinal or cosmetic values, etc), would be encouraged and supported;
- Controlled sustainable use of Non-Timber Forest Products, including for commercial use, is encouraged;
- Human residence, essential infrastructures and development works, and house-hold or community cultivation would be developed sustainably, in a compatible way to both community needs and conservation considerations;
- Any development works would be subject to Environmental and Social Impact Assessments (ESIA) and licensing, on case-by-case basis;

- Support and capacity building for communities residing in this area will be prioritized, aiming to facilitate shift to sustainable cultivation practice, other sustainable alternative livelihoods, and holistic Human-Wildlife-Conflict mitigation. The aim would be to shift all livelihood activities in this area to sustainable activities, within maximum 4 years;
- Controlled research, biomonitoring, and education activities would be encouraged in this area. Invasive research (e.g., collection of specimens), would be subject to licensing on case-by-case basis;
- Controlled eco-tourism activities with minimal and sustainable infrastructure would be encouraged, subject to ESIA and licensing, and pending on agreements with the communities, to define and secure their rights and benefits, on case-by-case basis;

Proposed discouraged activities

- To maintain ecological integrity and connectivity, mining and logging extraction should be avoided in category B areas. In the case of existing mining or logging concessions in these areas, it is suggested that their re-allocation to alternative areas in category C and outside the Park's surroundings, would be negotiated by the communities with FDA, the relevant line Ministries, and partners' support. Until such re-allocation, it is suggested that strict control and enforcement measures would be taken to secure sustainability, and to maintain ecological connectivity.
- No hunting would be permitted in this area;

Category C: Sustainable development zone/s (transition zone/s) - Areas that are assessed as important both for conservation and for local communities, but already subject to high level of disturbance. Category C can include areas that are not critical for enabling ecological connectivity between the two blocks of the GKNP and throughout the TGS complex. However, the land use planning of category C areas should enable establishing sustainability and prevent encroachment into areas of categories A or B.

Communities will be encouraged to secure sustainability in category C area/s, through the LUMPs and by-laws, that will be developed, with FDA and partners' support. It is thus suggested that LUMPs and by-laws in category C area/s would prioritize activities of economic and human development that are both ecologically and socially sustainable.

Accordingly, it is suggested that the following guidelines would be applied by the communities to micro-zoning and by-laws of land uses in the area/s of category C:

Proposed encouraged activities (with control):

- Development works, commercial cultivation and other economic activities, including controlled extractive commercial activities, that are based on sustainable best-practice, would be enabled in category C areas, subject to ESIA and licensing, on case-by-case basis;

- Human residence, essential infrastructures and development works, and house-hold or community cultivation would be developed by the communities, through agreements with FDA, and with partner's support, in a compatible way to both community needs and conservation considerations;
- Controlled sustainable use of Non-Timber Forest Products, including for commercial use, would be encouraged;
- Cultivation of indigenous plants for subsistence and commercial use (e.g., tree nurseries for reforestation, food plants, plants with medicinal or cosmetic values, etc), would be encouraged and supported;
- Small scale subsistence hunting, fishing and logging by local residents in category C areas would be enabled in agreement with FDA rules and regulations under strict defined conditions;
- Support and capacity building for communities residing in category C areas will be provided, aiming to facilitate shift to sustainable cultivation practice, other sustainable alternative livelihoods, and holistic Human-Wildlife-Conflict mitigation. The aim would be to shift all livelihood activities in these areas to sustainable activities, within maximum 6 years;
- Controlled research, biomonitoring, and education activities would be encouraged in these areas. Invasive research (e.g., collection of specimens), would be subject to licensing on case-by-case basis;
- Controlled eco-tourism activities with sustainable infrastructure will be encouraged in this area, subject to ESIA and licensing, and pending on agreements with the communities, to secure their rights and benefits, on case-by-case basis;
- Forest concessions and community forests can be included in category C areas. The detailed management plan of the community forests will be done by the CFMB with FDA, and partners support, and would take into account both the communities' livelihoods and needs, and the conservation considerations, in a compatible and sustainable way.

Category D: Irreversibly disturbed areas and sites – Including the urban centers and large residence villages and towns, main roads, and other areas already irreversibly disturbed through infrastructures and other uses. These areas and sites must be mapped with clear geographic limits, as well as demarcated on-ground, in collaboration between the local communities, FDA, and the local authorities, with partners support, with the aim to enable their on-going functioning without expansion and encroachment into the areas of categories A, B and C. Within the existing urban centers, intensive activities that are necessary for the operation of such administrative centers, and for the provision of essential services to the whole population, can be performed. However, activities with wider impact (e.g., through pollution) over a wider area, must be avoided and controlled. Sanitation and waste management of the urban centers must be well-addressed, to prevent impact on the GKNP and its surroundings.

Boundary harmonization and zoning in the GKNP and surrounding area

The first of five management objectives defined following extensive stakeholders consultations and in the Fishtown conference declaration (2017), is: *Maintain the boundary harmonization and demarcation of the GKNP*. The boundaries of the core area, which forms the GKNP, were agreed and demarcated, following stakeholders' consultations.

The boundaries of the areas of categories B and C, surrounding the GKNP, also need to be well defined and demarcated, following extensive stakeholders' consultations, and in agreement with the national regulatory framework, through a follow-up consultancy to be focused on integrated management zoning and land use planning that is based on a participatory process.

Park management operation posts and infrastructure

The GKNP management operation posts and infrastructure will be determined through consultation with the FDA, and specifically the GKNP staff, as well as with other stakeholders. As based on the initial consultations held during the development of the GKNP management plan, these posts may include:

- (a) The GKNP Headquarters. A location was selected by FDA for the Park Headquarters, with a cornerstone situated, around 2 Km from Ziah Town, on the way to Tai in Côte d'Ivoire (N5°46'0'', W7°49'51'').
- (b) Permanent enforcement and operation posts in each of the two Park Administrative Zones.
- (c) Mobile enforcement and operation posts, with mobile structures (e.g., tented camp) – to be determined periodically, in accordance with dynamically identified enforcement and administration needs;
- (d) An operational Park staff training area with mobile structures (e.g., tented camp).
- (e) Access roads to the permanent posts and strategic sites.

Detailed mapping of the GKNP (category A) posts and infrastructures will be done by the FDA and Park staff with partners' support, and in accordance to conservation and operation considerations and international standards.

The initial plan for the GKNP's infrastructure, developed under the KFW/FDA 'Conservation of biodiversity in the Tai-Grebo-Sapo Biodiversity Complex' Project, needs to be reviewed and revised, in close consultation with the FDA, clearly mapped, and subject to detailed ESIA and licensing. Further details are provided through Thematic Management Programme 3.6. (Infrastructure and equipment programme).

2.B.1.3. The TGS Transboundary context

The GKNP is one of two Parks that form the Liberian component of the Tai-Grebo Krahn-Sapo (TGS) transboundary Forest Complex. The TGS Transboundary Steering Committee was launched in 2009 between Liberia and Côte d'Ivoire, and encompassing Sapo and Grebo-Krahn National Parks in Liberia and Tai National Park in Côte

d'Ivoire, as well as the state forest concessions of Cavalla, in Côte d'Ivoire, and FMC-F, in Liberia, and the proposed corridor along the Saro River, between the Tai National Park and the Cavalla River border. Corridors will be protected within Liberia between the GKNP and Sapo Protected Areas and between Liberia and Côte d'Ivoire. The spatial planning and management zoning of the GKNP must be done in consideration of the TGS context, in order to strengthen the ecological connectivity over the full landscape. The spatial planning and zoning of the GKNP and its periphery should be developed by the FDA and LLA, and in consultation with the OIPR, SODEFOR (Société de Développement Forestier/Forest Development Corporation), the Ivorian Ministry of Forests and Wildlife, and other key stakeholders of the Ivorian component of the TGS, through the joint consultative forums (as detailed in the Transboundary Cooperation Programme), and through expertise exchange. Geo-referenced information from the whole TGS area on habitat types, species distribution, threats, human activities, etc, needs to be mapped onto one map of the TGS, and habitat connectivity, species distribution, and linked threats (e.g., illegal cross-border traffic of wild flora and fauna), assessed. The management zoning of the GKNP can be further planned in accordance to the transboundary context information, and in particular as related to collaborative Park operation, threats mitigation, and enabling ecological connectivity.

2.B.1.4. Way forward

Target 1.1. Detailed development, GIS mapping, and implementation of the management zoning and land use spatial plan of the GKNP, through a follow-up consultancy, based on a participatory process.

Activity 1.1.1. Through a follow-up consultancy - map and increase the knowledgebase to enable a more informed and detailed zoning and spatial planning, including: detailed mapping of vegetation types, threats, and forest degradation; wildlife surveys of relative abundance, distribution and movement of wildlife species, with focus on iconic and endangered species; compile and map detailed information on existing and planned land uses; establish a framework for the identification and mapping of sacred forests and community forest reserves.

Activity 1.1.2. Support customary land formalization processes in the periphery of the park, mainstreaming conservation practices in land use planning. As a part of the process, the park, with partners, will provide technical assistance to communities for the development, zoning and mapping of participatory land-use and management plans (LUMPs) in their community lands – identifying and establishing areas of management categories B and C in the periphery of the GKNP, and defining existing and proposed land uses, in accordance to the proposed guidelines above.

Activity 1.1.3. Joint training of community leaders, FDA officials, local government and representatives of all key stakeholders, in collaboration with the Liberia Lands Authority (LLA), in integrated land-use planning; sustainability of land and natural resources use; and landscape restoration best practices.

Activity 1.1.4. The FDA and LLA, in consultation with clan conservation and development committees, and stakeholders at all levels, and through the PAMAC, the different clan authorities and forest governance bodies within each community - to develop detailed by-laws and regulations of activities and land-uses that can and cannot be realized in each management zone category, and with detailed conditions.

Activity 1.1.5. Initiate a process to establish partnerships, promote dedicated projects, and mobilize technical and financial support and incentives (e.g., conservation agreements, access to carbon markets, ecotourism, private sector alliances, certification schemes, etc), to enhance sustainable land-use management, conservation, and land restoration, with shift to best-practice cultivation and other sustainable livelihoods, including relevant skill building, and the development and implementation of a holistic Human-Wildlife-Conflict mitigation strategy.

Activity 1.1.6. Support self-identification, land formalization land use planning and mapping, and management of customary lands in categories B and C areas around the GKNP, including sacred forests and sustainable use forest reserves.

Activity 1.1.7. Maintenance of the boundary line and clear demarcation between the gazette Park (category A) area and the community lands in categories B and C areas, in the periphery of the Park.

Activity 1.1.8. FDA, in collaboration with the concession holders and technical partners, to elaborate a management plan, including a clear zoning plan and mapping for the FMC-F concession and the community forests in in categories B and C areas, in the periphery of the Park, to ensure sustainable extraction and consideration of biodiversity conservation.

Activity 1.1.9. Collaborate with Côte d'Ivoire, in knowledge sharing, experience exchange, and coordinated land-use planning and mapping, for securing ecological connectivity throughout the TGS complex.

2.B.2. Stakeholders' Engagement and Co-management Programme

2.B. 2.1. Introduction

Stakeholders' engagement and close coordination and collaboration of the FDA, and in particular of the GKNP staff, with stakeholders at the local, County, District, National and cross-border levels, is essential for the successful participatory development and implementation of the GKNP management plan and each of its individual components. The fifth of five management objectives, defined following extensive stakeholders consultations and approved in the Fishtown conference declaration (2017), is: *Involve all relevant stakeholders in collaborative management and monitoring of the GKNP.*

An initial consultation process with stakeholders at all levels, led by the FDA, was realized as a basis for the GKNP's gazettelement. The development of this management plan has also been realized following a participatory consultation process with stakeholders.

Establishing mechanisms to ensure on-going consultation and collaboration with stakeholders at all levels, including authorities, other law-enforcement agencies and technical partners of the FDA, and with special focus on establishing forums and governance rules with local communities in accordance to traditional and customary practices, would be critical for effectivity in achieving the GKNP's management objectives, through the dynamic development and implementation of the GKNP management, on co-management basis.

The National Wildlife Conservation and Protected Area Management Law of Liberia prescribes the establishment of a Protected Area Management Advisory Committee (PAMAC) in all Protected Areas to ensure multi-stakeholder engagement. The PAMAC will be established as the management board for decision-making and to oversee the GKNP's management.

At the local level, consultation and management decisions concerning the Park (category A zone) and community lands in zone categories B and C, are made in collaboration with the Community Land Management and Development Committees (CLMDCs) established at the community level according to the Liberia Land Rights Law of 2018 who are the legally recognized entities competent for the management of customary forestlands.. When communities have not gone through the process of formalizing their customary lands and in the absence of CLMDCs - communities may elect interim clan or chiefdom Forest Committees (CFCs), integrating representatives elected at the level of each village at a clan or any other level that ensures appropriate representation for co-management of the Park, and its surrounding area, in collaboration with the FDA and district authorities.

While community forests are managed by Community Forest Management Boards (CFMBs), community forests included in the areas of categories B and C would be integrated into the same consultation process of other land uses in these areas, to ensure adherence to the conservation and connectivity objectives.

The detailed structure and Terms of Reference of the PAMACs, CLMDCs or CFCs, and possibly additional consultation forums for securing the representation of all key stakeholders, including the local communities, in the Park's co-management and decision-making, will be further developed by FDA with the communities and stakeholders.

This thematic programme provides an outline of essential activities for ensuring the effective establishment and implementation of a co-management framework in the GKNP.

The implementation of the GKNP's management plan, the thematic programmes, and individual activities, depends to a large extent on financial and technical support and interventions of partners (including international NGOs, local NGOs and CBOs, aid agencies, donors, and the private sector).

As stressed by FDA during the validation process, the implementation of the Stakeholders' Engagement and Co-management Programme (2.B.2) will be closely linked to, and coordinated with, the implementation of the Communication, Visibility, Awareness and Education Programme (2.B.7).

Community Land Development and Management Committees (CLMDCs):

The function of CLMDCs is to manage customary lands in self-recognized communities, including forest lands and natural resources. These include protected area issues, mining issues, trans-boundary issues, land issues, forestry issues, and concessions. CMDCs shall be established following an inclusive process and include an assembly of all clans and communities. These committees are under the traditional rule and customs of the community and are chaired by the clans headmen – with representation of men, women and youth of each of the nine clans of the Grebo-Krahn National Park, representing the self-identified families.

In order to facilitate mediation and dialogue, each community clan group may identify community mediators, including adult men, women and youth, to ensure coordination and communication with the Park managers and partners. They will lead, in consultation with the FDA, the development of forestry, conservation, awareness and other projects in the GKNP's surroundings, including the community forests (e.g., the recruitment of eco-guards, livelihoods, boundary lines maintenance, conflict resolution, law enforcement, etc).

In the absence of CLMDCs, communities will be supported to organize interim forest management committees at a chiefdom or clan level.

Protected Area Management Advisory Committee (PAMAC):

The Protected Area Management Advisory Committee (PAMAC) sets targets, and validates strategies and activities for achieving the agreed GKNP's management objectives, and thereby its vision and goals. It is also a forum to discuss potential conflicts between economic, social and conservation considerations, or between stakeholders, and seek agreed solutions. The PAMAC can establish specific

commissions or sub-committees to address specific issues (i.e. mining, law enforcement).

A Disease Control Plan

As agreed through the GKNP management plan validation process, the Stakeholders' Engagement and Co-management Programme will include a Disease Control Plan to be developed, based on the One Health concept. 'One Health' is a collaborative, multisectoral, and transdisciplinary approach—working at the local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment.³¹ The disease control plan will address, through a participatory process with stakeholders, the needs to control and mitigate human, wildlife and environmental health aspects.

Gender aspects

Community representation would have to be gender sensitive.

