



**Wild Chimpanzee Foundation®**

**WCF Siège & Secrétariat**  
69 chemin de Planta,  
1223 Cologny, Switzerland

**WCF Head office**  
c/o Max Planck Institute for  
Evolutionary Anthropology  
Deutscher Platz 6,  
04103 Leipzig, Germany

**Internet:** [www.wildchimps.org](http://www.wildchimps.org)  
**Email:** [wcf@wildchimps.org](mailto:wcf@wildchimps.org)

**West African Representation**  
23 BP 238 Abidjan 23,  
Côte d'Ivoire  
Tel/Fax: +225 02251805  
Email: [abidjan@wildchimps.org](mailto:abidjan@wildchimps.org)

**Guinean Representation**  
BP 06 Quartier Dixinn, Conakry,  
Préf. de Conakry, Guinée  
Tel: +224 623 322454  
Email: [guinea@wildchimps.org](mailto:guinea@wildchimps.org)

**Liberia Representation**  
FDA Compound, Whein Town.  
Monrovia, Liberia  
Tel: +231 (0) 880533495  
Email: [liberia@wildchimps.org](mailto:liberia@wildchimps.org)

## Annual Report 2016

### Activities of the Wild Chimpanzee Foundation for improved conservation of chimpanzees and their habitat in West Africa



**January 2017**

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# Acronymes

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BEA - Best Environmental Action

BGÉEE - Bureau Guinéen d'Etude et d'Evaluation Environnementale

CBG - Compagnie des Bauxites de Guinée

CF - Classified Forest

Club P.A.N. – Nature School Club for “People, Animals and Nature”

CPE - Cellule des Projets Environnementaux

CVI - Gold mining camp in FMC F

ESIA- Environmental and Social Impact Assessment

FDA - Forestry Development Authority

FLEGT - Forest Law Enforcement, Governance and Trade

FMC F – Forest Management Contract F (Contract d 'Amenagement Forestier F)

GAC – Guinea Alumina Corporation

GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit

IEP – Inspection des Ecoles Primaires

IUCN - International Union for Conservation of Nature

KBCA - Krahn-Bassa Conservation Area

MAP - Promoteurs des systèmes multi-agricoles

MBNP - Moyen-Bafing National Park

NGO – Non Gouvernemental Organisation

OGUIPAR – Office Guinéen de Parcs et Réserves

OIPR - Office Ivoirien des Parcs et Réserves

OMVS - Organisation pour la Mise en Valeur du Fleuve Sénégal

PGKNP - Proposed Grebo-Krahn National Park

REDD+ - Reduction of emissions from deforestation and degradation

SNP – Sapo National Park

SMART - Self Monitoring Analysis and Reporting Technology

SODEFOR - Société pour le Développement des Forêts

STBC – Société de Transformation du Bois du Cavally

TCP – Taï Chimpanzee Project

TGSFC – Taï-Grebo-Sapo Forest Complex (between Liberia and Côte d'Ivoire)

TNP – Taï National Park

VPA - Voluntary partnership agreement

WCF – Wild Chimpanzee Foundation

# Strategic Plan of the Wild Chimpanzee Foundation

| Goal                 | <i>Protection of wild chimpanzee and their habitats</i>              |   |   |   |                                 |  |                                |                                       |  |
|----------------------|--|---|---|---|---------------------------------|--|--------------------------------|---------------------------------------|--|
| Strategic Objectives | Strengthen support for conservation of chimpanzees and their habitat |   |   | Strengthen protection of chimpanzee habitat |                                 | Strengthen sustainable management of chimpanzees and habitat |                                |                                       | Research   |
| Project Objectives   | Raised Awareness   | Alternative benefit for local people    | Increase environmental interest in policy decisions | Follow population trends                    | Improved park management        | Sustainable funding for park management                      | Sustainable logging practices  | Sustainable mining practices          | Understand processes affecting population trends |
| Activities           | Environmental Education  | Alternative sustainable livelihood      | Advocacy  | Monitoring                                  | Law enforcement monitoring      | Ecotourism   | Monitoring logging practices   | Monitoring mining practices           | Research   |
|                      | Theatre  | Pilot project with community enterprise | Lobbying by decision makers                         | Impact of conservation actions              | Creation of new Protected Areas | Entrance fee   | Impact of logging practices    | Impact of mining practices            | Chimpanzee mortality study - zoonose             |
|                      | Film / Newsletter  | Training of locals                      | Awareness meetings                                  | Impact of logging                           | Park patrols                    | Animals habituation  | Best practices management plan | Mitigation and offset management plan | New monitoring methods                           |
|                      | Club Pan   | Employment for locals                   | Consultancy to promote environment issues           | Impact of bushmeat hunting                  | Management plan                 | Nature trails  | Capacity building              | Capacity building                     | Evaluating impacts                               |
|                      | Discussion rounds  | Ecotourism                              |   |   | Law application in courts       |  | FLEGT process                  | IFC Standards                         |  |

# General conclusion 2016 and perspectives for 2017

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By the President of the Wild Chimpanzee Foundation, Christophe Boesch

Sadly, the decline in the chimpanzee populations throughout West Africa has resulted in their classification by the IUCN as “Critically Endangered” in September 2016. This is perceived as a strong call for even more efforts for the WCF to help assuring their future survival. It also explains the effort WCF is investing to find areas still harboring some of the largest remaining chimpanzee populations in Liberia, as well as in Guinea, and to put them under protection.

In 2016, the WCF, besides continuing its effort to finalize the creation of the Grebo-Krahn National Park in Liberia, a plan was initiated to also create new protected areas in the large Krahn-Bassa National Forest in Liberia, as well as to intensify on-going activities for the new National Park to be created in the Moyen-Bafing region in Guinea with its outstanding number of about 5'000 chimpanzees. At the same time, the WCF has further developed its expertise in working in human modified landscapes in Côte d'Ivoire to increase responsible agricultural and logging practices in favor of enhanced chimpanzee conservation.

The main aims of WCF in 2017 are to finalize some of the above mentioned initiatives and to continue the exploration in view of protecting the still existing chimpanzee habitats in these 3 countries. We hope the ecotourism activities in Tai National Park will bear fruits and attract more tourists to this unique forest and wildlife. The fruitful collaboration with the Guinean government could result in a broad conservation plan for chimpanzee conservation, extending throughout the Foutah Djallon region in Guinea, with the aim to implement a large plan conciliating the legitimate development priorities, including mining and hydraulic dam developments, with nature conservation.

## Summary of activities in Liberia and Côte d'Ivoire

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In 2016, the Wild Chimpanzee Foundation (WCF) continued its activities in **Liberia and Côte d'Ivoire focusing on the Taï-Grebo-Sapo Forest Complex (TGSFC)**.