³¹ E.g.,
<https://www.bing.com/search?q=one+health&cvid=dbd3fa758e254213bc12c70f273e965d&aqs=edge.0.0l9.3657j0j1&FORM=ANAB01&PC=ASTS>

2.2. Stakeholders' analysis (from chapter 1.2.8.)

Stakeholders' Category	Category definition	Stakeholders
A	Stakeholders that lead the GKNP and surroundings co-management planning and implementation	<ul style="list-style-type: none"> • FDA; • Park staff; • PAMAC; • County Authorities; • District Authorities; • Community management and development committees • Community traditional leaders
B	Stakeholders that must be consulted and participate actively in the land-use planning, management planning, decision-making and implementation	<ul style="list-style-type: none"> • Line Ministries and Agencies (Agriculture; Liberia Lands Authority; Environmental Protection Agency; Interior; Infrastructure and public works; Water; Mine and Energy; Transport; Social Affairs; Health; Education; Defense; Tourism; Justice; Finance); • OIPR (the main Counterpart in Côte d'Ivoire); • Transboundary joint security committee • WCF • Local resource users (e.g., miners, farmers, fishers, hunters, herbalists/traditional healers, etc)
C	Stakeholders that have to be consulted and engaged in the management planning, implementation, and evaluation	<ul style="list-style-type: none"> • Local NGOs, CBOs and CSOs (LISUPED, CENFOR, SCNL); • International NGOs and donors (GIZ, KfW, FFI, IDH, World Bank, EU, USAID-WABICC, MAP, AHT,); • Private sector: logging, mining, agriculture, cocoa trade; constructions and development works; • Additional Ivorian counterparts (e.g., Forestry Ministry, border authorities); • Traditional Council;
D	Stakeholders that would be good to consult in the process of management planning, implementation, and evaluation	<ul style="list-style-type: none"> • Religious authorities; • Further potential partner organizations and donors; • The Liberian Parliament; • Academic and research institutes; • Regional forestry networks • Individual experts and researchers;
E	Stakeholders that do not need to be consulted but need to be informed	<ul style="list-style-type: none"> • The general public • Potential visitors/tourists • Journalists – national and international • Press union of Liberia • Community radio stations

2.B.3. Way forward

Ensuring multi-sectorial collaboration

Target 2.1.: Establishing a functional framework for the co-management of the Grebo-Krahn National Park, through collaboration of the FDA with line Ministries, and the District and County authorities, for ensuring collaborative planning and implementation of effective conservation and management of the GKNP.

Activity 2.1.1 The FDA to establish a Protected Area Management Advisory Committee (PAMAC) with representation of line ministries, county and district authorities, communities, and traditional authorities and partners and agree on terms of reference for its functioning.

Activity 2.1.2. In the framework of the PAMAC, the FDA to establish cooperation agreements and joint protocols of sectorial collaboration, with line Ministries, the County and District Authorities and partners for ensuring information sharing, and integrated management of the GKNP (i.e, law enforcement, mining, land use planning) These protocols shall account all the sectorial land-uses, land-use plans, and sectorial considerations, and will prioritize securing conditions to achieve the conservation and socio-economic objectives, through sustainable management and effective protection.

Activity 2.1.3. Joint training of relevant officials with partners and donors, for skill-building in specific sectorial areas (i.e. law enforcement, integrated land-use planning, etc).

Ensuring engagement and participation of local communities in co-management

Target 2.2.: Ensuring the participation of local communities and their traditional leadership in the effective planning and implementation of the GKNP co-management and conservation, and of sustainable management and use of the natural resources in the GKNP's surroundings, for achieving the defined management objectives, goals and vision.

Activity 2.2.1. Support communities to establish Community Land Development and Management Committees (CLDMCs) according to the according to the land formalization framework provided by the Land Rights law to work in direct dialogue with the FDA, for the co-management of the Park and manage its surrounding area. Communities who have not yet started their land formalization process may establish ad-hoc CFCs as interim governance bodies for the park. These entities will include men, women and youth, elected by the communities, that would serve as liaison between the FDA, the traditional leadership, and the community, in supporting the Park management, and conflict resolution at the clan level.

Activity 2.2.2. Support capacity building of the CLDMCs or CFCs members in selecting the adequate level, structure and composition, that will be endorsed to represent them in the PAMAC; support the communities to establish CLDMCs or CFCs that are accountable to the clan traditional ruling structures; support capacity building for the development of regulations and bylaws, and co-management agreements with FDA, and that are consistent with Park regulations and contain protocols for collaboration; facilitate clan level meetings.

Activity 2.2.3. Communities in collaboration with the FDA - to develop clear and detailed protocols of activities that are permitted and prohibited within zones B and C (the exact geographical limits will be defined through the management zoning process). Co-management agreements will be signed with clan communities for law enforcement, subsidiary activities (i.e. patrolling, law enforcement, etc), and detailed conditions of

activities in zones B and C, including conditions, and the actors that are permitted to perform each activity (e.g., certain activities will be permitted only to registered community members within the specific zone, to avoid encroachment from outside. This will include e.g., the detailed regulation of mining and commercial cultivation activities, among others).

Consultation and collaboration with further stakeholders

Target 2.3. Improving effectiveness of the GKNP co-management planning, development and implementation, for achieving its defined management objectives, goals and vision, through extending consultation and collaboration with further relevant stakeholders, and through mobilizing partners and donors.

Activity 2.3.1. FDA to develop mechanisms and protocols for the inclusion of all essential stakeholders in consultations for cooperation in the on-going development, implementation, and monitoring of the GKNP management plan, including among others, the private sector, local NGOs and CBOs, international NGOs, academic institutes, researchers and experts, religious authorities, parliament, and potential donors.

Activity 2.3.2. FDA to develop an integrated strategy and annual workplans for the implementation of the GKNP management plan, the thematic programmes, and individual activities, through strategic guidance and integration of all partners' inputs. The annual workplans will be adopted in Annual board meetings of the PAMAC.

Transboundary collaboration

Target 2.4. Ensuring coordination, collaboration and exchange among the countries sharing the TGS complex – Liberia and Côte d'Ivoire, in enabling ecological connectivity, and in achieving jointly the TGS's objectives and vision. (This aspect is also addressed through the Transboundary Cooperation Programme.

Activity 2.4.1. Include consultation with the TGS bilateral steering committee and technical sub-committees in the development of the GKNP's management plan;

Activity 2.4.2. Engage the OIPR and other Ivorian counterparts (e.g., line ministries, border authorities) in knowledge and experience exchange and in consultations, in the development, implementation and monitoring, of the GKNP's management plan;

Activity 2.4.3. Develop and implement a joint TGS transboundary strategy for achieving the TGS' objectives and vision.

2.B.3. Sustainable Livelihoods and Local Development Programme

2.B.3.1. Introduction

The development of a livelihood strategy for local communities residing in the GKNP's surroundings, is an essential part of the GKNP's management plan, for achieving its defined management objectives, goals and vision, and for enabling co-management that enhances engagement of the local communities in the Park's management and conservation, and their benefitting from shift to sustainable best practices. Furthermore, section 5.9.2. of the National Wildlife Conservation and Protected Area Management Law of Liberia requires that a Protected Area's management plan will include reference to "development of economic opportunities within and adjacent to the protected area in terms of the integrated development plan framework". The third of five management objectives, defined following extensive stakeholders consultations and, in the Fishtown conference declaration (2017), is: *Enhance community empowerment and benefits around the GKNP.*

A livelihoods and local development programme will be developed jointly by the FDA and the local communities, with the support of other line ministries, the district and county authorities, and technical partners including the private sector, local NGOs and CBOs, international NGOs and donors, in consultations with the PAMAC, the CLDMCs or CFCs, and with the engagement of further stakeholders.

As described in Thematic Programme 2.B.1., Communities will be supported to elaborate local development and land use plans to guide sustainable development in their community areas, and specific by-laws and regulations to define their engagement in conservation and the management of natural resources in the periphery of the Park. The plans will aim to enable all resident communities in the Park's periphery to shift to sustainable best practices, and to benefit from engagement in the sustainable management and conservation of the Park and its surroundings.

2.B.3.2. Communities sustainable livelihoods and local economic development opportunities

The detailed sustainable livelihood plan for communities residing around the GKNP will address the key drivers of poverty and resource degradation in communities around the GKNP and will aim to ensure fair benefit sharing for the communities, and opportunities to engage in conservation.

The plan will specifically address - (a) the unsustainable use of land, forest and mineral resources; (b) the lack of food self-sufficiency and food security; (c) the lack of income generating options besides the extraction of forest products; (d) the low level of access to basic social services, including, e.g., schools, roads, and health services.

Interventions of support to the communities include:

(a) *Enhancing access to basic services and contributing to social wellbeing:* These activities would have to be addressed through collaboration with other relevant governmental sectors (health, education, public works, mine and energy, water, social affairs, agriculture, etc), with county and district authorities, and with relevant development partners, aid agencies and NGOs, dealing with these aspects. These activities will include, among others:

- Development of essential social infrastructures and services, to enhance social wellbeing of the communities residing in the Park's periphery, through cooperation with relevant line ministries and departments, and with partners and donors, for addressing critical community needs;
- Cooperation with the ministry of education and partners in improving and extending education opportunities for local community members, at all levels;
- Cooperation with the ministries of health and education to secure adequate incentives for service providers (e.g., nurses, teachers) to support service provision to the communities around the GKNP;
- Support vocational education, skill building and search of job opportunities for local community members, and with special focus on women and youth;
- Secure that employment opportunities and service provision would be gender sensitive.
- Enable community access to essential park facilities (e.g., running water).

(b) *Strengthening local livelihoods and food security:*

This support will be provided by the FDA in consultation with the communities and through partnership with relevant partners, aid agencies, NGOs and the private sector. Each livelihood development project will essentially include the provision of a related capacity building plan – including short term training and longer-term mentoring and follow up, as well as related equipment and materials, as needed. In general, considering the importance of both subsistence and commercial agriculture to most communities, as well as the significant negative impact of unsustainable cultivation, priority would normally be given to capacity building for the development of sustainable best practice cultivation practice (agroforestry and conservation farming). The need to replace hunting with alternative protein and income generating activities, as well as interventions enhancing sustainable use and cultivation of NTFP, should also be prioritized, across the landscape. Support to the development and implementation of a holistic approach to Human-Wildlife-Conflict mitigation is also essential.

These activities will include, among others:

- Capacity building and training for shift of cultivation methodologies to sustainable best practice, including:

- Sustainable production of food crops (e.g., lowland rice, agriculture, agroforestry, climate smart agriculture);
- Adopting best practice zero deforestation, agro-forestry and conservation farming methodologies of cash crops, with international certification standards (including e.g., sustainable commercial cocoa cultivation in zone B and C, and encouraging lowland agriculture);
- Support in the development of opportunities to enhance market access of communities and enhance organization of local agricultural and natural resources based enterprises, including support to the marketing and transportation of products, that will be branded for supporting conservation;
- Support partnerships and capacity building for developing alternative livelihoods (including further development of existing NGO supported projects, such as bee-keeping; aquaculture/fish ponds; vegetable gardens; husbandry of small ruminants and poultry; cane rats, etc);
- All alternative livelihood support projects and initiatives must be combined with intensive training and close follow-up (including, e.g., the development of handbooks, manuals, demonstration plots, etc), for enabling success, and for monitoring and deriving lessons learned, as well as provision of essential facilities, equipment and materials;
- Support to the development and implementation of a holistic approach to Human-Wildlife-Conflict mitigation;
- Support the establishing of farmer associations/cooperatives for implementing joint sustainable cultivation and marketing initiatives;
- Support local enterprise development, and development of Community Schemes Ombud Services (CSOs) and Fixed-Based Operators (FBOs), and enhance their access to funding opportunities, including the GEF (Global Environment Fund) small grants programme;
- Seek partnerships for micro-credit and small grant projects, that are combined with training and close follow-up for farmer associations and small businesses;
- Secure that employment opportunities and training would be gender sensitive.

Some actions shall specifically target the sustainable access of natural resources to communities, in particular:

- Development of protocols and control mechanisms, and training, for enabling the sustainable harvest and domestication of Non-Timber Forest Products;

- Capacity building and training for artisanal miners and mining leaders to shift to sustainable and low-impact best practice, in accordance to agreed protocols and subject to licensing, in zone C (including e.g., apply health and safety measures; abolish use of mercury and all chemicals in mining and curtail water pollution; land restoration plans through pilot projects; backfilling as a requirement for the renewal of licenses; support the formalization of local mining community enterprises; etc.), in cooperation with MME and the private sector;
- Capacity building for the cultivation and commercialization of indigenous plants, (including tree nurseries for deforestation, cultivation of food plants, cultivation and processing of medicinal and cosmetic plants, etc);
- Support for legal protection of the use of traditional local knowledge in the identification, cultivation, use or processing of the plants;

(c) Participation of community members in the GKNP management and conservation: FDA, through partnerships with conservation NGOs, aid agencies and donors, would aim to create permanent job opportunities for community members to participate in the GKNP's workforce. This will include the establishing of an eco-guards system, that is an integral part of the Park management personnel. Eco-guards (men and women) should be recruited from each community, trained, equipped, and deployed. To enable sustainability, the budget for the eco-guards employment should be guaranteed in advance for at least 10 years ahead, and preferably allocated as a permanent budget of the Government, with committed permanent partner and donor support, preferably including strengthening the partnership with WCF, and integration of the current WCF eco-guards in the Park's workforce. In addition, while the recruitment of regular Park rangers and staff must be strictly in accordance to detailed Terms of Reference and required qualifications, priority should be given to adequately skilled members of the local communities surrounding the Park, over other candidates. Moreover, FDA will support community enterprises to provide the auxiliary services to the park (e.g., road and boundary maintenance). Furthermore, benefit sharing agreements will be signed between the FDA and the communities to secure their benefitting from grants and enhanced infrastructure and services, with the FDA mediation.

Detailed opportunities for community participation in park management may include, among others:

- Prioritize local community members (men and women) in the recruitment of Park rangers and staff, though subject to detailed ToRs and qualification requirements of each position;
- Establish eco-guards system, integrated into the FDA Park staff, and through partners support (e.g., WCF), with the recruitment, training and deployment of men and women from all communities as eco-guards, including

integration of the eco-guards currently employed by WCF (see Thematic Management Programme 4);

- Engage local community members in auxiliary tasks related to park management activities (e.g., boundary line maintenance; regular road, infrastructures and equipment maintenance; etc);
- Establish community self-help projects for road rehabilitation and maintenance, plantation sanitation, farm labour, etc;
- Encourage NGOs, the private sector and other partners, of all sectors, operating in the Park's surroundings, to recruit, train and employ local community members from the Park's periphery;
- Secure that employment would be gender sensitive.

2.B.3.3. Way forward

Target 3.1. Enabling engagement of communities residing around the GKNP in the Park's management and conservation, and in benefitting from sustainable livelihood options and local economic development opportunities, that enhance achieving both the social and conservation goals of the Park, in a compatible way.

Activity 3.1.1. FDA with the CLMDCs and with partners (local NGOs and CBOs, international NGOs, and donors) - to develop specific livelihood plans, for best adaptation of livelihood options, based on the priorities of each community, and provide related support and capacity building.

Activity 3.1.2. FDA with existing partners (local NGOs and CBOs, international NGOs and donors, the private sector), and through extending further partnerships - to support the shift of communities to sustainable natural resources management and livelihoods and related capacity building, by developing sustainable and improved cultivation best practice; other sustainable alternative livelihoods; holistic HWC mitigation; sustainable harvesting and use of NTFPs; marketing of sustainably produced products; and support in establishing farmer associations/cooperatives; and in developing education and skill building programmes, and in seeking job opportunities, as detailed above;

Activity 3.1.3. FDA, with partners' support - to create permanent job opportunities for community members (men and women) to participate in the GKNP's workforce, as detailed above – including, e.g., integration of an eco-guards system in the Parks workforce; prioritization of local community members in park and project staff recruitments; engagement of community enterprises in providing auxiliary services to the park; and enhancing benefit sharing agreements to secure communities' benefits from grants and improved infrastructure and services, with the FDA mediation.

Activity 3.1.4. In the long-term, and pending on the feasibility of developing eco-tourism in the GKNP, train and engage community members in eco-tourism guiding and other tourism management activities, in cooperation with the Ministry of Tourism and with the private sector.

2.B.4. Law Enforcement Programme

2.B.4.1. Introduction

The main threats to the integrity of the GKNP and its ecosystems and biodiversity, are related to illegal activities, including, e.g., poaching and illegal wildlife trade, illegal logging and uncontrolled harvest of plants (mainly, chewing sticks), illegal mining, and illegal cocoa cultivation (see the threats analysis in chapter 1.2.9). Developing adequate and effective legal, law enforcement and judicial capacity is therefore a major component for enabling the conservation and sustainable management of the GKNP, its ecosystems, and its surroundings, and for protecting endangered species, that are subject to illegal activities. Effective law enforcement is key to the conservation of the GKNP's ecological and cultural values, and therefore, is also central among the Park rangers' activities. The second of five management objectives, defined following extensive stakeholders consultations and, in the Fishtown conference declaration (2017), is: *Abolish all illegal activities in and around the GKNP*. A detailed, inclusive, integrated, effective, and dynamically adapted law enforcement programme for the GKNP, is an essential component for achieving its goals and vision.

Moreover, to a large extent, the illegal activities, threatening the GKNP and its biodiversity, are of transboundary nature, and related to illegal cross-border traffic. Therefore, transboundary cooperation, mainly but not only, with Côte d'Ivoire, must be included as a centerpiece element in the GKNP's law enforcement programme.

2.B.4.2. Outline for the GKNP law enforcement programme

The GKNP law enforcement programme will be based on the following considerations:

1. The GKNP staff will be complemented, with the recruitment of additional rangers, and other staff members, and with the integration of eco-guards into the Park staff, as detailed in Thematic Management Plan 2.B.10.
2. Effective law enforcement requires compiling and analyzing of data on wildlife crime in this area, as well as wider information on wildlife crime in Liberia and on cross-border trafficking. A digitized detailed wildlife crime database needs to be created, by the FDA, in collaboration with WCF, FFI, and other technical partners, the Police, and the wildlife crime multi-sectorial cooperation forum, for the analysis and characterization of wildlife crime that is identified as related to the GKNP. The following criteria will be used for the characterization of wildlife crime:
 - (a) General crime type: bushmeat poaching, poaching of target species, illegal logging, illegal chewing stick or other plant harvesting, illegal mining, illegal fishing, illegal cocoa or other commercial cultivations, in-country commercialization of illegal products, cross-border trafficking, deliberate fire, etc;
 - (b) Actors involved: including, local community members, poachers/loggers/miners from elsewhere in Liberia, foreigners (where

from), middlemen, any information on networks/syndicates involved, customers (restaurants, companies, individuals, cross-border networks), etc. Detailed information on every actor identified must be compiled, including number of people involved in each case;

- (c) Species involved;
 - (d) Methods used;
 - (e) Crime objective: subsistence bushmeat, bushmeat trade, pet trade, trade in ivory, pangolin scales, timber, gold, chewing sticks, etc;
 - (f) Quantity category: subsistence small quantity, small scale commercial, large scale commercial, network/syndicate scale;
 - (g) Geographic location (site name/vicinity to, coordinates and mapping);
3. The engagement of eco-guards, or Community Watch Teams, and with the help of technical partners (WCF, FFI, and possibly others), in geo-referenced data collection (using, e.g., SMART or similar methodologies) data collection, should be a key component in developing the database for the GKNP.
 4. The GKNP staff in collaboration with the Police, partners and experts, to conduct a survey of wildlife crime products trade and consumption in the markets, restaurants, hotels, roadsides, airport, seaport, border posts, and other strategically identified sites.
 5. Through partners and donors support, training should be provided to the GKNP staff and eco-guards, for the collection of geo-referenced data, as well as equipment provided for this purpose. Dedicated permanent staff should be trained and deployed to perform on-going maintenance of the data base and data analysis, and control the data distribution, as relevant.
 6. Training for the GKNP staff and eco-guards must include human rights training, among other key aspects.
 7. Multi-sectorial cooperation forum for combating wildlife crime at the national level, was established by the FDA with relevant national sectors, led by the FDA's Confiscation Unit. Based on the national multi-sectorial forum, a multi-sectorial cooperation platform for combating wildlife will be established for the GKNP. Collaboration accords and detailed joint operations protocols should be developed between the GKNP rangers and the national enforcement agencies (Police, Army, Border authorities, Customs, Immigration, Intelligence services, etc, and the Judiciary sector), at the local, District and County levels, for collaboration in wildlife crime enforcement efforts, including coordination with the local communities and traditional leadership, in the GKNP and its surroundings.
 8. An effective informant network for intelligence gathering on wildlife crime will be established, based on the abovementioned multi-sectorial cooperation

platform for the GKNP, as well as on coordination with the local communities and traditional leadership.

9. The Transboundary Law Enforcement Technical Committee (TLETC) for transboundary collaboration in the TGS Forest Complex between Liberia and Côte d'Ivoire was established in 2018 with WCF and USAID support and with the participation of line ministries and agencies (forest management, environment, internal affairs, justice), international and national NGOs, sub-regional initiatives (e.g, Economic Community of West African States – ECOWAS), and representatives of local populations in both countries.

The transboundary law enforcement action plan includes the following elements:

- (a) Establishment of a legal and institutional framework for the preservation and management of natural resources in the TGKS complex;
 - (b) Creation of a framework for collaboration between the protected areas management agencies of both countries in the law enforcement framework;
 - (c) Capacity building of the protected area management agencies;
 - (d) Awareness raising and popularization of the laws related to natural resources conservation among local populations, and independent monitoring;
 - (e) Creation of a framework for collaboration between local NGOs and local populations within the framework of independent monitoring.
10. Based on the bilateral action plan, and with the TLETC as a temporary consultation forum, specific law enforcement collaboration accord and operations protocols should be developed and implemented, for collaboration in improving wildlife crime enforcement effectivity throughout the TGS landscape, with focus on joint capacity building, knowledge and data sharing, and investigation and enforcement of cross-border traffic, and joint security and enforcement operations.
 11. The FDA, together with the communities, through the CFCs, and with the help of local NGOs and CBOs, will elaborate collaboration accords and by-laws, with clearly defined guidelines and action for enhancing cooperation in the protection of the GKNP. These by-laws can include the delegation of judicial and punishment authority to the traditional leaders, in the case of participation of community members in moderate wildlife crime cases (subsistence only, in small quantities, and not involving protected species). Such by-laws would be very detailed with agreed conditions, punishment margins to be applied in each case, with details re species, quantities, purpose, etc, as well as agreed protocols for reporting to the FDA and for the FDA's monitoring in collaboration with the traditional leaders.
 12. The accords between the FDA and the local communities will include detailed Terms of Reference and required qualifications for the recruitment, training,

equipping, and employment of eco-guards, men and women, that will be selected by the CFCs, from each clan, and preferably from each village, and that will be integrated as an integral part of the Park management personnel, with partners' support. To enable sustainability, the budget for the eco-guards employment should be guaranteed in advance for at least 10 years ahead, and preferably allocated as a permanent budget of the Government, with committed permanent donor support. The eco-guards system's establishment, training and equipping, can be done through the existing partnership with WCF, and include deployment by FDA of voluntary eco-guards that were recruited by the WCF. However, this system has to be strengthened and become part of the permanent Park's force. The eco-guards will thus work with the Park rangers and report to the Park Zone Wardens, under detailed Terms of Reference, that will clearly define their roles within the overall Park staff complement. See more details in Thematic Management Programme 2.B.10.

13. In addition, honorary rangers will be nominated among the local traditional leaders, and among the District and County officials, local NGOs, and other key stakeholders. The honorary rangers will be assigned specific liaison, informing and intelligence roles.
14. The accords between the FDA and the local communities will also include specific protocols and incentives for the involvement of CFCs in the Park management and in law enforcement, including liaison, advocacy and informing roles. As prescribed by the Forestry Reformed law 2006, the CFCs will be empowered to arrest and fine offenders.
15. Collaboration accords should be signed with all private sector operators, that are operating within and around the GKNP, (e.g., FMC-F, cocoa buyers, licensed miners), clearly defining their responsibilities to prevent the engagement of their staff at all levels, in any illegal activities, and defining action to be taken against the company in such cases.
16. Until the recruitment of the full Park staff complement, as an interim solution, law enforcement by the current Park staff will be strengthened through cooperation with rangers from adjacent Parks (mainly Sapo NP), as well as through agreements and joint operation with the National Police, the army, intelligence, border authorities and other enforcement agencies. In addition, cooperation with NGOs and partners and the integration of the WCF eco-guards in the Park's operation, will be strengthened, as an interim phase toward their full integration as Park staff.
17. Awareness activities and training, at the local level, of prosecutors and judges, about wildlife crime, at the National, County, and District levels, is essential to secure adequate punishment of culprits, including forfeiture of assets and funds and permanent deportation of any foreigner engaged in poaching or illegal wildlife trade.

18. The GKNP Chief Warden and staff will develop and implement protocols for the performance of patrols (including routine foot and motorized patrols, joint security patrols coordinated with the a multi-sectorial cooperation platform, patrols with eco-guards, special operations and patrols, etc) in and around the GKNP, as an important tool of control and enforcement; protocols for the operation of the permanent posts; protocols for the setting and operation of the mobile posts (with focus on main junctions, main roads, formal and informal border posts, and other strategic locations); and protocols for on-going training of the staff. These protocols must be dynamic, and adapted frequently to accumulating information and changing enforcement needs.
19. Park staff will be trained and equipped, in collaboration with WCF and FFI, and potentially with other partners, in georeferenced data collection, reporting, and analysis, through the use of SMART and possibly additional systems and applications (e.g., ODK).
20. The GKNP Chief Warden and staff, in collaboration with the Confiscation Unit at the FDA, the Police and other relevant agencies, will develop and implement operational programmes, for the identification and application of enforcement action on wildlife crime in markets, roadsides, restaurants, hotels, border posts, local air strips, and other trafficking strategic sites, at the local, District and County levels. Enforcement action at this level will be based mostly on intelligence.
21. The GKNP Chief Warden and staff, with the Confiscation Unit at the FDA, and partners, will establish protocols for the disposition, best treatment, and as far as possible, rehabilitation and release, of confiscated live wildlife, including cooperation with existing wildlife sanctuaries and rehabilitation projects in Liberia, and regionally, and training of GKNP and FDA staff in immediate action of confiscation, care and transfer.

2.B.4.3. Way forward

Target 4.1. Implement effective law enforcement as a key tool for achieving the GKNP's goals and vision

Activity 4.1.1. Develop and implement a detailed strategic law enforcement plan, that is based to a large extent on multi-sectorial collaboration, with focus on close collaboration with the local communities, as well as on cross-border coordination, and that enables applying effective law enforcement action, with the elements detailed in the outline for the GKNP law enforcement programme, above. The law enforcement plan will include (a) analysis and development of a database of wildlife crime in the area; (b) establishing accords and by-laws with communities for collaboration in law enforcement; (c) develop and implement specific protocols for the law enforcement, surveillance, patrols, monitoring, and policing of the park; (d) multi-sectorial and cross-border collaboration; (e) recruitment, training, equipping and deployment of Park staff

complement, including the integration of community eco-guards into the permanent Park's workforce; (f) raising awareness and training of local prosecutors and judges.

2.B.5. Biomonitoring and Research Programme

2.B.5.1. Introduction

The baseline studies realized prior to and following the gazettelement of the GKNP, and in preparation for the elaboration of the GKNP management plan, provide excellent baseline information on essential aspects for the GKNP's management. A biomonitoring and research plan will be developed to identify and complement essential knowledge gaps, research needed, and on-going bio-monitoring requirements, for enabling continuously improved management of the GKNP.

2.B.5.2. Outline for the GKNP biomonitoring and research programme

The GKNP's biomonitoring and research programme will include the following activities, among others:

1. Compiling all existing knowledge base, identifying key knowledge gaps, research needed, and on-going bio-monitoring requirements, and developing biomonitoring and research plans to complement the identified needs, for enabling on-going informed planning of the GKNP management.
2. Periodic biomonitoring required, includes among key elements:
 - (a) Detailed mapping of habitat types and vegetation cover;
 - (b) Detailed mapping and quantifying of identified threats;
 - (c) Periodic mapping of forest cover and deforestation, based on remote sensing;
 - (d) Periodic surveys of flora and fauna – including plants, invertebrates, fish, amphibians, reptiles, birds, small mammals, large and medium-sized mammals;
 - (e) Periodic surveys of invasive species (e.g., *Chromolaena odorata*);
 - (f) Deployment of trap cameras, to survey mainly large and medium-sized mammals;
 - (g) Periodic recce census of iconic large mammal species– chimpanzee, pigmy hippopotamus, and forest elephant, (possibly, as well as e.g., western red colobus, black and white colobus, and Diana monkey) – to estimate population size, perform Population and Habitat Viability Analysis, map distribution and movement, identify and quantify key threats, study and identify mortality causes, and define dynamic change of conservation needs.
3. The GKNP staff and community eco-guards and honorary rangers should be trained and equipped to realize geo-referenced data collection on wildlife observations and spoor, as well as on HWC incidents, identified infractions, and threats.

4. Specifically, the Park staff and eco-guards will be engaged in on-going detailed and geo-referenced data collection on infractions - poaching, illegal logging and plant harvest, illegal mining, traffic (including identification of in-country and cross-border routes, markets and destinations), and detailed information on actors involved throughout the trade chain, and on enforcement cases processing. Data analysis, maintenance and distribution control will be done centrally at the FDA regional office or national headquarters, with partners' support.
5. Local community members will be trained and engaged in any research, study and data collection programme, within and around the GKNP, as part of the agreements to be developed between the FDA and the CFCs and will be included as obligatory in agreements with all relevant Project partners.
6. An in-depth study of HWC, should be realized as a basis for developing a holistic HWC mitigation plan.
7. Periodic socio-economic and livelihood surveys should be performed, to follow the dynamics of the socio-economic parameters, evaluate progress, and identify gaps and requirements, in achieving the GKNP sustainability and socio-economic objectives.
8. The Limits of Acceptable Change (LAC) approach can help mainstreaming conservation considerations into integrated land-use planning, by setting quantified minimally acceptable conditions, that environmental conditions cannot be allowed to deteriorate below them. Baseline studies and periodical monitoring of ecosystems and species status in the GKNP, can help set the LAC. Nevertheless, a conservative approach must be used, to avoid irreversible ecosystems' degradation.

2.B.5.3. Way forward

Target 5.1. Identify and complement essential knowledge gaps, research needed, and on-going bio-monitoring requirements, for improved management of the GKNP, aimed at achieving its defined goals and vision.

Activity 5.1.1. Develop and implement a detailed biomonitoring and research plan, to complement key identified knowledge gaps, research needed, and on-going bio-monitoring requirements, to improve the management of the GKNP, including the elements detailed in the outline for the GKNP biomonitoring and research programme, above.

2.B.6. Infrastructure and Equipment Programme

2.B.6.1. Introduction

The infrastructure and equipment programme provides guidance for the installing of infrastructure and equipment that is essential for the effective operation of the Park staff, for the construction of infrastructures and facilities to serve the communities' essential needs around the Park, and for the effective implementation of the GKNP management plan. The infrastructure and equipment programme serves as a basis for planning the construction, installment, rehabilitation, and maintenance of infrastructure and facilities, and for the procurement and maintenance of equipment, that would effectively enable achieving the GKNP's management objectives, goals and vision, for both biodiversity conservation and socio-economic sustainable development, in a compatible way. The fourth of five management objectives, defined following extensive stakeholders consultations and, in the Fishtown conference declaration (2017), is: *Develop adequate infrastructure in and around the GKNP*.

The basic guidance provided through the initial outline presented here, is based on initial consultations with stakeholders and documentation review, as well as on experience of operational protected areas elsewhere. It would have to be followed by the developing of detailed plans for the installment of essential infrastructures and procurement of equipment, based on consultation with the Park staff and on further extensive consultations of the FDA with the PAMAC and all key stakeholders, including the local communities, local authorities, line ministries, development partners and donors, and relevant thematic experts.

Moreover, it is essential that any infrastructure constructions within and around the Park, will be preceded by detailed Environmental and Social Impact Assessment (ESIA), and subject to legal licensing.

An initial infrastructure plan for the Park was developed by GIZ/KfW. This plan needs to be reviewed and revised, following consultations with key stakeholders, and with the engagement of relevant thematic experts.

2.B.6.2. Outline for the GKNP infrastructure and equipment programme

Essential infrastructure required for enabling the Park's effective operation:

- Headquarters: a Headquarters complex should be constructed, as the main operational base of the GKNP. A location was selected with a cornerstone situated, around 2 Km from Ziah Town, on the way to Tempo and Tai, in Côte d'Ivoire . The location seems adequate, as it is on the fringes of the Park and the forest, in a good distance from a major urban administrative center (close enough, and not too close). The headquarters constructions should include: furnished and equipped comfortable accommodation of 60 park staff and visitors (FDA officials, researchers, consultants, trainers, etc) at any time; headquarters staff office; reception office; concentration hut that can sit 60 people; kitchen; refectory; storeroom; a parking area for park vehicles.

- Accommodation of Park staff families: it is suggested that permanent accommodation for families of park staff members who were recruited from outside the area surrounding the GKNP (up to 20 houses), as well as temporary accommodation for visiting families and Park visitors (up to 20 houses), will be installed within or next to Ziah Town. It is suggested that families should not be accommodated within the Park's Headquarters, as such an arrangement can have significant negative implications on the rangers' security and exposure and their capacity to perform their tasks effectively, as well as on the families' security, well-being and access to essential services (e.g., hospital, school), among other potential negative environmental and social impacts.
- Zone posts: permanent enforcement and operation posts should be constructed in each of the two Park Administrative Zones. The permanent posts constructions will include: furnished and equipped comfortable accommodation of 6 park staff and visitors at any time; office; kitchen and dining room; storeroom; a parking area for park vehicles. The Zone posts should be installed in strategic positions for Park administration and law enforcement, near the roads surrounding the Park.
- Facilities: facilities required in the Headquarters base and in each administrative Zone post, include: solar panels; emergency generator; borehole; water pump; water treatment system; water tanks; water pipes; sewerage system; waste disposal facility.
- Access: access dirt roads should be constructed/rehabilitated and maintained, to the Park's Headquarters, Zone posts, and strategic locations, in cooperation with the County and District authorities and with road rehabilitation projects of development partners.
- Signage: information boards should be installed in main Park entries; direction instructions, posts, park rules, educational/awareness boards, and awareness billboards should be installed in the roads, junctions and urban centers, around the GKNP and in the main roads leading to the GKNP from Monrovia and from Côte d'Ivoire.
- Locally operated markets will be established in the Park administrative zones.
- Designated areas for sports (e.g., football field) will be established in the Park administrative zones.
- ESIA's: all constructions works must be preceded by ESIA's, legally licensed, and constructed with close follow-up and control, to secure minimized impacts.
- Maintenance: a detailed maintenance plan of the installed Park's infrastructures, constructions and roads, will be developed and integrated into the day-to-day tasks of the Park staff.
- Constructions in the GKNP will be done by licensed companies, through employment of local community members in all construction works, and under

the oversight of a joint monitoring team, comprised of FDA, local communities representation, and partners.