**Four main activities were targeted in Liberia:** 1) the creation of the Proposed Grebo-Krahn National Park (PGKNP); 2) the feasibility of a large animal forest corridor between the PGKNP and Sapo National Park, 3) the exploration of a new potential conservation area (Krahn-Bassa National Forest) and; 4) supporting the capacity building of the Forestry Development Authority (FDA).

**On the Ivoirian side of the TGSFC**, we concentrated our effort mainly on; 1) protecting the Cavally Classified Forest (CF) from deforestation and; 2) ensuring the conservation of the chimpanzees in Taï National Park (TNP), by supporting law enforcement patrols and developing ecotourism and biomonitoring in the priority areas, west of the TNP.

The 2015 **biomonitoring survey data from the PGKNP** revealed an estimated **313 chimpanzees to inhabit the PGKNP**. The results show that bush-meat hunting decreased along the border to Côte d'Ivoire in comparison to 2014, likely due to the Ebola outbreak and a reduction of Ivorian hunters crossing the border to hunt. The chimpanzee population in PGKNP remains stable, and the data helped FDA to locate areas in need of targeted law enforcement.

The **biomonitoring survey data in the Grebo-Sapo Forest Corridor** were analysed and showed an estimated population of **688 chimpanzees**. Using the wildlife and anthropogenic data, WCF proposed a preliminary boundary line for the corridor to be shared with stakeholders in 2017.

In the **priority area of Taï National Park**, approximately 500 km<sup>2</sup> around the research and ecotourism site, the recent population estimate amounts to **190 chimpanzees**. To evaluate the results, a study on quality of data collection is underway.

For the **creation of the PGKNP, the ground-truthing and flagging of the boundary line** was completed. A new boundary line was designed taking into account the needs of the local communities. Subsequently, final **community consultations** were held with all affected communities, which all signed an approval document for the creation of the park. A final **regional meeting** was held in August 2016, with the attendance of local authorities, including both county superintendents and other governmental agencies, all of which showed their approval of the PGKNP creation. The **final national consultation process** was delayed to 2017, due to delay in funding and the closure of the Senate.

The **community eco-guard program for the PGKNP** continued with two trained teams of community members supervised by FDA rangers/auxiliaries, one based in the north (Grand Gedeh) and one based in the south (River Gee). **More than 300 km of the forest were patrolled**, and the data subsequently reported using a SMART program. This prompted to the FDA to lead **target law enforcement missions** to areas of concern

resulting in the arrest of **59 poachers and the confiscation of five firearms with ammunition**. Of the illegal activities, farming was the most common with 22 people being arrested. The community eco-guards conducted **proximity sensitization** and they met with 141 people from the local communities to discuss the creation of the park and the conservation of wildlife.

In **Cavally Classified Forest, in Côte d'Ivoire**, the situation has worsened during the year with the massive infiltration of illegal farmers coming from the rehabilitation of Mont Peko. Therefore, toward the end of the year, a participative urgent action was set up and the implementation started in December 2016.

A **socio-economic impact survey** was conducted to evaluate the impact of WCF awareness-raising activities. **Results show a major increase of communities supporting the creation of the PGKNP and a 4% decrease in bush-meat consumption after participation in an awareness raising activity.**

In Liberia, WCF was mandated by FDA to explore and **evaluate the potential of the creation of a new protected area in the Krahn-Bassa National Forest**, across four counties (Sinoe, Grand Gedeh, River Cess and Nimba). An inception meeting was held to obtain the support of all stakeholders to explore the **317,977 hectares of tropical rainforest**, which includes all areas of the Krahn-Bassa National Forest that have no allocated land-use (i.e. neither community forest nor commercial logging concession). A **scoping mission** was conducted between September and November 2016 to map and identify communities and roads within 5km of the Krahn-Bassa Conservation Area (KBCA), and a **baseline wildlife survey** began in December 2016.

**Environmental education in schools around TNP** continued in 2016 with actions such as inter-school competition, amateur theatre, and animation of radio programs. Club P.A.N. was held in **5 schools**. Eco-Entrepreneurship led to the monitoring and evaluation of **5 school micro-projects such as grass cutter farms**. Winners of the Best Environmental Action during inter-school competitions received their prizes. Through a partner-school project with German and Ivorian schools, **6 school girls** with destitute parents obtained school supplies and school fees to re-enter school, and the school of Adamakro received further funding to renovate their school building.

Numerous **awareness campaigns were led in the TGSFC** in 2016. In Liberia, the eco-guards sensitized the local communities around the PGKNP throughout the year during their missions. More **than 2867 people** were sensitized this year in the Taï area: **1448 people** were sensitized by the WCF local animators around Taï; **710 people** went to visit the eco-museum in Taï; **709 people** from the neighbouring villages of Cavally CF were sensitized on forest regulation and the FLEGT (Forest Law Enforcement, Governance and Trade) process.

In the area of alternative livelihoods, the **ecotourism program** was further developed. The OIPR (Office Ivoirien des Parcs et Réservs) gave green light for the habituation of a chimpanzee community in the ecotourism zone. It started in March 2016 with the recruitment of 3 new eco-guides. Follow-up hours to habituate mangabeys and red

colobus monkeys were markedly increased, and the same is true for the chimpanzee habituation at the tourism site at Djouroutou, 60 km south of Taï. As a direct consequence of the terrorist attacks at Grand Bassam, many reservations to visit the Taï ecotourism project "Nature and Culture" were cancelled. Thus, compared to 2015, the number of visitors diminished.

In Liberia, the WCF began supporting **18 households for the sustainable development of alternative livelihoods (fish-farms)** in 2 communities near the PGKNP, but also in the town of Zwedru in Grand-Gedeh where much of the bush-meat from the park is sold and consumed. A business approach was taken with the participants, requiring them to invest a certain percentage of costs, to ensure ownership of the fish-farms. Thus far, the ponds are constructed and will all be stocked with fish shortly.

**The Mandate of WCF as an independent observer for forest management of Cavally Classified Forest** was renewed with SODEFOR (Société pour le Développement des Forêts) by a partnership agreement signed on 22 April 2016, in the presence of the Minister of Water and Forests, the Director of SODEFOR, and other personalities.

## Summary of activities in Guinea

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West African Chimpanzees (recognised as Critically Endangered subspecies by the IUCN Red List) (Humle et al. 2016) are highly threatened in Guinea by human activities such as logging, bushfires and non-sustainable agriculture. The Wild Chimpanzee Foundation (WCF) was mandated in 2015 by the Government of Guinea to undertake the necessary steps toward the **creation of a new Protected Area – the Moyen-Bafing National Park** (MBNP) - in the north of Guinea, home to the largest known West African Chimpanzee (*Pan troglodytes verus*) population in West Africa.

In 2016 the WCF, in collaboration with the Guinean Office for Parks and Reserves (OGUIPAR), has undertaken many important missions for the creation of the MBNP;

- 1) a **demographic study identified the spatial distribution and density of human settlements in 405 villages** that will allow WCF to precisely redraw the proposed limits for the Protected Area, to ensure the inclusion and protection of wildlife without negatively impacting the local human communities;
- 2) a **community consultation to explain the importance of the project was successfully received through 21 meetings in 15 sub-prefectures** across the study area;
- 3) a **Focus Group study, part of a larger socio-economic study, examined the needs of the local people and their relationships with the natural environment through 48 discussion groups in 12 villages** across the zone;
- 4) the **environmental education program Club P.A.N. was initiated in 4 schools** in the MBNP zone;
- 5) a **nest degradation study was completed** to provide a degradation rate for chimpanzee nests to better estimate chimpanzee abundance in the area;
- 6) a **pilot plant nursery was set up** as a first step towards forest regeneration and connectivity and;
- 7) a **pilot hydrological study was initiated** to monitor water-levels in the zone.

Meanwhile, some **important inter-ministerial workshops were organized** that resulted in strong backing for the project, widespread understanding of the process and agreements to initiate the **creation of a steering committee for the MBNP** and the redefinition of the mining contracts in the zone. These were some of the vital first steps towards a fully inclusive and participatory process achieved in 2016 by the WCF-Guinea team.

# 1. Activities in Liberia and Côte d'Ivoire

## 1.1 Creation of Proposed Grebo-Krahn National Park, Liberia

### 1.1.1 Mapping and flagging of the boundary line

Between the 26th May and the 12th June 2016, the FDA, alongside the WCF, Ambero/Gesellschaft für Internationale Zusammenarbeit (GIZ) and community members performed the **flagging of the PGKNP boundary line** in the Glaro District of River Gee County. This program is part of the process that will lead to the completion of the gazetttement of Grebo-Krahn National Park. In conjunction with community members from all affected communities in the Glaro District, **the team completed 30.34 km of walking to complete the flagging of the boundary line in the southern area of the park**. The boundary line in Grand Gedeh was already flagged in 2015.

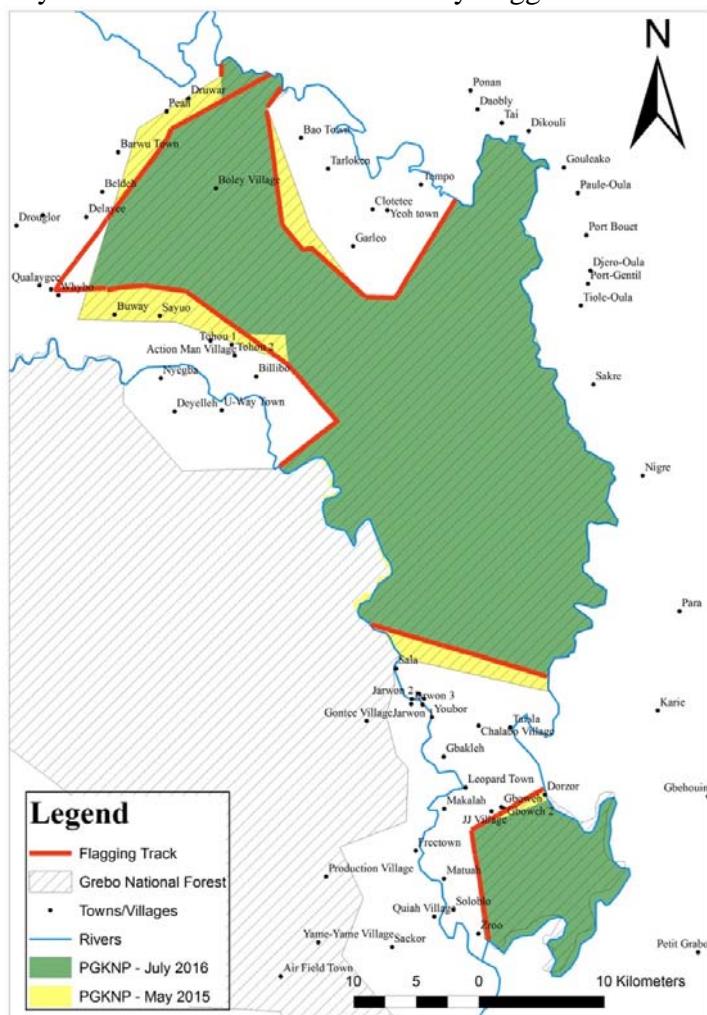


Figure 1: Final boundary lines for the Proposed Grebo-Krahn National Park, Liberia

During the flagging mission, the team walked 2.5 km per day, taking a waypoint every 250 m whilst recording a track-log of the route walked. During the mission, the team completed 13 days of data collection, and spent an additional 9 days either in meetings with the community or in transit to new sites. The team visited 7 communities which are located nearby to the boundary line and held meetings with 6 of them, to explain the work in progress.

The final shapefile of the proposed boundary line for the Grebo-Krahn National Park was then developed by FDA and WCF and is available at the FDA GIS Department. A meeting was held in Monrovia on the 23<sup>rd</sup> of June 2016, bringing together all stakeholders to discuss the results of the flagging and to finalize the boundary line to be proposed to the communities. The new boundary line is presented in figure 1.

### **1.1.2 Community consultations**

As part of the gazetttement process, as outlined in Article 9 of the Forest Reform Law of 2006, community level and regional consultations are required to keep communities and regional authorities informed on the creation of the park. In June/July 2016, following previous community consultations which had taken place in October and November 2015, final community consultations were held with all communities around the PGKNP to validate the boundary line of the park,. The aim of the meetings was to present the final boundary line of PGKNP to all communities affected by the creation of the park and to ask them to validate it. The consultations were held in various towns/villages around PGKNP in Grand Gedeh and River Gee Counties between the 09<sup>th</sup> and 21<sup>st</sup> July 2016. They were attended by four community members from each town/village (Town Chief, Chairlady, Chief Elder and Youth President), alongside the relevant Commissioners, Paramount Chiefs and county level officials. All communities, except one, signed the approval document, showing their support for the creation of the park. Follow-up meetings were held with the community that still did not approve the park. FDA is currently working with the local authorities to encourage the community to work alongside FDA.