Essential equipment required for enabling the Park's effective operation:

- Fully equipped 4 tented mobile posts, each, to enable camping accommodation of 6 park staff and visitors at any time.
- Fully equipped tented mobile training post, to enable accommodation of 5 trainers and 30 trainees at any time.
- First aid equipment and material in the GKNP Headquarters and in each administrative Zone post.
- Communication equipment: establish radio communication network throughout the GKNP area; at least 1 mobile radio device for every 2 Park rangers and for every 4 eco-guards; a radio device for every Park car; at least two satellite phones at Headquarters, and one in each administrative Zone post, for patrols; one satellite wireless dish at Headquarters, with internet access programme.
- Vehicles: at least 2 4X4 vehicles for the Headquarters, and 1 for each administrative Zone; at least 4 motorbikes for the Headquarters and 2 for each administrative Zone; 1 Emergency fuel station at the GKNP Headquarters (tank and management system).
- Office equipment: computers, printer/scanner/copy machines, projectors, laptops, to be provided to Park offices in accordance to staff functions.
- Personal kits for rangers and eco-guards, including: full uniform sets (at least 2 for each person); binoculars, compass, GPS, pocket cameras, tablets or smartphones with georeferenced data collection applications, handcuffs, etc.
- Arms: arming of rangers will be done in accordance to the national policies.
- Procurement: a procurement plan will be prepared annually, and implemented by the FDA, and through collaboration with partners and donors.
- Maintenance: a detailed maintenance plan of the procured Park and individual equipment, will be developed and integrated into the day-to-day tasks of the Park staff.

Essential infrastructure and services for the communities around the Park:

- A detailed survey with clear priorities and GIS mapping of essential infrastructure, roads, and services needs for the communities (e.g., boreholes, sewage systems, schools, etc), will be conducted, through cooperation with local NGOs and CBOs and in consultation with the traditional leadership. The survey will be integrated with the overall GKNP management zoning and spatial planning. Building and infrastructure needs – staff quarters, visitor centre, zonal posts;
- The FDA will collaborate with all relevant line ministries and agencies, with the County and District authorities, and with partners and donors, in addressing the

essential needs identified, in accordance with priorities indicated. Any construction works will be preceded by ESIA's and legal licensing;

- Support the basic maintenance of critical roads for the Park management. Addressing the communities' request to close the road constructed within the north of the Park, and to replace it with a road connecting the communities around the north of the Park, will be given a special priority.
- Support maintenance of the Park's boundary line demarcation and beacons.

2.B.6.3. Way forward

Target 6.1. Install the basic infrastructure required to enable the effective operation of the GKNP's management.

Activity 6.1.1. Identify, plan and implement, rehabilitation, construction, installing and maintenance of infrastructure required for enabling the operationally effective implementation of the GKNP management plan, in accordance with the above outline for the GKNP infrastructure, and through cooperation of the FDA with partners and donors, and with the engagement of relevant thematic experts and the private sector.

Target 6.2. Install the basic equipment required to enable the effective operation of the GKNP's management.

Activity 6.2.1 Identify, plan and implement procurement, installing, deployment, and maintenance of equipment required for enabling the operationally effective implementation of the GKNP management plan, in accordance with the above outline for the GKNP equipment, and through cooperation of the FDA with partners and donors, and with the engagement of relevant thematic experts and the private sector.

Target 6.3. Install the essential infrastructures and services required for the communities' well-being and for enabling their engagement in the Park management and in sustainable livelihoods.

Activity 6.3.1 The FDA to Identify, prioritize, and map, through extensive consultations with the local communities, and with the help of local NGOs and CBOs and the local authorities, essential infrastructure and services needs for the communities; and collaborate with relevant line ministries and agencies, County and District authorities, and partners and donors, in addressing the essential needs identified.

2.B.7. Communication, Visibility, Awareness and Education Programme

2.B.7.1. Introduction

The elaboration and implementation of a strategic communication, visibility, awareness and education programme, is essential to facilitate the GKNP's management plan implementation and for achieving the GKNP's agreed management objectives, goals and vision. Activities related to communication, awareness and education should form an integral part of the day-to-day operation of the Park staff, and form an essential component of partners' inputs.

As stressed by FDA during the validation process, the implementation of the Communication, Visibility, Awareness and Education Programme (2.B.7) will be closely linked to, and coordinated with, the implementation of the Stakeholders' Engagement and Co-management Programme (2.B.2).

The Communication, Visibility, Awareness and Education Programme and the Stakeholders' Engagement and Co-management Programme will be coordinated through the FDA, the communities and partners, especially for securing local communities' full participation in the Park conservation and sustainable management, through providing them with education, sensitization and awareness, identifying training needs and providing the required training packages, as will be identified.

2.B.7.2. Outline for the GKNP communication, visibility, awareness and education programme

Objectives:

The GKNP communication, visibility, awareness and education programme will aim to achieve the following objectives:

1. Communities and local stakeholders understand and appreciate the biodiversity values of the GKNP and their value for intrinsic conservation;
2. The management system, legal and policy frameworks, and local bylaws governing the park, are well understood by all stakeholders and socially endorsed by local communities;
3. A grievance mechanism to address concerns on the GKNP management and conflicts is in place;
4. A strategy for behavioural change among resident communities, concerning biodiversity management in village activities (agriculture, forest management, etc) are supported through trainings, communication and outreach.
5. A public perception against wildlife crime and illegal activities is solidified at all levels (including local communities, legislators and decision makers, regional and national authorities, the judiciary and all enforcement-related agencies, all other stakeholders, and the general public at all levels, and at cross-border and international levels), and wildlife crime is perceived as a threat to

local, national and global development, health, security and stability, and an exploitative activity.

6. Environmental and conservation aspects, and the GKNP and TGS conservation importance, are introduced into the education systems at the local, regional and national levels.
7. Private sector operators, NGOs, aid agencies and other entities active around the GKNP area are aware of their environmental and social responsibilities, and engage actively.
8. The Grebo-Krahn National Park is visible and well known nationally and internationally and its global relevance as a haven for biodiversity enabling transboundary connectivity, is recognized.

Awareness, sensitization and education

1. Define clear and detailed objectives of education and sensitization, required to facilitate the implementation of the GKNP's management plan, and to support achieving the GKNP's defined management objectives, goals and vision.
2. Define key issues and subjects to be main target of the education and sensitization activities.
3. Define target groups that have to be educated and sensitized on the defined subjects.
4. Develop detailed education and sensitization long-term, medium-term and short-term programmes, to address the specific defined objectives and issues, as relevant for the each target group.
5. Education and sensitization activities can include, among others:

(a) Collaboration with the Ministry of Education, in the introduction of general environment, biodiversity conservation and sustainable management aspects, into the national education curricula; and, collaboration with County and District education departments, in the introduction of specific issues related to biodiversity, threats, conservation, and management, in the context of the GKNP complex, into local education programmes;

Target group: schoolchildren.

(b) Collaboration with local NGOs CBOs and CSOs in developing and implementing informal environmental education frameworks for children in communities around the GKNP, and in the County and District levels;

Target group: children in local communities.

(c) The GKNP staff and eco-guardians, with the FDA guidance, and in collaboration with NGOs and CBOs, to develop and implement an intensive sensitization programme on key conservation issues, for community members residing around the GKNP;

Target group: community members; traditional leaders; local resource users (e.g., miners, farmers, fishers, hunters, herbalists/traditional healers, etc); local NGOs, CBOs and CSOs.

- (d) Sensitization, by the GKNP staff, with the FDA guidance, of private sector operators and staff, of all sectors operating within and around the GKNP area, about environmental and social responsibility requirements, the obligation of environmental and social impact assessments and prevention, relevant environmental and wildlife-related legislation, and specifically about preventing the engagement of their staff in wildlife crime activities, including buying or consuming wildlife crime products;

Target group: private sector operators and staff.

- (e) Sensitization of specific target sectors about key relevant aspects (e.g., sensitization of restaurants and guesthouses and vendors to avoid trade and consumption of bushmeat; sensitization of logging, mining, and agricultural companies about sustainable practice and the relevant legislation; etc);

Target group: specified target sectors.

- (f) Specific sensitization and training activities, by the FDA and GKNP staff, for decision-makers and legislators, at the County, District and local levels;

Target group: decision-makers and legislators.

- (g) Sensitization and education of the armed forces, the police, border authorities, customs, judiciary, and other relevant sectors, at the national, County, District and local levels;

Target group: law-enforcement agencies and judiciary.

- (h) The FDA with partners to lead an extensive bushmeat campaign, aimed to abolish illegal hunting and bush-meat consumption at local, provincial and national levels, with focus on turning the consumption of bushmeat in cities, by people who have ample alternatives, to socially unacceptable. The campaign will also include information on the health hazards related to bushmeat consumption.

Target group: the general public and specific target groups at all levels; journalists (e.g., the Press union of Liberia; community radio stations).

Public communication and visibility

1. Define clear and detailed objectives for communication, advocacy and visibility, required to facilitate the implementation of the GKNP's management plan, and to support achieving the GKNP's defined management objectives, goals and vision.
2. Define key issues and subjects to be main target of the communication and visibility plan.

3. Define specific target groups.
4. Develop specific communication, advocacy and visibility programmes, to address the defined objectives and issues, for the defined target groups.
5. The communication and visibility activities, can include, among others:
 - (a) Advocacy of the GKNP and of its goals and vision, to the general public, and distribution of information about the GKNP's staff activities, specific projects, etc;
Target group: the general public.
 - (b) Distribution of information about the GKNP ecosystems, species, conservation importance, communities, social and cultural aspects;
Target group: the general public and specific target groups at all levels.
 - (c) Advocacy, at national, County, District and local levels, of conservation measures that should be taken, and of activities that must be avoided, for enabling conservation, including advocacy support for a campaign to abolish illegal hunting and bushmeat consumption, including the health hazards of this practice;
Target group: local communities and authorities.
 - (d) Advocacy for the protection of specific iconic species and that are endangered and subject to illegal wildlife trade (e.g, chimpanzee, pigmy hippopotamus, forest elephant, pangolins, African grey parrot, etc);
Target group: the general public and specific target groups at all levels.
 - (e) Distribution of information regarding relevant legislation and protected species;
Target group: local communities, the general public and specific target groups at all levels.
 - (f) National and international advocacy of the GKNP as a potential tourism destination;
Target group: the general public at national and international levels.
 - (g) Advocacy for mobilizing partnerships and support, and recognition of support received;
Target group: the general public at national and international levels, and specified potential partners.
 - (h) Preparation of a trimestral Park information bulletin, to provide up-to-date information on the GKNP. Hard copies will be available to the public in the Park headquarters, Zone offices, the County and District offices, and the FDA headquarters, and a digital version will be available on the web and social media.

Target group: the general public at national and international levels.

6. The GKNP communication and visibility tool-kit can include, among other components:
- (a) Elaboration and distribution of brochures and leaflets;
 - (b) Use of the mass media channels (newspapers, journals, TV and radio channels, etc), locally, nationally, regionally and internationally;
 - (c) Creating and managing a dedicated GKNP website, or as part of a website of the FDA;
 - (d) Setting billboards/visibility signages and banners about key conservation issues, with strong visual message, in strategic positions, in and around the GKNP area (e.g., in the urban centers, main roads and key junctions, border posts, etc), as well as at national level (e.g., Monrovia airport);
 - (e) Signages with Park rules information along the GKNP boundary lines; Caution signages for drivers in the GKNP periphery, to observe speed and reduce horn noises;
 - (f) Opening and managing GKNP social media accounts, or as part of FDA's accounts (facebook, instagram, twitter, etc);
 - (g) Elaboration and distribution of articles, reports, and scientific papers, in national, regional and international publications;
 - (h) Participation of FDA and GKNP staff and key partners (including local NGOs and CBOs and local community members), in advocacy forums and meetings, in national, regional and international forums;
 - (i) Branding of commercial products of sustainable practices (e.g., sustainably cultivated cocoa, cultivated NTFPs, etc), for their contribution to sustainable development and conservation.
 - (j) Mobile cinema for the villages with wildlife and conservation-related programmes

2.B.7.3. Way forward

Target 7.1. Implement an awareness, sensitization and education programme, as an essential tool for achieving the GKNP's management objectives, goals and vision

Activity 7.1.1. The FDA with partners to develop and implement a detailed awareness and education programme, to support achieving the GKNP objectives, based on the above outline for awareness, sensitization and education.

Target 7.2. Implement an effective communication and visibility programme, as an important tool for achieving the GKNP's management objectives, goals and vision

Activity 7.2.1. The FDA with partners to develop and implement a detailed communication, visibility and advocacy programme, to support achieving the GKNP objectives, based on the above outline for communication and visibility.

2.B.8. Transboundary Cooperation Programme

2.B.8.1. Introduction

The elaboration of the management plan for the GKNP is supported as a part of an activity of the GIZ/TGS-FL transboundary project: *Strengthening ecological connectivity in the Tai-Grebo Krahn-Sapo (TGS) Forest Complex between Côte d'Ivoire and Liberia.*

The GKNP was gazette in 2017 along the border of Liberia with Côte d'Ivoire , as one of two National Parks forming the Liberian component of the Tai-Grebo Krahn-Sapo Forest Complex (TGS), between Liberia and Côte d'Ivoire , containing some of the last remains of Upper Guinean rainforest ecosystem in West Africa. The TGS Forest Complex is composed on the GKNP and Sapo National Park (SNP) in Liberia, Tai National Park (TNP) in Côte d'Ivoire , and the surrounding multi-use areas, including classified forests (CF) Cavalla, Goin-Débé and Haute-Dodo in Côte d'Ivoire the forest concession FMC-F, and community forests, in Liberia, as well as residence and cultivation areas.

These national parks, classified forests and forest concession form a complex of ecosystems of high conservation value and are of particular important for the survival of rare, endemic or endangered flora and fauna species.

The TGS cross-border collaboration initiative was launched in 2009. A Bilateral Steering Committee of the two Governments, for this initiative, has been meeting regularly since 2013, with partners' support. The leading agencies of the transboundary collaboration are the FDA in Liberia and OIPR (Ivorian Office for Parks and Reserves) at the Ministry of Environment and Sustainable Development (MINEDD) in Côte d'Ivoire . Apart from its biodiversity value, the conservation of this complex is also essential to ensure the sustainability of ecosystem services on which many rural livelihoods depend.

All anthropogenic pressures and threats identified in the GKNP, prevail throughout the TGS Forest Complex area in both countries. Some of the main threats are of transboundary nature. A main transboundary threat is forest degradation and fragmentation, caused by unsustainable exploitation of its natural resources and agricultural activities, with impact significantly increased through illegal cross-border immigration. Another major threat of transboundary nature is the illegal cross-border trade in wild flora and fauna, and in other illegally obtained products.

The TGS cross-border collaboration, and in particular joint management planning, implementation and monitoring, is a centerpiece tool in addressing the identified threats and in achieving the conservation and social goals of each individual Protected Area within the complex.

It is suggested that an integrated and holistic strategic plan will be developed for the management of the TGS as one forest complex, with detailed areas of bilateral coordination and collaboration. Such a strategic plan would provide the basic

framework for the management of each individual Protected Area, forest concession, community forest, and multi-use area, in a collaborative way, within the context of the overall transboundary complex. Thereby, a transboundary strategic plan would enable improved management of each Protected Area, as well as strengthen the ecological connectivity, and stakeholders' engagement and capacities, at the transboundary level.

2.B.8.2. Outline for transboundary cooperation and for the GKNP's management in the context of the TGS transboundary complex

FDA and OIPR will elaborate jointly, with partners and relevant thematic experts support, through multi-stakeholders consultation, a transboundary strategic plan for the TGS Forest Complex. A detailed strategic plan that would be adopted by both countries, would serve as the basis for the TGS joint planning, management and implementation in the cross-border context, with focus on strengthening connectivity through cross-border collaboration. Each individual Protected Area's management plan, including the GKNP, will include adaptation to the transboundary context, as would be detailed in the TGS transboundary strategic plan.