### **1.1.3 Regional consultations**

In August 2016, a regional consultation meeting was held to validate the creation and the boundary line of PGKNP, following two previous regional consultations which had taken place in July and November 2015. The aim of the meeting was to update county level officials on the work of FDA, WCF and Ambero/GIZ since November 2015 and to present the final boundary line of PGKNP which was to be validated by the aforementioned officials, thereby validating the creation of the park. The consultation was held in the meeting room of the Administration Building in Zwedru, Grand Gedeh County, on the 26<sup>th</sup> of August 2016 and was attended by county level officials of various

ministries from both Grand Gedeh and River Gee Counties. Authorities from both counties were very supportive of the creation of the park and requested WCF and FDA to move forward with the gazettlement of the new park.

#### **1.1.4 National consultations and pre-gazettlement consultations**

At the end of 2016, WCF hired Professor John Woods, a conservation expert in Liberia, with extensive knowledge of the protected area network and the gazettlement process for new protected areas. He is currently working alongside the WCF to revise and complete the pre-gazettlement document. Weekly meetings are held to push forward the national consultation process. The national level consultation will be done at the beginning of 2017. A strategy has been put together by all stakeholders and will be presented to FDA.



Consultation meetings for the gazettlement of Proposed Grebo-Krahn National Park, Liberia

#### **1.2 New conservation area: Krahn-Bassa National Forest**

Using results from Junker et al. (2015), WCF identified the Krahn-Bassa National Forest as conservation priority area for Liberia. FDA mandated WCF to begin the baseline work for the creation of a protected area, potentially linking **two proposed protected areas (Gbi and Cestos-Senkwehn), and covering as much of the Krahn-Bassa National Forest** as possible. To launch the new collaborative project between WCF and FDA, a meeting was held on the 30th of September 2016. The main objective was to present a new project in the Krahn-Bassa National Forest to support the creation of a new protected area under FDA's Protected Area Network Strategy and to receive feedback from partners and stakeholders. At the meeting it was agreed by all participants to **explore an area of 317,977 hectares** including all areas of the Krahn-Bassa National Forest that have no allocated land-use (i.e. neither community forests nor commercial logging concessions).

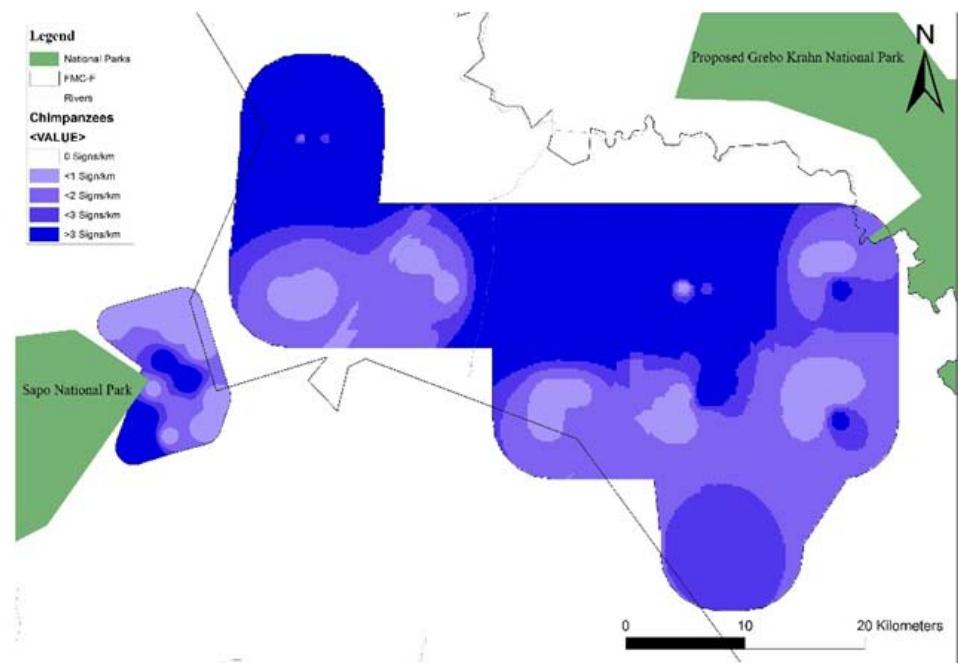
Between September and November 2016, a team of 4 persons (2 WCF and 2 FDA) spent 44 days leading a **scoping mission, taking data on all villages within 5 km of the boundary line of the now called Krahn-Bassa Conservation Area (KBCA)** and on

roads to access the forest. In total, 100 villages were found, with an overall population of 40,226. Of those, 19 are located inside the KBCA with an overall population of 9,113. This data will now be shared with the FDA, and first discussions on what the future KBCA will look like will start shortly.

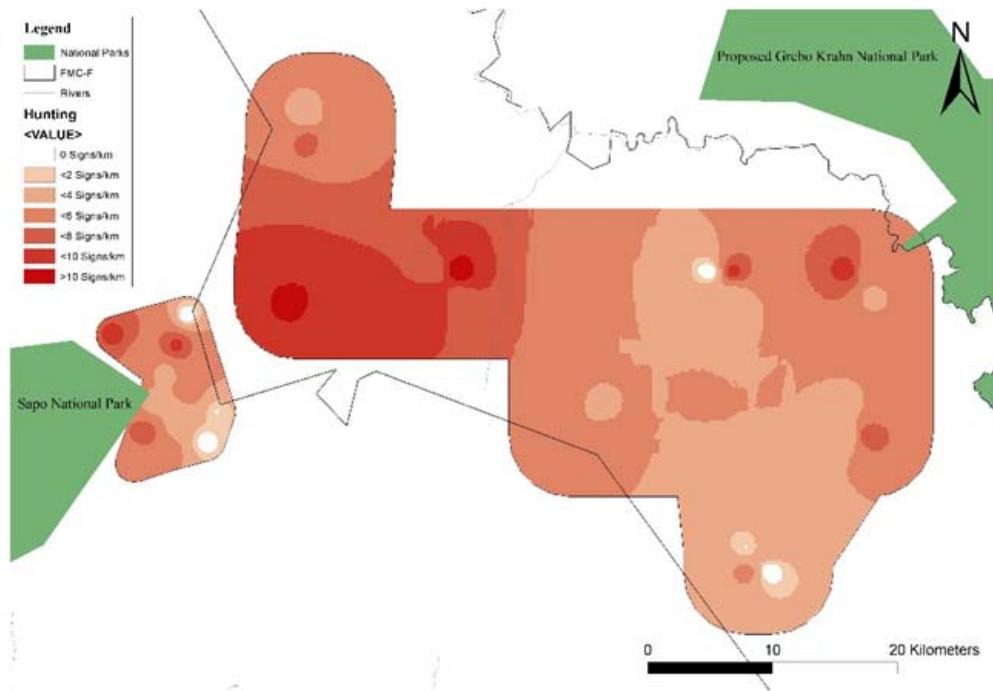
Following on from this, a wildlife survey design was created, with 135 transects (270 km). Two teams were formed so far in Grand Gedeh County, after a training workshop was held in December in Barglor Town. Biomonitoring data collection is currently going on, and will be completed in 2017. The data will help to further identify where best to place the future protected area.

### **1.3 Identifying a forest corridor between Sapo National Park and Grebo-Krahn National Park, Liberia**

In 2016, the data collected from the **baseline wildlife survey in the Grebo-Sapo Forest Corridor** were analysed. The identified corridor runs through the Forest Management Concession “F” (FMC-F) and community land in both River Gee and Grand Gedeh counties. Supervised by trained WCF staff and FDA rangers, 3 teams of trained FDA rangers, auxiliaries and community members walked 103.17 km across two systematic transect designs between the 28<sup>th</sup> of May 2015 and the 15<sup>th</sup> of July 2015. Data were collected on the presence of large mammals and anthropogenic activities such as bush-meat hunting, mining, farming and logging/pit-sawing. **A population estimate of chimpanzees in the survey area of FMC-F was calculated and provided the current estimate of 688 individuals** (Figure 2). Surprising levels of biodiversity were discovered in both FMC-F and the community corridor with signs of 7 monkey species. Signs of bush-meat hunting were found in both survey areas at such levels potentially having an impact on wildlife, higher than in the PGKNP (Figure 3). Encounter rates of activities leading to deforestation were surprisingly low for a logging concession and community land, which is a positive result. A large mining camp (CVI) is located in the FMC-F corridor and could have detrimental effects on the forest corridor. Using the data, we proposed a new boundary line for the corridor between PGKNP and Sapo NP (Figure 4). It is vital that all affected stakeholders meet to discuss the boundary lines of the corridor and the management strategies needed to maintain it. Given that the corridor falls into three different types of land-use (National Forest, logging concession and community forest) the creation of a successful corridor will be a complex and delicate process.



**Figure 2: Chimpanzee abundance in the Grebo-Sapo Forest Corridor, Liberia**



**Figure 3: Abundance of anthropogenic activities in the Grebo-Sapo Forest Corridor, Liberia**

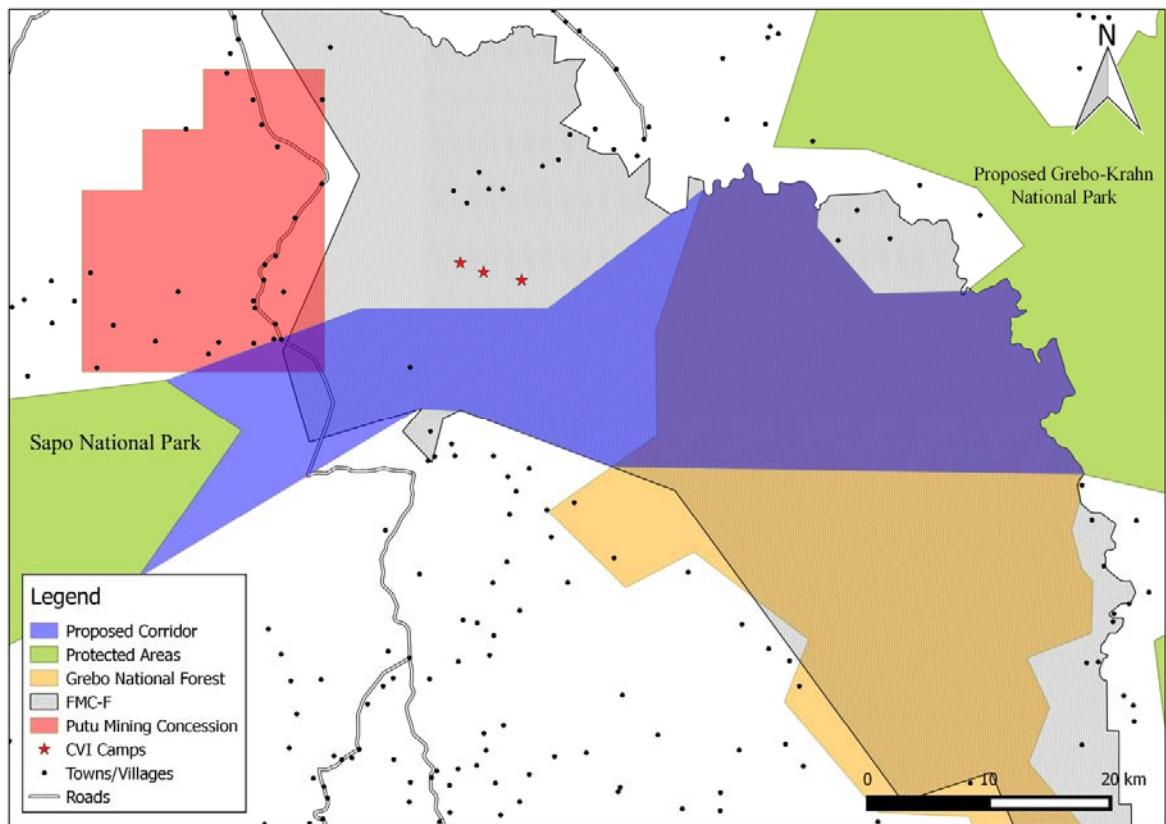


Figure 4: Preliminary boundary lines for the Grebo-Sapo Forest Corridor in Liberia