The TGS transboundary strategic plan will include the following components, among others:

- (a) Develop a transboundary legal framework and memorandum of understanding (MoU) to be signed between Liberia and Ivory Coast and implemented, for sustainable transboundary coordination and collaboration in the management of the TGS and of the individual Protected Areas (Tai, Grebo-Krahn and Sapo National Parks) and in particular for collaboration in the management of the two neighbouring parks – Tai NP and GKNP;
- (b) Defining agreed vision, goals and management objectives for the full TGS complex;
- (c) Strengthening mechanisms for enabling day-to-day cross-border communication and information and knowledge exchange (including information and intelligence exchange for cross-border cooperative law enforcement);
- (d) Detailed ecological connectivity feasibility assessment of the whole TGS Forest Complex area, a SWOT analysis of the TGS, and detailed action plan for strengthening the ecological connectivity between the two countries and between the three National Parks;
- (e) Joint detailed spatial and land use planning of the TGS area, integrating plans of both countries, and with focus on securing ecological connectivity throughout the TGS Forest complex area, while enabling compatible and sustainable economic local development;
- (f) Detailed assessment of the legal and policy frameworks of both countries, and their harmonization by joint teams and relevant thematic experts, to facilitate cross-border coordination and collaborative action, including harmonizing

adequate penalization. The harmonization of policies and laws is imperative, taking into consideration that economic differences between the countries, language barriers, and different policies and laws, were identified as the main obstacles to the transboundary cooperation;

- (g) Legislation harmonization will include establishing effective and facilitated mechanisms for bi-lateral legal aid, and will be followed by joint or coordinated training of judiciary (prosecutors, judges);
- (h) Detailed analysis of stakeholders and of co-management structures of both countries, and developing detailed protocols for co-management institutional structures, at the local, national and bilateral levels, with agreed terms of reference, through extensive consultations. A transboundary institutional structure should be formalized, based on the existing TGS Bilateral Steering Committee for Transboundary Collaboration, and including both bilateral decision-making and technical forums. The signing of TGS treaty and the establishing of a TGS transboundary executive secretariat, should be enhanced, and cross border engagement of stakeholders and decision-makers increased;
- (i) Establish collaboration between the two countries, in enhancing communities' sustainable practice and livelihoods and local economic development opportunities, including the developing of joint sustainable economic projects and marketing plans;
- (j) Assessing feasibility and elaborating a cross-border tourism development plan, including mobilization of private-public-partnerships;
- (k) Detailed joint law enforcement collaboration accords and operations protocols, for collaboration in improving wildlife crime enforcement effectivity throughout the TGS landscape, based on the existing bilateral law-enforcement action plan, with the TLETC as permanent consultation forum, and with focus on joint capacity building, knowledge and data sharing, joint investigation and enforcement of cross-border traffic, coordinated inspection in border posts and in strategic positions along the border, and specific joint law enforcement operations and patrols. Cross-border cooperation in combatting cross-border illegal wildlife trade, including bush-meat, chewing sticks, live animals, and other illegal products, is imperative;
- (l) Cross-border cooperation in establishing mechanisms for the engagement of local communities in combatting wildlife crime and cross-border illegal wildlife trade, including the recruitment, equipping, joint training and coordinated operation of community eco-guard units, integrated into the respective national authorities;
- (m) Cross-border cooperation in identification and response to additional transboundary threats to the integrity of the park (e.g., encroachment, demand for land by foreigners, foreigners involvement in hunting, mining, and other

illegal activities, etc), through strengthening multi-sectorial multi-agency cross-border cooperation, and through the TLETC;

- (n) Detailed programme for bilateral harmonization and cooperation in the advocacy and visibility of the TGS, and of awareness and education programmes;
- (o) Detailed joint capacity and skill building needs analysis, among responsible officials and key co-management stakeholders in both countries, for strengthening the TGS Forest Complex's collaborative management and conservation, followed by the elaboration and implementation of a detailed capacity building programme for the TGS, with special focus on knowledge and experience exchange, and on joint and coordinated training programmes;
- (p) The joint capacity building programme will also include specifically joint training of the Park staff from both countries and for forming joint enforcement coordination;
- (q) Detailed programme for research and biomonitoring throughout the TGS landscape, with special focus on periodic monitoring of ecological connectivity parameters and on joint research initiatives, to address key identified knowledge gaps;
- (r) The transboundary strategic plan should include a general estimated budget for its implementation, and a financial plan, aimed at achieving long-term financial sustainability;
- (s) The engagement of a third party as a coordination facilitator should be considered. This role can be delegated, in agreement of the two countries, e.g. to an NGO (e.g., WCF), or a consortium of NGOs and aid agencies, that are already active in the TGS landscape, in both countries.

2.B.8.3. Way forward

Target 8.1. Elaborate and implement a transboundary strategic plan for the TGS, and adapt the GKNP's management plan, for its harmonization with the transboundary plan, aiming to achieve the GKNP's goals and vision, within the overall TGS Forest Complex's goals, and with focus on strengthening connectivity.

Activity 8.1.1. The FDA, through the TGS Bilateral Steering Committee, to enhance the elaboration of a transboundary strategic plan for the TGS, with partners' support, and the engagement of relevant thematic experts;

Activity 8.1.2. Harmonize the GKNP Management Plan with the transboundary strategic plan that will be elaborated, with focus on strengthening connectivity throughout the TGS landscape;

Activity 8.1.3. Until the elaboration of the transboundary strategic plan, immediate measures should be taken to enhance cross-border cooperation in identification and response to transboundary threats to the integrity of the park and in law enforcement,

including strengthening of the multi-sectorial multi-agency cross-border cooperation, through the TLETC, and including developing and implementing protocols for joint monitoring and patrols (e.g., along the Cavalla River), among other law enforcement activities, as detailed above;

Activity 8.1.4. Establish mechanisms to facilitate regular exchanges between the Tai and Grebo-Krahn National park (FDA/OIPR, PAMAC/Conseil de Gestion, CFC/Comites de Gestion Local) for knowledge and information exchange, and joint/coordinated capacity building and training;

2.B.9. Capacity Building Programme

2.B.9.1. Introduction

The elaboration and implementation of a strategic capacity and skill building programme, for the GKNP staff, other relevant FDA officials, and key co-management stakeholders, is essential to enable the GKNP's management plan implementation and to achieving the GKNP's agreed management objectives, goals and vision.

2.B.9.2. Outline for a capacity building programme

A detailed capacity building programme for the GKNP's management, will include the following components, among others:

1. Define clear and detailed objectives and capacity and skill building requirements, for the implementation of the GKNP management plan and thematic management programmes.
2. Define accordingly key issues and themes for capacity building activities, for each target group, and through consultation with the respective target group.
3. Define specific stakeholders target groups to receive training on each specifically defined themes, for achieving the specific objectives (e.g, Park rangers, other national and local officials, cooperating law enforcement agencies, decision makers and legislators, community members, other co-management partners).
4. Develop specific long-term, medium-term and short-term capacity and skill building and training programmes, to address the defined objectives, on the selected themes, and for the defined target groups.
5. Specific capacity and skill building and training programmes can include, among other activities:
 - (a) Provide basic Park ranger courses to all current staff and Park rangers and eco-guardians to be recruited among the communities around the park. The courses will be provided at the Liberia Forestry Training Institute. The establishing of a training center within the TGS area will be considered through the transboundary forum. In addition, periodic refresher courses, and ad-hoc advanced and thematic courses will be provided to Park staff;
 - (b) Establish further partnerships with other park management schools in the region, for exchange-based training of trainers and expanding curricula.
 - (c) Designate a training area within the GKNP, with mobile facilities (tented camp), for alternating on-going realization of refresher training of the Park staff and eco-guardians, with permanent trainer/s to be integrated in the Park staff complement;
 - (d) Training, in collaboration with relevant partners, of local community members for building capacity to engage in best practice sustainable cultivation practice (agro-forestry, conservation farming), and other

identified sustainable livelihood opportunities, including training in the marketing and business aspects;

- (e) Joint training for all the PAMAC participants, training for Park staff and relevant FDA officials, and training for traditional leaders and the Community Park Management Committees members, on relevant aspects of governance, decision-making, participatory approach, conflict resolution, etc.
- (f) Training for relevant FDA staff and other relevant national (e.g., LLA, EPA) and local (County, District) officials, in integrated spatial and land-use planning and biodiversity conservation mainstreaming;
- (g) Training for Park staff, eco-guards, local NGOs and CBOs and other community members, participation in research, biomonitoring projects, including geo-referenced data collection;
- (h) Training for local teachers, journalists and local NGOs and CBOs on environmental education and specific relevant themes;
- (i) Develop and implement a detailed wildlife-crime enforcement training programme to address capacity building needs for all sectors participating in the multi-sectorial wildlife crime enforcement efforts (e.g., FDA, EPA, Police, Border authorities, Army, Customs, Immigration, Intelligence, etc). These training programmes must also include training on human rights and related aspects;
- (j) On-going up-to-date and refreshment training of prosecutors and judges at the national, County and District levels, (with focus on the local level) on wildlife crime, the related legislation, and the importance of adequate deterring punishment;
- (k) Training of the GKNP staff and key stakeholders, as part of the detailed transboundary capacity building programme to be elaborated for the TGS, for strengthening the TGS Forest Complex's collaborative management and conservation, and with focus on on joint and coordinated training programmes and on exchange-based training programmes at the transboundary and regional contexts (e.g., exchange of local traditional leaders; exchange of conservation practitioners).

2.B.9.3. Way forward

Target 9.1. Elaborate and implement a capacity building programme, as an essential tool for achieving the GKNP's management objectives, goals and vision

Activity 9.1.1. The FDA with partners to develop and implement a detailed capacity building programme, to support achieving the GKNP objectives, based on the above outline and on an in-depth capacity needs assessment.

2.B.10. Administrative Management Plan

2.B.10.1. Introduction

The effective operation of the GKNP, for best achieving its management objectives, goals and vision, requires the implementation of a detailed, effective administration management and human resources plan, that is realistic within the existing conditions, budget availability, and existing and potential partnerships.

2.B.10.2. Outline for an administrative management plan

The GKNP's administrative management and human resources plan will be complemented by FDA and will include the following components, among others:

1. Identification and prioritization of administration and staff requirements for enabling the effective management of the GKNP and for achieving the GKNP's management objectives;
2. The organization of the Park management team, will be divided into the respective Administrative Zones.
3. In consultation with Park and FDA staff, and based on previous studies and projects, it is suggested that, pending on budget availability, the FDA will aim to recruit a total of 59 Park staff, including: 1 Chief Park Warden, 3 Zone Wardens, 1 Biologist and conservation officer, 1 Community Engagement officer, 1 Chief law enforcement officer (also acting as alternate Chief Park Warden), 1 Administration and financial management officer, 1 Administration and financial management assistant, 1 Logistics and maintenance officer, 1 Mechanic, 1 Training officer, 20 Park Rangers and 27 Eco-guards (3 from each of the 9 clans), Vehicle operators (acting as both drivers and mechanics – their number will depend on the number of vehicles that will be allocated to the Park).
4. Permanent Park staff will be recruited based on the FDA strategy. It is further suggested that detailed Terms of Reference will be developed for each position, with responsibilities and detailed experience, education and skills requirements. It is also suggested that priority will be given to the recruitment current Park staff, of adequately skilled residents in the GKNP's surroundings, and of adequately skilled women, over other candidates.
5. Eco-guards will be recruited only among local community members. It is suggested that 3 eco-guards will be recruited from each clan, in consultation with the traditional leadership. It is suggested that priority will be given to the recruitment of eco-guards already deployed by the WCF, and to women and youth.
6. The FDA will cooperate with the WCF (and possibly with other interested international NGOs/partners), in integrating their eco-guards and strategic interventions, into the Park system, and in the recruitment and training of further eco-guards.

7. It is suggested to consider an option for change of work regime of the Park rangers and eco-guards, aiming to secure full 24/7 availability of sufficient operational staff at any time, while addressing the Park staff's well-being and time-off requirements. It is suggested to consider the option of work in two shifts of two alternating ranger groups, every 15 days. Alternatively, it was proposed by FDA to consider the option of work in three shifts with three alternating ranger groups, every 15 days. In this case, one Ranger Group leader and one Eco-guards team leader must be nominated, for each of the alternating groups.
8. Detailed protocols for all staff recruitment, training, deployment, work-time regime, work conditions, salaries, benefit package, evaluation, career horizon, and legal protection, must be established, based on Liberia's legislation, other Parks in Liberia, and lessons learned from experience elsewhere.
9. Detailed protocols for the Park administration, work plans with detailed tasks of the Park and of each staff member, infrastructure and equipment procurement, installment, use and maintenance plans, as well as periodic Park performance report, will be prepared periodically (e.g., trimestral and annual plans and reports).

2.B.10.3. Way forward

Target 10.1. Park performance to be guided by a detailed administration management and human resources plan, for securing the effective operation of the GKNP, aiming to best achieve its management objectives.

Activity 10.1.1. Develop and implement a detailed administrative management and human resources plan, for enabling the effective management of the GKNP.

2.B.11. Financing Plan

2.B.11.1. Introduction

The effective operation of the GKNP and implementation of the GKNP management plan and thematic management programmes, for best achieving its management objectives, goals and vision, depends on budget availability. Moreover, the long-term effective operation of the GKNP depends on establishing financial sustainability. An effective financing plan is, therefore, essential. A financing plan includes identification, prioritizing, and quantification of financial requirements for the implementation of the management plan and thematic programmes, as well as indication of existing and potential funding sources, and financial management mechanisms.

2.B.11.2. Outline for a financing plan

The GKNP's financing plan will include the following components, among others:

1. Analysis and budgeting of all financing needs for the GKNP effective operation and for implementation of the GKNP management plan and thematic programmes, for best achieving its agreed management objectives, goals and vision, including:
 - (a) Human resources recruitment, training, equipping, deployment, and on-going employment, with all related costs.
 - (b) Infrastructure construction, installment and maintenance;
 - (c) Equipment procurement, installment and maintenance;
 - (d) Expenses of Park rangers' arming and related training;
 - (e) Insurance for Park staff;
 - (f) Basic annual running costs;
 - (g) Costs of special operations and activities;
 - (h) Costs of installing, operation and maintenance of essential infrastructures, roads and services for the local residents' needs;
 - (i) Costs of enabling shift of the local communities from unsustainable practice to sustainable livelihoods.
2. Setting financing priorities:
3. Analysis and estimated quantifying of all permanent, and ad-hoc available financial resources, including:
 - (a) Government permanent budget for the GKNP on-going operation and staff salaries. It is essential that basic Park operations sustainability and Park staff salaries, including eco-guard salaries, will be secured through a permanent Government budget;
 - (b) County and District authority budgets for infrastructures, roads and services for the local residents' needs and for the Park;

- (c) Partners and projects support to specific costs of staff training, equipping and deployment, Park infrastructure and equipment procurement, installment and maintenance, and Park operations and activities;
 - (d) Partners and projects support to shift of the local communities from unsustainable practice to sustainable livelihoods, including capacity building, to the development of sustainable local economic opportunities, and to installing, operation and maintenance of essential infrastructures, roads and services for the local residents' needs;
 - (e) Park entry fees and taxing of tourism operation concessions (not relevant in the GKNP in the short-term);
 - (f) Taxing private sector for the use of ecosystem services;
 - (g) Fines applied on infractions;
 - (h) Mobilizing further potential donors;
 - (i) Establishing Private-Public-Partnerships;
 - (j) Benefits for communities from successful implementation of livelihood and economic projects. Communities benefits will be managed separately by each community, in collaboration with the FDA, local authorities and relevant partners, and will not be included in the Park financing management.
4. Identification and quantification of financing gaps.
 5. Define mechanisms and procedures for financial management of the GKNP. A full-time financial management officer and an alternate/assistant should be recruited and responsible for the on-going management, planning and reporting of the GKNP's budget, including oversight of all incomes and expanses, and performance of all payments.
 6. Define clear monitoring and reporting procedures to establish financial transparency. Detailed trimestral and annual financial plans will be submitted by the Park Chief Warden and Financial management officer for FDA approval, and to supporting partners, indicating specific requested support of each partner. Detailed and justified monthly, trimestral and annual financial reports, as well as annual balances, should be produced by the financial management officer, for FDA evaluation. In addition, independent annual auditing should be performed.

3.11.3. Way forward

Target 11.1. Enable effective operation of the GKNP and implementation of the Park management plan, through a financing plan, aimed at securing financing sustainability of the Park operation and of communities' livelihoods.

Activity 11.1.1. Develop and implement a detailed financing plan, for enabling the effective management of the GKNP, and smooth implementation of the GKNP management plan and thematic management programmes.

Detailed Draft Budget: The following estimated general 5 year budget for the management plan and the thematic management programmes' development and implementation, was prepared in 2020 by Dr. K. Bangura, through close consultation with FDA, the National Consultants, and other key stakeholders. It will form the basis for analyzing and finalizing an updated budget, by the FDA, and based on the validated and periodically updated management plan details.