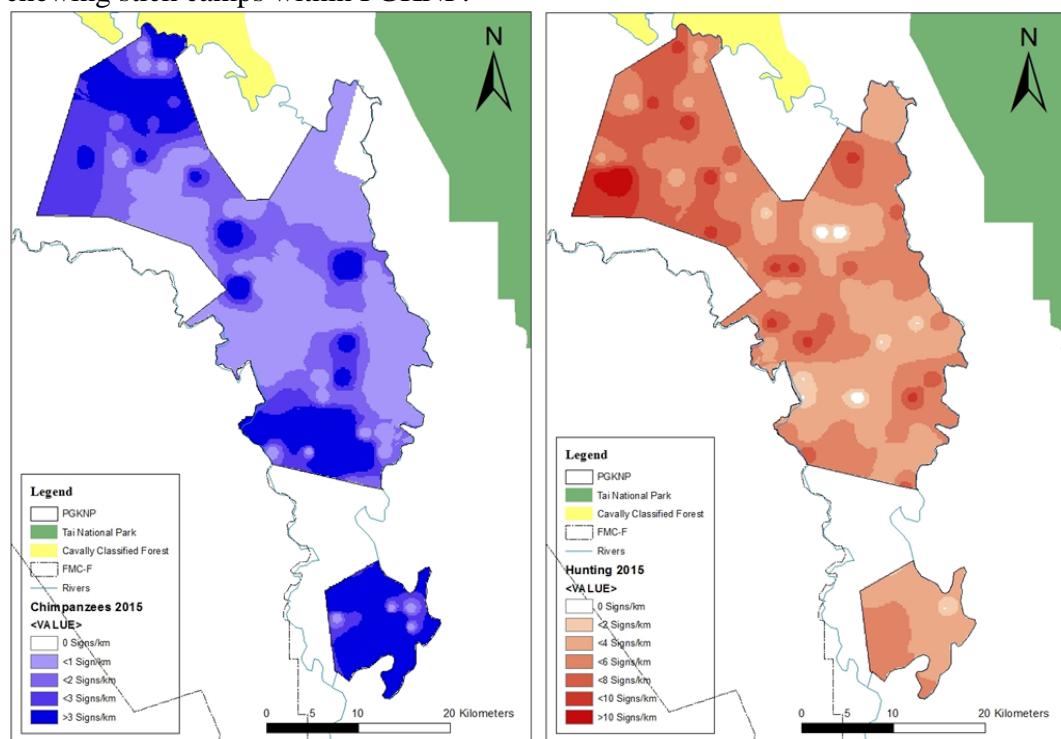
#### 1.4 Biomonitoring and law enforcement in the Taï-Grebo-Sapo Forest Complex, Liberia and Côte d'Ivoire

##### 1.4.1 Biomonitoring in Proposed Grebo-Krahn National Park, Liberia

In 2016, we analysed the data from the biomonitoring program in PGKNP from 2015. Data were collected between the 26th February 2015 and the 17th of June 2015. **A total of 249.32 km of line transects were surveyed across the park**, following the same systematic design from 2014. Data were collected on signs for presence of large mammals, bush-meat hunting and habitat disturbance (farming, mining, etc.). They were analysed to determine the current status of wildlife and threats within the PGKNP, as well as to monitor population trends.

**A population estimate of chimpanzees provided the current estimate of 313 individuals** (Figure 5). The data shows a stabilisation of the chimpanzee population as it lays within the confidence limits of the 2014 population estimate of phase 1. The isolated patch in the south of the park is a seemingly important area for biodiversity, endangered species, as signs of wildlife along the Cavalla River have increased since the first phase

of biomonitoring in 2014. The data collected on the anthropogenic activities were treated in the same way as the wildlife data. Results show a marked decrease in bush-meat hunting activity, but these results must be treated with caution as, due to the Ebola outbreak in Liberia in 2014-15, the Ivorian border has been closed and there has been a ban on bush-meat. Chewing stick harvesting signs were still high within the park, but since the end of data collection law enforcement missions have taken place targeting chewing stick camps within PGKNP.



**Figure 5: Chimpanzee abundance (left) and bush-meat hunting signs (right) in Proposed Grebo-Krahn National Park, Liberia 2015**

#### **1.4.2 Community eco-guards for Proposed Grebo-Krahn National Park**

In 2016, WCF continued to support the FDA with a community eco-guard program in PGKNP. This year, **10 missions were conducted**, only few of them during the rainy season due to the terrible road conditions that made the forest inaccessible. 6 missions were conducted in the north and 4 in the south of PGKNP. **More than 300 km were patrolled**, following the grid system. During the patrols, the eco-guard teams came across **7 traps for wildlife and 13 bush-meat hunting tents which were destroyed by the FDA supervisor**. They heard 8 gun shots and removed 503 cartridges. Moreover, **they came across 7 illegal settlements; 5 farms, 6 mining sites and 204 chewing stick harvesting sites**. These data were reported back to the FDA, using the SMART software, thereby rapidly producing reports, which the FDA then used to direct their target law enforcement (described below). During the missions, the teams encountered 110 different animals directly, including 3 chimpanzees, 7 duikers and 100 monkeys. Indirectly, they

observed 203 wildlife signs, including 86 signs of chimpanzee, 13 pygmy hippo and 12 elephant signs, and heard 91 monkey groups. Lastly, in May 2016, a one-week SMART training course was held at the WCF office in Zwedru for both WCF and FDA staff. 4 WCF and 2 FDA staff are now familiar with SMART and are helping to produce the urgently needed data analysis and reports.



Community eco-guards on field mission in Proposed Grebo-Krahn National Park, Liberia

#### **1.4.3 Law enforcement in Proposed Grebo-Krahn National Park and Sapo National Park, Liberia**

Between July 2015 and March 2016, the FDA launched a targeted law enforcement program in the PGKNP in southeast Liberia. 22 FDA rangers and auxiliaries took part in four law enforcement patrols in PGKNP, but only three of these patrols used SMART data collection methods, and the results of those will now be focused on. **The three patrols took place over a period of 13 days, covered a distance of 217 km and a total of 875 man hours** (Figure 6). The FDA teams were joined by soldiers, which provided armed support during each of the patrols.

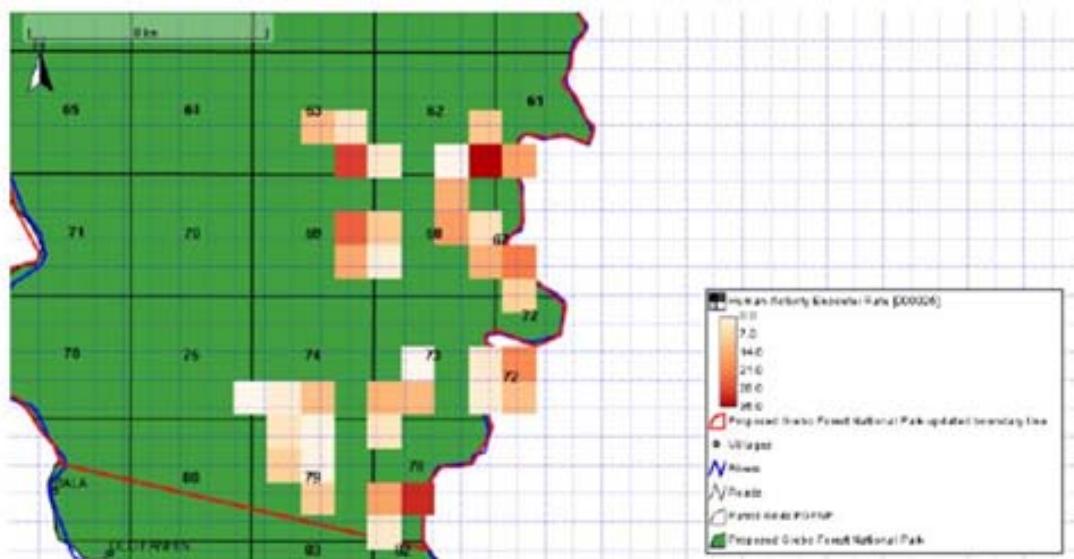
**During these patrols, 59 arrests were made and five firearms, alongside ammunition, were confiscated.** Of the illegal activities, farming was the most common with **22 people being arrested**. Other illegal activities that people were arrested for included chewing stick/root extraction (21 arrests) and mining (15 arrests). In terms of the nationality/origin of those arrested, the most numerous were from: Bilibo (18), Burkinabe (11), Ivorian (10) and 8 were from Garleo. The arrest rate during the patrols was a staggering 4.5 arrests/day during patrols.

Although positive, the results from these patrols show that PGKNP is still highly threatened by human encroachment. The targeted law enforcement program has identified new illegal activities, such as cocoa farming by Ivorian's and Burkinabe in the

southern areas of the park, but also helped to tackle the more traditional illegal activities such as mining, chewing stick harvesting and hunting.

*Map of Human Activity Encounter Rates:*

The map below shows encounter rates (signs per kilometer) of human activity in the grids that have been patrolled. The darker the red color the higher the encounter rate and the more threatened that portion of the patrolled grid is by human activity.



**Figure 6: SMART map of human activity encounter rate in parts of the Proposed Grebo-Krahn National Park, Liberia**

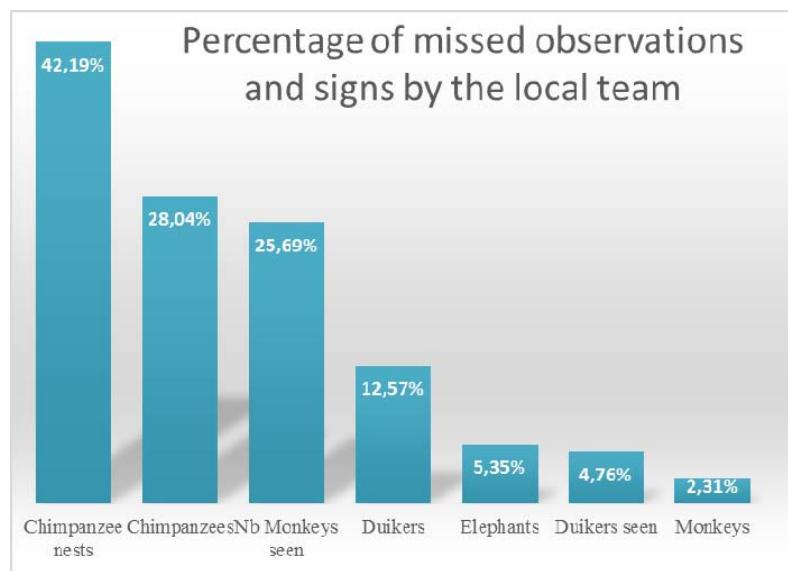
#### **1.4.4 Support to biomonitoring (anti-poaching activity) in Taï National Park ,Côte d'Ivoire**

In support of the biomonitoring program carried out in the TNP, WCF has initiated constant and continuous monitoring by maintaining surveillance activities called "anti-poaching" in the research and eco-tourism zones of TNP. A local team composed of 6 persons is trained by WCF since 2008 to collect these data. Previous WCF studies in collaboration with the OIPR showed the positive effect of the permanent presence of these agents or researchers (OIPR, WCF or Taï Chimpanzee Project) on the abundance and density of animals in these priority areas. Therefore, in 2016, WCF supported OIPR to increase law enforcement patrols in this part of the park with over **520 km<sup>2</sup>** in which **191 transects were surveyed**.

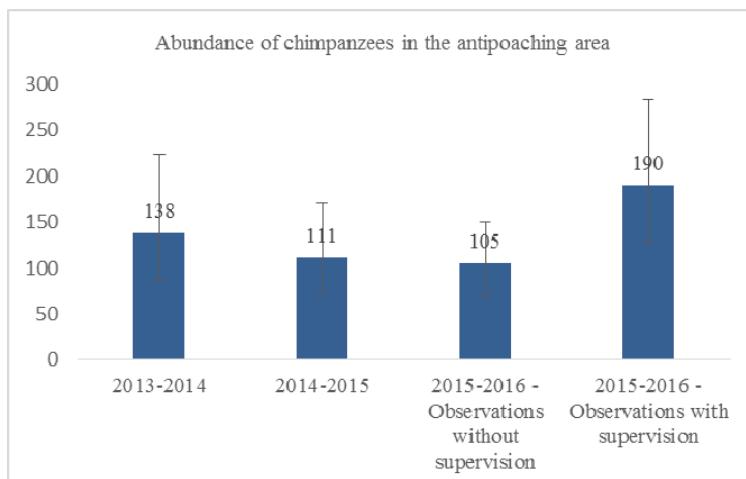
The data for the 9<sup>th</sup> phase were recorded between November 2015 to July 2016 and the data for the 10<sup>th</sup> phase started to be recorded October 2016 and will end towards June 2017. Since the 9<sup>th</sup> phase, the WCF set up a study on data quality control to understand what particular conditions could influence the quality of data collection. To that end, Maho N'Gbesso, an experienced field supervisor, organized a training workshop with the

team and was collecting the data that were missed by the local team. The analyses are ongoing and will be available in 2017.

**During their presence in the forest, the team found 28 cartridges, heard 39 gun shots and discovered 43 poacher trails.** A comparison of observations on transects between phase 9<sup>th</sup> and 8<sup>th</sup> show that illegal activities continue to decline. However, during data collection, the team heard more gunshots from March 2016 onwards, after a declaration was made by the Ivorian Government that there were no more cases of Ebola in Liberia. Preliminary analyses on supervision revealed that chimpanzee nests represent the signs most frequently missed by the team with 42% of missed signs. This affects the determined chimpanzee abundance (Figure 8). The confidence interval is too large to detect a significant difference with the previous years.



**Figure 7: Percentage of missed observations of the different animal species by the team, later detected by the supervisor in the quality control**



**Figure 8: Chimpanzee abundance in the Taï area compared between the years, and for 2015-2016 with and without quality control**

#### **1.4.5 Improving the management of Cavally Classified Forest, Côte d'Ivoire**

Cavally Classified Forest (CF) is one of the last remaining natural forests in Côte d'Ivoire. Of the 234 Ivorian Classified Forests, only 2 remain relatively intact, i.e. Cavally and Yaya CF, as revealed by a recent study from the REDD+ office in Côte d'Ivoire. However, the massive deforestation which already degraded 100% of Goin-Débé CF, where we were working a few years ago, is threatening Cavally CF. WCF did an important lobbying to raise this forest as a priority in 2016. However at the same time the forest was highly infiltrated again by migrant farmers and many illegal farmers from Mont Peko who were displaced in July 2016. We were not able to monitor the presence of chimpanzees this year, but we had regular information on their presence. We warned the government that the forest is about to disappear if immediate actions are not undertaken to rehabilitate it. From September to December 2016, SODEFOR organized different meetings to set up an **urgent action plan for Cavally CF**, and finally the implementation of this action plan was launched in December 2016.