EXPENSES - GENERAL PARK MANAGEMENT AND THEMATIC MANAGEMENT PLANS	Total MP Estimated Budget (USD) 2022 - 2026	ESTIMATED ANNUAL COSTS				
		2022	2023	2024	2025	2026
SALARIES AND ALLOWANCES	912,720	186,144	186,144	180,144	180,144	180,144
TRANSPORT SYSTEM	2,246,090	714,946	382,426	382,426	383,146	383,146
ADMINISTRATION AND COMMUNICATION	180,900	36,180	36,180	36,180	36,180	36,180
MAINTENANCE OF INFRASTRUCTURE AND EQUIPMENT	180,900	36,180	36,180	36,180	36,180	36,180
BASIC OPERATIONAL COST	48,400	0	32,400	16,000	0	0
MANAGEMENT ZONING, LAND USE PLANNING, AND MAPPING (FOLLOW-UP CONSULTANCY COSTS)	30,000	15,000	15,000	0	0	0
CONSERVATION EDUCATION, AWARENESS AND COMMUNICATION	238,370	25,432	31,432	51,962	85,032	44,512
BIOMONITORING	131,200	11,500	55,700	17,500	11,500	35,000
LAW ENFORCEMENT AND PROTECTION	85,500	36,300	17,300	9,300	17,300	5,300
STAKEHOLDERS' ENGAHEMENT, AND LIVELIHOODS AND COMMUNITY DEVELOPMENT	362,000	99,000	41,000	99,000	29,000	94,000
INFRASTRUCTURE AND EQUIPMENT	4,258,869	844,756	938,321	813,291	845,191	820,191
TRANSBOUNDARY CO-OPERATION PROGRAMME	132,400	3,480	3,480	118,480	3,480	3,480
CAPACITY BUILDING PROGRAMME	106,000	38,000	28,000	20,000	17,000	3,000
KNOWLEDGE MANAGEMENT & M&E	77,989	41,709	5,010	20,830	5,430	5,010
TOTAL ESTIMATED RUNNING COSTS	8,991,338	2,088,627	1,808,573	1,801,293	1,649,583	1,646,143

Details of the financing plan items, for enabling the effective management of the GKNP, and smooth implementation of the GKNP management plan and thematic management programmes.

SALARIES AND ALLOWANCES
1 Chief Park Warden, 3 Zone Wardens
1 Chief law enforcement officer
1 Ecologist/Biologist, 1 Conservation Officer
1 Community engagement officer
1 Administration and financial management officer and 1 Assistant
1 M&E Communication Knowledge Manager
1 Training officer
20 Rangers
27 Eco guards (3 from each of the 9 clans)
36 Community/CPMC Volunteers (pending on WCF and other NGO support)
Support staff – permanent (10) and temporary (security, cleaners, cooks, attendants, drivers, mechanic, logistics & maintenance, secretaries)
Park staff insurance
TRANSPORT SYSTEM
Vehicle Procurement (3 4X4) hardtops
Vehicle Procurement (4X4) 4 Soft top for patrolling and transportation of equipment
15 Motor Cycles Procurement
20 Bicycle Procurement
7 Toyota land cruiser off-road (4x4) fuel cost
7 Toyota land cruiser off-road (4x4) CPT
7 Toyota Land Cruiser off-road (4x4) Servicing cost
7 Toyota Land Cruiser off-road (4x4) Tires
12 Motorbikes running costs (fuel and maintenance) 100/unit
ADMINISTRATION AND COMMUNICATION
Furniture, etc.
Office running costs – generator fuel
Alternatively consider 20 KVA Solar system
MAINTENANCE OF INFRASTRUCTURE AND EQUIPMENT
Maintenance of Park infrastructure and equipment
Maintenance of communication infrastructure
BASIC OPERATIONAL COSTS
Regulations and protocols for the Park Management (e.g. Workshops, Stakeholder Meetings)
Law enforcement Joint patrolling (logistic, allowances)
Identify sustainable financing options (e.g. networking, consultancies)
Developing annual work plans (meetings)
Community Participation
Training program for the key line agencies
Develop Park Infrastructure
MANAGEMENT ZONING, LAND USE PLANNING, AND MAPPING
Consultancy to elaborate a Management Zoning and Land Use Plan with GIS mapping, through extensive stakeholders' consultations

Boundary demarcation and maintenance
CONSERVATION EDUCATION, AWARENESS AND COMMUNICATION
Prepare a detailed awareness and communication plan for the park
Prepare a detailed education programme for communities around the park
Billboards and banners about key conservation issues, with strong visual message
Participation of FDA and GKNP staff and key partners (including local NGOs and CBOs and local community members), in advocacy forums and meetings
Elaboration and distribution of articles, reports, and scientific papers
Use of the mass media channels (newspapers, journals, TV and radio)
Communications program and media strategy/ media work (TV, Radio, Newspaper)
Implementation of Conservation clubs in Schools focusing on conservation education
Develop and maintain partnerships with national and local authorities, NGOs, sponsors and volunteers to optimize the educational experience of people visiting GKNP
Study tours for national park staff and local partners staff to other protected areas
Extensive campaign to abolish illegal hunting and bushmeat consumption (radio, TV, social media, posters, local theatre, "foot soldiers", clubs of friends of nature)
Specific sectorial/target group education and awareness campaigns
Preparation of information about the GKNP ecosystems, species, conservation importance, communities, social and cultural aspects
Distribution of information about the GKNP ecosystems, species, conservation importance, communities, social and cultural aspects
Establishment of a conservation education Learning Centre
Establish a museum for wildlife of the GKNP within the learning centre
Communication and visibility tool-kit (including e.g., periodic bulletin, brochures and leaflets, dedicated website, social networks, mobile cinema, local theatre, etc)
Collaboration with the formal education system
BIOMONITORING
Habitat mapping, vegetation cover, biodiversity and threats
Detailed biodiversity database
Species and habitat recovery plans
Links with international organizations
Application of "UNESCO World Heritage" Process
Rivers, Trails and Conservation Assistance
National Natural Landmarks
Cultural Resources Stewardship
Periodic mapping of forest cover and deforestation by remote sensing/Landsat
Periodic surveys of flora and fauna
Periodic census of endangered and iconic species – e.g., chimpanzee, pigmy hippopotamus, forest elephant, colobus monkeys, etc.
Training of local community members to participate in data collection
Periodic socio-economic and livelihood surveys
GKNP Restoration and Research
LAW ENFORCEMENT AND PROTECTION
Establishment of Law Enforcement standards, regulations, protocols and community by-laws
Establishment of policies for joint law enforcement
Develop a database for enforcement

Collaboration with Liberia Security Forces (meetings, protocols, joint training, joint operations)
Law enforcement joint committees and meetings
Prosecution costs including court attendance and training of prosecutors and judges
Training programs for Rangers, Eco-guard and CPMC Volunteers
Provision of separate supervisory and command level training
Health and Safety
STAKEHOLDERS ENGAGEMENT, AND LIVELIHOODS AND COMMUNITY DEVELOPMENT
Support stakeholders' engagement and institutional structures (CLMDCs, CFCs, PAMAC), meetings, protocols, workplans, joint training
Support to the cultivation of sustainable best practice and deforestation-free cacao, coffee, oil palm, swamp cultivation
Support human-wildlife-conflict study, mitigation programme and training
Support to sustainable products' value chain management and marketing
Support to developing additional sustainable livelihoods, including related training and vocational education
Establishment of cooperatives
Eco-guards recruitment, training, deployment.
Provision of educational support to local communities.
Provision of Health Support to local communities; including a disease control plan
Support provision of essential infrastructures and equipment for the communities
Rehabilitation of community roads through self-help and food/cash for work/donor support
Eco-tourism potential feasibility assessment (consultancy)
INFRASTRUCTURE AND EQUIPMENT
Preparation of infrastructure plan
Environmental and Social Impact Assessments for all constructions
Construction of Headquarter office complex
Construction 20 3 bedded houses for staff accommodation in Zhia Town
Construction of 20 Houses for visiting Families in Zhia Town
Construction of 3 Zone post complexes
Construction of 10 eco-lodge style bedded visitor accommodation
Construction of a Visitor Centre
Construction of food centre and equipment (kitchen, refectory, storeroom)
Installation of 130 signages in villages and around the park roads and boundaries
Construction of 4 bore holes with pumps
15 Radio hand-sets and chargers (long range)
3 radio equipment repeat antennas
Radio Handset Repeater
Internet facility through satellite provider/or orange (lonestar) Bluetooth
3 (8 KVA) Diesel Generators for night lighting
15 KVA Diesel Generator for office and staff quarters
20 KVA Solar Power Grid (batteries, inverters, charge controller, panels, installation)
15 KVA Diesel Generator Maintenance
3 (8KVA) Generators maintenance
Generator fuel
3 Solar Adapted hybrid Freezers

25 Solar adapted hybrid fans
Fully equipped tented mobile training post (for 30 people)
Fully equipped 4 tented mobile posts (for 6 people each)
First aid equipment and material at headquarters and in the 3 administrative zones
5 satellite phones at Headquarters, and administrative zones
3 binoculars with night vision mode for each team of rangers
10 GPS with high sensitivity for patrols
10 pocket cameras for patrols
20 handcuffs
2-liter ranger water bottles (Aluminum) – for each ranger
Procurement of camera traps
Procurement of rechargeable torches high beam military quality lights
Assorted batteries for equipment
Cost recovery shop for stapled food, provisions etc.
TRANSBOUNDARY CO-OPERATION PROGRAMME
Meetings and workshops
Develop the transboundary legal framework, agreement, and institutional structure to establish the co-management collaboration between the two countries
Detailed ecological connectivity feasibility assessment of the whole TGS Forest Complex area
Joint detailed spatial and land use planning of the TGS area, integrating plans of both countries (GIS consultant)
Detailed assessment of the legal and policy frameworks of both countries, and their harmonization (policy&law consultant)
Joint law enforcement collaboration accords and operations protocols, for collaboration in improving wildlife crime enforcement
Communication and information exchange measures and protocols
Joint capacity and skill building needs analysis
Initiate and support cross border patrols - Joint Monitoring
Cross border capacity building, joint training, and knowledge exchange visits
Control of passage areas and border areas
CAPACITY BUILDING PROGRAMME
Prepare a capacity needs assessment and prioritize capacity needs
Provide basic Park ranger courses to all current staff and new Park rangers
Periodic refresher courses, and ad-hoc advanced and thematic courses
Designate a training area within the GKNP, with mobile facilities (tented camp)
Training, in collaboration with relevant partners, of local community members to engage in sustainable livelihoods
Joint governance training for all the PAMAC participants, Park staff, relevant FDA officials, traditional leaders and the Community Park Management Committees members
Training for relevant FDA staff and other relevant national (e.g., LLA, EPA) and local (County, District) officials on land-use planning and biodiversity conservation mainstreaming
Biomonitoring and data collection training
Training for teachers, journalists and local NGOs and CBOs on specific themes
Implement a detailed wildlife-crime enforcement training programme involving all relevant sectors and agencies

Training of prosecutors and judges at the national, County and District levels, on wildlife crime
INSTALL AND OPERATIONALISE TECHNOLOGICAL INFRASTRUCTURE (CONSERVATION KNOWLEDGE MANAGEMENT SYSTEM) FOR COLLECTING, STORING AND SHARING CKMS DATA AND INFORMATION BETWEEN THE CONSERVATION MANAGEMENT SYSTEM
CKMS Design – Consultant or integrate with EKMS (www.ekmsliberia.info)
Hostgator Cloud System - 36 months
WordPress Theme
CKMS installation (consultant)
Plugins
Domain registration
Satellite Internet Modem
Satellite internet subscription
Cloud Backup equipment - 2 3TB External Drives
Desk tops - 3
Laptops - 2
HP Colour Laser Pro printer
Cartridges HP414A/W2020A TONER cyan
HP Laser Jet Printer
Cartridges HP414A/W2020A TONER Black
HP Laser Jet Printer Toner HP19A
CKMS Training by doing (5 days) assuming 30 people
Backup Batteries - 3
Router and Blue tooth
Projector

FINANCING PLAN - SOURCES OF INCOME
Government permanent budget allocation for GKNP
County and District authority budgets for infrastructures, roads and ETC
Partners and projects support to specific costs of staff training, equipping deployment, infrastructure
Partners and projects support to sustainable livelihoods, capacity building and development of sustainable local economic opportunities,
Park entry fees and taxing of tourism operation concessions
Taxing private sector for the use of ecosystem services
Fines applied on infractions
Mobilizing further potential donors
Establishing Private-Public-Partnerships and Community-Private-Public-Partnerships
Benefits for communities from successful implementation of livelihood and economic projects
Research fees
Carbon market, REDD+
Multilateral funding (e.g., GEF, GCF, World Bank, UN)

2.B.12. A plan for an Eco-tourism Potential Feasibility Analysis

2.B.12.1. Introduction

Tourism is not yet implemented in the GKNP, and may not be a viable option in the near future. Nevertheless, eco-tourism is normally considered as a major opportunity for enabling Protected Areas' financial sustainability, as well as for sustainable economic development and benefits for local communities. Therefore, it is suggested that a detailed eco-tourism development feasibility assessment will be realized, to analyze all factors related to enabling eco-tourism development, to define the conditions that need to be in place for making tourism a viable economic opportunity in the GKNP, and to develop an estimated timeline and budget.

Over time, effective implementation of the GKNP's management plan, and the Park's establishing as an effectively managed Protected Area, with resulting increased wildlife populations, and viewing opportunities, as well as improved and sustainable livelihoods of the local communities, may create an emerging opportunity to develop ecotourism in the GKNP and the surrounding area, as a potentially viable economic development opportunity for in the local, national, and cross-border contexts.

2.B.12.2. Outline for an eco-tourism potential feasibility analysis in and around the GKNP

An eco-tourism potential feasibility analysis in and around the GKNP, can include the following activities, among others:

1. Defining short, medium and long-term objectives, challenges, and opportunities for developing eco-tourism in the GKNP, with a detailed assessment of a timeline and costs.
2. Analyzing potential markets and interests for national, cross-border and international tourism, in the GKNP.
3. Analyzing security and access conditions, and infrastructure, facilities and services availability and development potential, in and around the GKNP, and in the District, County and National levels.
4. Analyzing potential for mobilizing partnerships and for establishing Public-Private-Partnerships for eco-tourism development, in and around the GKNP.
5. Defining capacity and skill needs and analyzing capacity and skill gaps, and capacity building requirements for developing eco-tourism in and around the GKNP and for enabling the active participation of community members.
6. Survey of biodiversity and landscape values, viewing possibilities, and options for specialized tourism interests (e.g., birdwatching, forest walks, etc). Optional chimpanzees' habituation for tourism can be considered, in consultation with the WCF, once ape poaching is abolished, and in accordance to the IUCN/SSC –PSG/SGA - Best Practice Guidelines for Great Ape Tourism.

7. Survey of cultural values and local knowledge assets and traditions, and evaluating potential and conditions for establishing culture-based eco-tourism with the local communities, and for securing that their rights would not be compromised.
8. Analyzing carrying capacity, to determine Limits of Acceptable Change (LAC), if eco-tourism would be developed. LAC analysis would be followed by setting detailed eco-tourism conditions (including, e.g., mapping permitted routes, defining maximum permitted number of tourists at any time, permitted daytime and season, safety distance from wildlife observed, strict conditions regarding visits to communities and community land and traditional forests, etc.).
9. Analyzing the potential for cross-border cooperation in eco-tourism development, throughout the TGS Forest Complex.
10. Pending on the eco-tourism feasibility analysis of the GKNP, and if the development of eco-tourism would be confirmed to be feasible, the next step would be to develop a sustainable Eco-tourism Business Plan for the GKNP, with focus on communities' engagement, and through partners' support.

2.B.12.3. Way forward

Target 12.1. Evaluation of the feasibility and conditions requirements for establishing eco-tourism in and around the GKNP, as a viable and sustainable local economic development opportunity, to help achieving the GKNP's goals and vision.

Activity 12.1.1. Develop and implement a detailed eco-tourism potential feasibility analysis, including the components detailed in the above outline

Part 3: Monitoring and Evaluation Plan

The design and implementation of an effective monitoring and evaluation plan (M&E), is an essential tool for enabling a dynamic process of on-going dynamic development, adjustment and improvement of the management plan, in accordance with accumulating information, changing conditions, and lessons learned.

The monitoring and evaluation plan is designed to enable effective follow up of progress in the management plan's implementation and in achieving the defined objectives, through simple reporting that does not burden the Park staff and partners with frequent and substantially time consuming monitoring and reporting tasks.

The monitoring and evaluation plan includes the following elements:

- (a) Monitoring and evaluation of progress in implementation of the defined activities, based on *performance indicators*, and performed semesterly;
- (b) Monitoring and evaluation of the outcomes of the GKNP management plan's implementation, as related to achieving the defined management objectives, goals and vision, based on *outcome indicators*, and performed annually.

The results of the implementation progress and outcome progress monitoring will help guiding the elaboration of the annual workplans.

3.1. Monitoring and evaluation of progress in implementation of the defined activities, based on performance indicators

Quarterly implementation progress reports will be submitted by the GKNP Park Chief Warden, following consultation with key stakeholders. The quarterly progress reports will be submitted to evaluation by the FDA Regional Forester and the Forest Conservation Department, and will then be distributed to all key stakeholders.

The implementation progress reports provide information on progress made in activities' implementation, and their results, as well as on constraints and challenge met in their implementation, and recommendations for way forward. Quantitative performance indicators and annual targets will be defined in the annual workplans. Annual implementation targets for activities that are not planned to be implemented in a specific year, will be set to zero on that year.

The progress reports will analyze progress made in all activities defined in the management plan, and included in the respective annual workplans, for the mitigation of the main identified threats (Part 2), and for the implementation of the Thematic Management Programmes (Part 3). These reports will serve to guide the adjustment of specific activities, as may be needed, for enabling better progress in their implementation, and for the mitigation of constraints and challenges met.

Table 9. Proposed format for monitoring of progress in implementation

Activity (Part 2 and Part 3)	Performance indicator	Annual implementation target	Progress made	Results	Constraints and challenges	Recommendations for way forward
I.1.1.1. Example Raise awareness and build capacities of local farmers to shift to sustainable food cultivation practice	E.g., number of training activities; number of trainees;...	E.g., at least XX farmers trained in at least XX training activities;...	E.g., XX farmers trained in XX training activities;...	E.g., XX farmers shifted to conservation farming practice successfully; ...	E.g., Availability of expert trainers; Farmers resistance to change,...	E.g., Recruitment of expert trainers from neighboring countries; training trainers among local farmers; engagement of local NGOs in raising awareness for reducing farmers resistance to change;....
I.1.1.2.						
....						
....						
12.3.1.1.						

3.2. Monitoring and evaluation of progress in achieving the GKNP's defined management objectives, based on outcome indicators

Annual outcome progress reports will be submitted by the GKNP Park Chief Warden, following consultation with key stakeholders. The quarterly progress reports will be submitted to evaluation by the FDA Regional Forester and the Forest Conservation Department, and will then be distributed to all key stakeholders.

The outcome progress reports will include quantified information and rating of progress made in achieving the GKNP's management objectives, through mitigation of the main identified threats, and implementation of the Thematic Management Programmes. Evaluation of progress is based on detailed outcome indicators. The baseline studies will be used to determine the baseline level of the indicators. Annual evaluation of progress will be based on the identified sources of verification, including dedicated surveys required.

The outcome evaluation reports will serve to guide the adjustment of the management plan, identified targets, strategies, activities, and thematic management programmes, as may be needed, for enabling better progress in achieving the GKNP's management objectives, goals and vision. Recommendations for adjustments of the management plan and specific thematic programmes will be included in the annual outcome evaluation reports, and based on the evaluation and rating of the outcome indicators.

Table 10. Proposed format for monitoring of progress in achieving the GKNP's management objectives

Management Objective	Outcome Indicator	Baseline level (annual)	Annual target	Annual progress achieved	Annual target achievement Rating	Source of verification
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					(1-5)	
Maintain the boundary harmonization and demarcation of the GKNP	Boundary line maintained and cleared					Baseline studies
	No of illegal activities reported within the Park area					Periodic thematic surveys
	GKNP forest area cover					Boundary line monitoring
	Water quality measures in waterbodies in the GKNP					Park reports and partners' reports Satellite images
Abolish all illegal activities in and around the GKNP	Number of culprits (poachers, illegal loggers, illegal miners, traffickers) prosecuted					Court registration
	Rate of hunting signs (bullet shells, tracks, etc) encountered on transects					Baseline studies
	GKNP and surrounding forest area cover and deforestation recorded					Periodic thematic surveys
	Surveys of selected wild flora and fauna species, subjected to wildlife crime					Park reports and partners' reports
	Mammals' flight distance					Satellite images
	No. and quantities of illegally caught live wildlife, bushmeat, other derivatives, timber, chewing sticks, recorded					
	No. of illegal mining activities recorded					
	Water quality measures in waterbodies in and around the GKNP					
Enhance community empowerment and benefits around the GKNP	Number and % of community members engaged in sustainable food cultivation practices					Community interviews
	Number and % of community members engaged in sustainable income sources projects (including agro-forestry-based commercial farming; NTFPs cultivation and sustainable harvest, and					Baseline studies Periodic thematic surveys Park reports and partners' reports

	other economic activities)					
	Number of community members recruited as Park staff, eco-guards, guides, service providers, and project partners' staff					
	Number and % of women engaged in sustainable livelihoods, economic activities, and employment opportunities					
	Level of satisfaction reported by community members engaged in sustainable projects					
	Household income and food security measures, of community members engaged in sustainable economic activities					
	Number, distribution and characterization of HWC incidents					
	Cultural assets known, registered, maintained and respected by all stakeholders					
Develop adequate infrastructure in and around the GKNP	No. and % of National, local and sectorial development and land-use plans that are mainstreamed with Park management zoning, and No. and % of development initiatives that are subject to ESIA's and licensing on case-by-case basis					Community interviews BNS survey Baseline studies Periodic thematic surveys Park reports and partners' reports National, local and sectorial land-use plans EISAs Provincial master plan
	No. of essential roads and infrastructures agreed with communities, and compatible with park land use planning, implemented and installed					
	No. of WASH facilities installed					
	BNS measures					
	Level of satisfaction reported by community					

	members regarding essential infrastructures and services availability					
Involve all relevant stakeholders in collaborative management and monitoring of the GKNP	No. of PAMAC meetings/year					Baseline studies
	No. of CLMDCs and CFCs established and functioning					Periodic thematic surveys
	Level of satisfaction reported by all key stakeholders (FDA, communities, local authorities, line ministries and agencies, NGOs and partners), regarding their involvement in co-management					Park reports and partners' reports Community interviews Key stakeholders' interviews Meetings minutes

3.3. IMET

The IMET (Integrated Management Effectiveness Tool) provides an additional and digitized tool for planning, monitoring and evaluation of Protected Areas and their management effectiveness.³² The IMET form organizes and structures the information according to 2 main parts: (a) intervention context and (b) management effectiveness (directly related to the context analysis and analyzed according to the PA management cycle), and includes the visualization of elements and analysis tools which facilitate decision support. An IMET training, supported by Ambero/GIZ, was provided to the FDA and key partners, in the GKNP management by OIPR experts, in November 2019, including the installing of the IMET tool on key FDA officials and stakeholders' computers, and initial baseline completion of the IMET online tool. The IMET will be used as an additional tool for participatory annual evaluation of the GKNP management effectiveness and dynamic adaptation of the Management Plan, and will help guiding the elaboration of the annual workplans.

3.4. A Conservation Knowledge Management System

Background

The GKNP Park Management involves implementing multispectral programmes (i.e., the above 12 Thematic Management Programmes). Implementing such multispectral programs can be complex, and knowledge can become fragmented, difficult to locate and share, and therefore redundant, inconsistent, or not used at all. As the park management will become more operational, the management will become challenged by an explosion of unselective information. Therefore, for the Park managers will need to have the right information at the right time, to apply it to their outreach and work management. A Conservation Knowledge Management System (CKMS) will

³² OIPR. 2019. Introduction to the IMET tool for the management planning of Grebo-Krahn National Park. Presentation, IMET Workshop. FDA and Ambero-GIZ

operationalize the storage and sharing of information relating to the park management themes.

The GKNP's management is part of the Government of Liberia's effort to make better decisions, to meet and sustain its global and conservation obligations. This requires the FDA to coordinate efforts and best practices for integrating national and global conservation priorities into planning, decision-making, and reporting processes. To this end, the objective of the CKMS is to strengthen a targeted set of institutional capacities to deliver and sustain national and global conservation outcomes, within the framework of sustainable development priorities, in the River Gee and Grand Gedeh Counties.

In an effort to bridge knowledge management gaps, the CKMS will strengthen institutional coordination between GKNP, NGOs, partners and Liberia government institutions that have linkages to biodiversity conservation policies and development, by creating an integrated knowledge management platform, that will increase access and dissemination of key information, and promote adequate public awareness and education. The CKMS should also be integrated with Liberia's Environmental Knowledge Management System (EKMS), which focuses on achieving the Rio Conventions' objectives of biological diversity, climate change action, and sustainable land management.

CKMS integration in the GKNP's management monitoring

The design of the Park's integrated CKMS will focus on monitoring the thematic management programme, as a basis to monitoring the implementation of the whole management plan.

A cloud-based knowledge management system will be created under the supervision of FDA, by EKMS staff at the FDA or through partners' support. This system will be accessed via internet through the web and a database platform. Staff engaged in Monitoring and Evaluation (M&E) will be given different levels of access and training on the use of the system. The main objectives of the system are to:

1. Help the FDA and partner institutions make best decisions through assimilating lessons learnt;
2. Share GKNP' lessons and success with line ministries and agencies, partners, academic institutions, the media, and the public;

The CKMS baseline situation as considered for Liberia's Protected Areas is:

1. Insufficient public awareness and education;
2. Limited dissemination of key information;
3. Insufficient access to data and knowledge on inventories and other relevant biodiversity information;
4. Weak institutional coordination.

In response to these challenges, the CKMS will aim to help the FDA to meet and sustain global environmental obligations in relation to the GKNP, through improved management decisions, which could be extended to other parks. The M&E staff will

establish an integrated conservation knowledge management system, that focuses on conservation knowledge flows and on the process of creating, sharing and distributing conservation knowledge.

Methodology of the CKMS design

M&E staff at the FDA, or an external thematic consultant (preferably national), with partners' support, will establish one or both of the following systems:

1. A Hybrid CKMS that is a combination of local hardware and cloud software;
2. A cloud-based CKMS that is strictly online;

The selection among these methodologies for the GKNP is based on the following considerations:

1. Availability of electricity;
2. Availability of internet;
3. Availability of trained staff;
3. Cost.

The selection of the cloud-based system was based on the following considerations:

- Considering that electricity is a major challenge in River Gee and Grand Gedeh Counties, the hybrid system may not be as effective as the cloud-based system. When the power goes off, the entire hybrid system shut down and users are not able to access the system until power returns.
- Solar backup systems can guarantee the smooth running of the system, without a generator, only during 7 months, and it would be too costly to increase the power storage with a bigger backup battery.

Knowledge and information contents will be based on the thematic management programmes and additional relevant sectoral data. Knowledge management software can store and analyze any type of contents, including Word and PDF documents, images, video, audio, graphics, emails, website links, unstructured notes, etc. Availability, access and security are key concerns for any system that will be deployed. The system will be accessible at all times to the public, but specific data will be restricted only to users that will be granted access rights. The system must be sufficiently secured to withstand attacks and any attempted security breaches.

All files generated during the establishment of the park will be compiled, as the first step in the process. External hard drives will be used as the first storage devices, until the cloud-based system will be established. All the information uploaded on the cloud-based system will be backed up on external hard drives and kept in a safe location at Park headquarters.

The processes of establishing the CKMS includes:

- Identification of the management-related data and knowledge generated from the management programme's implementation;
- Mapping of the various categories of the knowledge;

- Acquiring the knowledge from relevant sources (internal and external);
- Storing the knowledge;
- Analyzing the knowledge;
- Sharing the knowledge;
- Applying the learning;
- Creating new knowledge.

FDA's sources of information and knowledge are:

- FDA staff and consultants (explicit and tacit knowledge);
- Donor and partners (GIZ, WCF, Earthworm, Ambero, among others);
- Relevant line ministries and agencies in Liberia;
- Relevant government agencies in other countries;
- International conventions, committees, and agreements.

The information and knowledge forms include, among others:

- The GKNP management plan;
- Policy documents;
- Study reports;
- The GKNP gazettement package and baseline studies;
- Park workplans and reports;
- Meeting reports;
- Factsheets;
- Books;
- Videos;
- Photos;
- Concept notes;
- Guides;
- Leaflets;
- Feature articles;
- Newsletters.

A Cloud-based CKMS

Essentially the cloud is the internet. In simple terms, the 'cloud' is the ability to host a software platform or service from a remote location, that can be freely accessed and used anywhere via internet access. Instead of installing a suite of software programs on multiple computers, you only require one application log-in, similar to signing into a Hotmail or Gmail account. Moreover, with many cloud-based services designed on a 'pay as you go model', the costs are significantly lower than installing physical infrastructures.

The Cloud-based CKMS provides the following service characteristics:

- Information sharing and collaboration - through various forms of electronic communication, based on document change management, user grouping, and information exchange;

- Search ability – the CKMS ensures that all contents are searchable, sorted or grouped, in accordance to user specifications;
- Contents aggregation - all contents in the system are grouped by topics;
- Sorting – all contents are classified according to defined categories;
- Georeferencing - contents can be geotagged;
- The CKMS can include customized view platforms, dashboards, and reports;
- Various tiers of access control and permissions, to manage user access;
- The CKMS is easily scalable;
- The CKMS can be easily integrated into existing and new systems;
- The CKMS can be integrated into Facebook, WhatsApp and other social media;
- The CKMS can include a community forum, where Park staff and partners can chat and send instant contents, such as photos, georeferenced information on wildlife, threats, success stories, etc.

The following link can be used for designing a cloud-based CKMS for the GKNP:

<https://wordpress.org/plugins/>

Linkages with existing systems

The CKMS for the GKNP can be integrated into a national EKMS. It can be further linked with international websites, such as the UNCCD, UNFCCC and UNCBD websites. Other related websites can be added as relevant. EPA also has an existing EKMS, the Safeguard Information System (SIS), which can be accessed on this link:

<https://liberia-redd-sis.info/safeguards-information>

There is also a Climate Change Management Information System, funded by UNDP. The CKMS for the GKNP will serve as the main knowledge management systems for this park.

Creating the CKMS for the GKNP

- Step 1: creating the CKMS website;
- Step 2: creating the CKMS database system (CKMS Portal);
- Step 3: writing an important note for system users;
- Step 4: data population and management.

Recommendations

- The M&E staff needs training and/or experience in Knowledge Management and would be preferably recruited as an FDA permanent post, specifically dedicated for this task. The CKMS officer for the GKNP can be the FDA's EKMS officer, considering that the CKMS will be integrated into the EKMS;
- Relevant staff of partner institutions would need to be trained in Knowledge Management, to support the CKMS implementation;
- Pilot support can include training of staff of a limited number (6) of partner institutions, and later expanded, pending on funding availability;
- The CKMS website will be integrated with the EKMS website, and especially with the media component of the EKMS website;

- The Communications Department and the EKMS Officer of the FDA should be involved in the CKMS implementation process.

Part 4: Initial 2 years Implementation Plan

The following initial 2 years implementation plan, provides a detailed plan and chronogramme for the implementation of the identified activities of the GKNP's management plan and the specific thematic management programmes, during the first two years of implementation.

Table 11. Initial 2 years implementation plan

Activity No.	Activity plan in years 1-2	Implementation Months											
		1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24
I.1.1.1.	Sustainable food cultivation projects (conservation farming and agro-forestry) planning, pilot activities and training trainers	X	X	X	X	X	X	X	X	X	X	X	X
I.1.1.2.	Forming farmer associations; removal of all cultivation from within the GKNP area; provision of alternative plots in lowlands				X	X	X	X	X	X	X	X	X
I.1.2.1.	Planning and pilot projects of other sustainable livelihood initiatives; training trainers		X	X	X	X	X	X	X	X	X	X	X
I.2.1.1.	Raising awareness and capacitating local commercial cocoa farmers to shift to agro-forestry best-practice; pilot indigenous tree nurseries; training trainers		X	X	X	X	X	X	X	X	X	X	X
I.2.1.2.	Forming farmer cooperatives (with focus on sustainable cocoa farming, as well as other sustainable cultivations); forming PPPs for improved sustainable practice and marketing				X	X	X	X	X	X	X	X	X
I.2.2.1	Mainstreaming allocation of registered sustainable cocoa cultivation sites, in overall land-use planning of the GKNP's surrounding area.		X	X	X	X	X	X	X	X	X	X	X
I.2.3.1.	Planning and pilot projects of other sustainable income sources and economic activities; training trainers; exploring marketing opportunities		X	X	X	X	X	X	X	X	X	X	X
I.3.1.1.	Mainstreaming allocation of registered logging concessions, including in community forests, and including registration of local power-chainsaw operators, in overall land-use planning of the GKNP's surrounding area.		X	X	X	X	X	X	X	X	X	X	X

I.3.1.2.	Logging concessions evaluation and licensing, based on ESIA's, and in accordance to ITTO standards	X	X	X	X	X	X	X	X	X	X	X	X
I.3.1.3.	Raising awareness, monitoring and enforcement of best-practice logging rules	X	X	X	X	X	X	X	X	X	X	X	X
I.3.1.4.	Developing forest restoration protocols, including pilot landscape restoration best practices (e.g enrichment planting); pilot indigenous tree nurseries; training trainers			X	X	X	X	X	X	X	X	X	X
I.3.2.1.	Developing agreements with communities with protocols of permitted logging for personal use and raising awareness		X	X	X	X							
I.3.2.2.	Illegal logging enforcement	X	X	X	X	X	X	X	X	X	X	X	X
I.4.1.1.	Developing agreements with communities with protocols of permitted NTFPs harvest and raising awareness		X	X	X	X							
I.4.1.2.	Enforcement of illegal harvest and trade of chewing sticks and other unsustainably harvested NTFPs for commercial use	X	X	X	X	X	X	X	X	X	X	X	X
I.4.1.3.	Developing best-practice projects of NTFPs cultivation and sustainable harvest with communities; pilot projects implementation, including indigenous plant nurseries; training trainers; and creating awareness on NTFP harvesting practices for sustainable production and management		X	X	X	X	X	X	X	X	X	X	X
I.5.1.1.	Promoting land rights registration and mapping			X	X	X	X						
I.5.1.2.	Promoting community land rights registration and mapping; raising awareness			X	X	X	X						
I.5.1.3.	Cooperation with the relevant authorities in Liberia and Côte d'Ivoire to control encroachment to the GKNP and surroundings, through illegal immigration	X	X	X	X	X	X	X	X	X	X	X	X
I.5.1.4.	Enforcement to prevent any settlements, livelihood or economic activities inside the gazette GKNP area, and promoting shift to best-practice sustainable activities, in the GKNP's surroundings	X	X	X	X	X	X	X	X	X	X	X	X
I.6.1.1.	Study and mapping of invasive species presence in the forest ecosystems in and around the GKNP; mitigation					X	X	X	X	X	X		

	of <i>Chromolaena odorata</i> expansion, based on existing knowledge and experience elsewhere; and developing protocols to prevent the intentional introduction of alien invasive species (IAS)												
I.7.1.1.	Developing and implement of an effective fire control plan in and around the GKNP; raising awareness; building rapid intervention capacity				X	X	X	X	X	X	X	X	X
II.1.1.1.	Developing agreements with communities with strict protocols of permitted subsistence hunting outside the GKNP; raising awareness		X	X	X	X							
II.1.2.1.	Planning and pilot projects of sustainable sources of protein; training trainers		X	X	X	X	X	X	X	X	X	X	X
II.1.2.2.	Providing employment opportunities to community members as Park staff, eco-guards, guides and projects staff			X	X	X	X	X	X	X	X	X	X
II.2.1.1.	Raising awareness among local communities to abolish commercial bushmeat poaching	X	X	X	X	X	X	X	X	X	X	X	X
II.2.1.2.	A campaign for increased awareness, aimed to abolish trade, selling and consumption of bushmeat throughout the District, the County and at national level, with focus on bushmeat marketing for city dwellers		X	X	X	X	X	X	X	X	X	X	X
II.2.1.3.	Use of billboards and banners in strategic positions to support the campaign to abolish trade and consumption of bushmeat				X	X	X	X	X	X	X	X	X
II.2.2.1.	A multi-sectorial joint operational programme for improved investigation and enforcement efforts, to abolish commercial bushmeat poaching and illegal trade, including building rapid intervention capacity	X	X	X	X	X	X	X	X	X	X	X	X
II.2.2.2.	A transboundary multi-sectorial joint operational programme, through the TLETC, for improved investigation and enforcement efforts, to abolish cross-border illegal bushmeat trade	X	X	X	X	X	X	X	X	X	X	X	X
II.2.2.3.	Informing and training local prosecutors and judges to				X	X				X	X		

	secure adequate punishment of illegal bushmeat trade												
II.2.2.4.	Recruitment, training, equipping and deployment of local community members as Park staff and eco-guards and informers, aiming to abolish the illegal bushmeat trade			X	X	X	X	X	X	X	X	X	X
II.2.3.1.	Planning and pilot projects of protein-based sustainable economic activities; training trainers			X	X	X	X	X	X	X	X	X	X
II.2.4.1.	Study and mitigation measures of infectious diseases, based on relevant existing knowledge and experience elsewhere; raising awareness					X	X	X	X	X	X	X	X
II.3.1.1.	Raising awareness among local communities to abolish poaching of protected species	X	X	X	X	X	X	X	X	X	X	X	X
II.3.1.2.	A campaign for increased awareness, aimed to abolish illegal wildlife trade of protected species, at all levels		X	X	X	X	X	X	X	X	X	X	X
II.3.1.3.	Use of billboards and banners in strategic positions to support the campaign to abolish illegal wildlife trade of protected species				X	X	X	X	X	X	X	X	X
II.3.2.1.	A multi-sectorial joint operational programme for improved investigation and enforcement efforts, to abolish poaching and illegal trade in protected species, including building rapid intervention capacity	X	X	X	X	X	X	X	X	X	X	X	X
II.3.2.2.	A transboundary multi-sectorial joint operational programme, through the TLETC, for improved investigation and enforcement efforts, to abolish cross-border illegal wildlife trade in protected species	X	X	X	X	X	X	X	X	X	X	X	X
II.3.2.3.	Informing and training local prosecutors and judges to secure adequate punishment of illegal wildlife trade				X	X				X	X		
II.3.2.4.	Recruitment, training, equipping and deployment of local community members as Park staff and eco-guards and informers, aiming to abolish poaching and trade in endangered species			X	X	X	X	X	X	X	X	X	X
II.3.3.1.	Establish partnerships with existing best practice sanctuaries in Liberia and elsewhere in the region, to			X	X	X	X	X	X	X	X	X	X

	develop a strategy and protocols for the transfer of confiscated live wildlife to existing relevant sanctuaries; and in relevant cases to construct rehabilitation facilities and to rehabilitate and release confiscated wildlife with expert's training and remote guidance and support												
II.3.4.1.	Developing and implementation of a holistic HWC study and mitigation programme that is based among other components, on capacitating local farmer associations, spatial planning of cultivations, selection of crops that are less vulnerable to HWC				X	X	X	X	X	X	X	X	X
III.1.1.1.	Raising awareness among local communities to reduce and regulate artisanal gold mining and to abolish illegal activities	X	X	X	X	X	X	X	X	X	X	X	X
III.1.1.2.	A campaign for increased awareness, at all levels, aimed to reduce and regulate artisanal gold mining and to abolish illegal activities		X	X	X	X	X	X	X	X	X	X	X
III.1.2.1.	A multi-sectorial joint operational programme for improved investigation and enforcement efforts, to abolish illegal mining activities and gold trade, in and around the GKNP, including early warning to detect any incipient use of mercury, and building rapid intervention capacity.	X	X	X	X	X	X	X	X	X	X	X	X
III.1.2.2.	A transboundary multi-sectorial joint operational programme, through the TLETC, for improved investigation and enforcement efforts, for the control of artisanal mining and trade in minerals in the trans-boundary basin of the Cavalla River		X	X	X	X	X	X	X	X	X	X	X
III.1.2.3.	Informing and training local prosecutors and judges to secure adequate punishment of illegal mining activities and trade				X	X				X	X		
III.1.2.4.	Recruitment, training, equipping and deployment of local community members as			X	X	X	X	X	X	X	X	X	X

	Park staff and eco-guards and informers, aiming to abolish illegal mining activities and trade												
III.1.3.1.	Developing agreements with local miners, with strict protocols of permitted low-impact mining activities and sites, based on existing best-practice knowledge; raising awareness		X	X	X	X	X	X	X	X	X	X	X
III.1.3.2.	Registration of all mining activities and miners and their machinery around the GKNP, capacitating miners to shift to sustainable best-practice and licensing of local miners complying with agreed best-practice protocols				X	X	X	X	X	X			
III.1.3.3.	Promoting collaborative models and agreements between mining companies and licensed artisanal miners, complying with the best-practice protocols					X	X	X	X	X	X		
III.1.4.1.	Planning and pilot projects of alternative sustainable income-generating economic activities; training trainers			X	X	X	X	X	X	X	X	X	X
III.2.1.1.	Mainstreaming allocation of sites for the mining concessions, as part of the overall land-use planning of the GKNP's surrounding area		X	X	X	X	X	X	X	X	X	X	X
III.2.1.2.	Mining concessions evaluation and licensing, based on ESIA's, and in accordance to international best-practice standards	X	X	X	X	X	X	X	X	X	X	X	X
III.2.1.3.	Supervision and monitoring of mining concessions, to control compliance; promoting collaboration between mining companies and artisanal miners	X	X	X	X	X	X	X	X	X	X	X	X
III.3.1.1.	Mainstreaming of all development and public work plans, including roads, urban centers, and sectorial developments, among others, into the overall land use planning and management zoning to be developed for the GKNP and the surrounding area		X	X	X	X	X	X	X	X	X	X	X
III.3.1.2.	Evaluation, licensing and monitoring of all development works around the GKNP, based on ESIA's, and in	X	X	X	X	X	X	X	X	X	X	X	X

	accordance to international best-practice standards												
III.3.1.3.	Training of officials of the FDA and all relevant sectors in integrated land-use planning and biodiversity conservation mainstreaming				X	X	X						
III.4.1.1.	Raising awareness among all relevant sectors at all levels, with special focus on local communities, for improved waste management, sanitation and protection of the water resources			X	X	X	X	X	X	X	X	X	X
III.4.1.2.	Training and capacitating at all levels for improved capacity for best-practice waste management and sanitation and for protection of the water resources and water bodies in the GKNP and surrounding area; implementation of WASH pilot projects with communities				X	X	X	X					
Thematic Management Programmes													
1.1.1.	Surveys and geo-referenced data collection to increase and map the knowledgebase, and to include all existing and planned land uses, in developing more informed, detailed and dynamic, zoning and spatial planning		X	X	X	X	X	X	X	X	X	X	X
1.1.2.	Support the communities in the development, zoning and mapping of participatory land-use and management plans (LUMPs) and by-laws, with customary land formalization in the periphery of the park, mainstreaming conservation practices in land use planning.		X	X	X								
1.1.3.	Training of FDA officials and representatives of all key stakeholders in integrated land-use planning; sustainability of land and natural resources use; and landscape restoration best practices		X	X	X								
1.1.4.	Developing detailed protocols of activities and land-uses permitted and prohibited in each management zone category, and with detailed conditions		X	X	X	X							
1.1.5.	Promoting shift of the local communities from unsustainable practices to		X	X	X	X	X	X	X	X	X	X	X

	sustainable livelihoods, including relevant skill building												
1.1.6.	Support self-identification, land formalization and land use planning and management of customary lands in categories B and C areas around the GKNP, including sacred forests and sustainable use forest reserves.			X	X	X	X						
1.1.7.	Maintenance of the boundary line between the gazette Park (category A) area and the community lands in categories B and C areas, in the periphery of the Park.			X			X			X			X
1.1.8.	Elaborate a management and zoning plan for the GKNP and the FMC-F concession and the community forests in categories B and C areas				X	X	X	X					
1.1.9.	Collaboration with Côte d'Ivoire , in knowledge sharing, experience exchange, and coordinated land-use planning, for securing ecological connectivity throughout the TGS complex		X	X	X	X	X	X	X	X	X	X	X
2.1.1.	Establish the PAMAC with stakeholders' representation, and agreed ToRs												
2.1.2.	Cooperation agreements and joint protocols for multi-sectorial collaboration in information sharing, and coordinated planning and implementation of the GKNP management plan		X	X	X								
2.1.3.	Joint training of relevant officials in integrated land-use planning		X	X	X								
2.2.1.	Establishment and formalization of community consultation forums that will represent the communities in the PAMAC and District consultation forums, and in direct dialogue with the FDA, for the co-management of the GKNP and surroundings		X	X	X	X							
2.2.2.	Support capacity building of the PAMAC and the CLDMCs or CFCs	X	X	X	X	X	X	X	X	X	X	X	X
2.2.3.	PAMAC consultations for developing detailed protocols of activities and land-uses permitted and prohibited in each management zone category, and with detailed		X	X	X	X							

	conditions, the actor categories that are permitted to perform each activity												
2.3.1.	Developing mechanisms and protocols to ensure the inclusion of all essential stakeholders in consultations for cooperation in the on-going development, implementation, and monitoring of the GKNP management plan		X	X	X	X							
2.3.2.	Develop an integrated strategy for the implementation of the GKNP management plan, the thematic programmes, and individual activities, through strategic guidance and integration of all partners' inputs	X	X	X	X								
2.4.1.	Including consultation with the TGS' BSC and further coordination forums, in the development and validation of the GKNP's management plan	X	X	X	X								
2.4.2.	Engaging the OIPR in knowledge and experience exchange and in consultations, in the implementation and monitoring of the GKNP's management		X	X	X	X	X	X	X	X	X	X	X
2.4.3.	Developing and implementing a joint TGS transboundary strategy for achieving the TGS' objectives and vision		X	X	X	X	X	X					
3.1.1.	Develop specific action plans, for best adaptation of livelihood options, based on the priorities of each community, through the CLDMCs, and provide related support and capacity building.	X	X	X	X								
3.1.2.	Support the shift of communities to sustainable livelihoods and economic activities; implementation of pilot projects; training trainers	X	X	X	X	X	X	X	X	X	X	X	X
3.1.3.	Create permanent job opportunities for community members (men and women) to participate in the GKNP's workforce (eco-guards, rangers, auxiliary services, benefit sharing agreements).			X	X	X	X	X	X				
3.1.4.	In the long-term, and pending on the feasibility of developing eco-tourism in the GKNP, training and engaging community members in eco-										X	X	X

	tourism guiding and other tourism management activities												
4.1.1.	Developing and implementing a detailed law enforcement plan, that is based on multi-sectorial cooperation, with focus on close collaboration with the local communities, as well as on cross-border coordination	X	X	X	X	X	X	X	X	X	X	X	X
5.1.1.	Developing and implementing a detailed biomonitoring and research plan, to complement key identified knowledge gaps, research needed, and on-going bio-monitoring requirements, to improve the management of the GKNP		X	X	X	X	X	X	X	X	X	X	X
6.1.1.	Developing and implementing a detailed plan for the rehabilitation, construction, installing and maintenance of infrastructure required for enabling the operationally effective implementation of the GKNP management			X	X	X	X	X	X	X	X	X	
6.2.1.	Developing and implementing a detailed plan for the procurement, installing, and maintenance of equipment required for enabling the operationally effective implementation of the GKNP management		X	X	X	X	X	X	X	X	X	X	X
6.3.1.	Identifying, prioritizing, and mapping, through extensive consultations, essential infrastructure and services needs for the communities; Collaboration with relevant line ministries, agencies, local authorities and partners, in addressing the essential needs identified	X	X	X	X	X	X	X	X	X	X	X	X
7.1.1.	Developing and implementing a detailed awareness and education programme, to support achieving the GKNP objectives	X	X	X	X	X	X	X	X	X	X	X	X
7.2.1.	Developing and implementing a detailed communication, visibility and advocacy programme, to support achieving the GKNP objectives		X	X	X	X	X	X	X	X	X	X	X
8.1.1.	Enhance the elaboration of a transboundary strategic plan for the TGS, through the BSC and with partners' support		X	X	X	X	X	X					

8.1.2.	Adapt the GKNP management plan, for its harmonization with the transboundary strategic plan, with focus on strengthening connectivity throughout the TGS landscape					X	X	X	X	X	X		
8.1.3.	Enhance cross-border cooperation in identification and response to transboundary threats to the integrity of the park and in law enforcement,	X	X	X	X	X	X	X	X	X	X	X	X
8.1.4.	Establish mechanisms to facilitate regular exchanges between the Tai and Grebo-Krahn National park, for knowledge and information exchange, and joint/coordinated capacity building and training	X	X	X	X	X	X	X	X	X	X	X	X
9.1.1.	Developing and implementing a detailed capacity building needs analysis, and accordingly a capacity building programme, addressing all key actors in the GKNP's co-management	X	X	X	X	X	X	X	X	X	X	X	X
10.1.1.	Developing and implementing a detailed administrative management and human resources plan, for enabling the effective management of the GKNP	X	X	X	X	X	X	X	X	X	X	X	X
11.1.1.	Developing and implementing a detailed financing plan and budget, for enabling the effective management of the GKNP, and smooth implementation of the GKNP management plan and thematic management programmes	X	X	X	X	X	X	X	X	X	X	X	X
12.1.1.	Developing and implementing a detailed eco-tourism potential feasibility analysis					X	X	X	X				

Annex I: Bibliography and Documentation

- Gazettement package and annexes
- Baseline studies
- IMET
- Bangura, K. 2020. Grebo-Krahn Management Plan Consultations Inception Report
- Bangura, K, et al. 2020. GKNP Management Plan Validation process documentation

Annex documentation to be added to final version