A first workshop was held on the 1st of September 2016 at the General Direction of SODEFOR in Abidjan, as part of a dialogue between the actors involved in the management of Cavally CF, with the aim to define strong actions to be taken in the coming months. The workshop was attended by 35 people, including the Prefect of Taï, an officer of the national gendarmerie, SODEFOR, WCF, STBC and members of the CF neighbouring population. This meeting was chaired by the General Director of SODEFOR whose first words were that the rehabilitation of Cavally CF was a top priority for SODEFOR, and therefore no plantation would be accepted in this forest. Every participant recognized that saving Cavally CF from deforestation means also protecting the Taï-Sapo Forest Complex: If Cavally CF keeps being invaded, migrants will continue towards TNP and PGKNP and the forest block will disappear. Major security problem and corruption in/around the forest are slowing down any initiative. The General Director proposed to organize a major public awareness before an important mission with the National Security Council. 9 forests were identified (Cavally CF; the block of Songan/Tamin/Mabi/Yaya CF, the block Beki/Bossematie (transboundary corridor with Ghana for elephants), Dassioko sud and Yapo-Abbé). The specific action plan for Cavally CF was finalized in December and was launched quickly afterwards.



**A workshop to plan an urgent action to save the Cavally Classified Forest, Côte d'Ivoire**

**To protect forest resources and prevent new illegal infiltration into the Cavally CF, law enforcement missions have been organized with the local populations.** These missions identified illegal activities (constructions of shelters, plantations, etc.) and signs of animals such as chimpanzees, endangered species classified according to the IUCN (International Union for Conservation of Nature). People cutting forest or poaching were arrested by agents and plantations were destroyed to promote the regeneration of the forest ecosystem. In 2016, The SODEFOR rehabilitated 831 ha of the Cavally CF; they were accompanied by eco-guards (young people from the surrounding villages trained to collect data). Although SODEFOR's actions in 2016 were not able to counteract the new deforestations in the forest, the implementation of the new action plan will, in 2017, reinstall its authority. We hope the chimpanzees have survived this bad period and that we will be able to monitor their presence again in 2017.

**In 2016, a coalition of 4 NGOs in favour of Cavally CF conservation became active.** The two local community-based NGOs, NOFNA (Notre Forêt, Notre Avenir) and OPRFT (Observatoire pour la protection et la reconstitution de la faune et de la flore tropicale) started more sensitizations, such as, in November 2016, an official protest sit-in for 3 days against the illegal infiltration into the Cavally CF. WCF began to support these two NGOs, and in 2017, a joint work program and capacity building will strengthen the impact of field actions to protect Cavally CF. Another NGO joined this coalition in December 2016: the NGO IDEF (Initiative for Community Development and Forest Conservation). In 2017, they will receive a small grant to support law enforcement patrols and to increase communication towards the rehabilitation of Cavally CF. WCF supported the civil society as a resource person in the context of the multi-stakeholder negotiation of the VPA (voluntary partnership agreement) / FLEGT in Côte d'Ivoire and in the process of drafting the implementing texts of the new forest code involving all stakeholders. In this context, WCF regularly participates in civil society meetings.



Intervention/sit-in of the local NGOs in the forest (left) and the coalition of the 4 NGOS: WCF, OPRFT, NOFNA and IDEF for the conservation of Cavally Classified Forest (cc. Eburnie Today of November 4<sup>th</sup> 2016)

## **1.5 Environmental education in the Taï-Grebo-Sapo Forest Complex, Liberia and Côte d'Ivoire**

### **1.5.1 Environmental awareness in Liberia**

In Liberia, proximity sensitization is done by the WCF community eco-guard teams to encourage local community members to discuss the PGKNP. **More than 150 people attended the different meetings.** During the meetings, the eco-guards discussed everything related to the creation of the park; that the forest is there to provide refuge for the wildlife, that communities need to stop bush-meat hunting, and that they should not allow people to make new farms there. The main concerns by the participants were related to the boundary line of the park, but also to their desire that the forest remains for the benefit of their children. They requested support from the FDA for micro-projects to raise livestock, for the FDA to employ the youth to work in the park, as well as for the FDA to help improve the road conditions.

### **1.5.2 Club P.A.N. in Côte d'Ivoire**

During the 2015/2016 school year, **WCF has selected 5 schools around the TNP: Gouléako, Sakré, Ziriglo Adamakro and Petit-Tiétré with 262 children participating.** The selection of these 5 schools was based on the existing school micro-projects and partner-school projects to maintain WCF's presence in these sites. The activities began on November 19th 2015 with the permission of the Sous-Prefet of Tai. Then, the teaching sites, i.e. the outdoor nature class rooms, were rehabilitated and the Club P.A.N. program started with its 12 sessions and the pre-/post-evaluations.



**Teachers trained for the Club P.A.N. program in Côte d'Ivoire**

**Evaluation results show that Club P.A.N. children increased their knowledge by 67% on the average.** Club P.A.N. children already showed a positive attitude towards nature in the pre-evaluations, and this attitude became more positive in the post-evaluations. All children want to avoid eating bush-meat in the future; this is a great sensitisation result of our environmental education program. For the active conservation session, all 5 schools decided to plant trees to increase natural shade in the schoolyard. In

total, **150 plants of teak (*Tectona grandis*) and brown salwood (*Acacia mangium*) have been planted by the Club P.A.N. children**. At the end of the Club P.A.N. program in June 2016, the parents' days took place in 4 schools, except Ziriglo, and were a great success. Parents and villagers were able to see all of the animations, small theatres, and summaries of the sessions presented in form of songs, poems, plays and games. On average each of the four events had around 490 spectators. **In total, we have reached around 1950 villagers and parents**. We stopped the nature clubs in Côte d'Ivoire for 2016-2017 because of lack of funding, but also to lobby in 2017 for the national ministry of education to include environmental education into the primary school curriculum.

### **1.5.3 School micro-projects in Côte d'Ivoire**

The micro-projects developed in schools by WCF in cooperation with CPE help stimulate the consumption of livestock meat and aim to educate children in sustainable agriculture as an alternative to illegal bush-meat hunting, consuming and/or selling. During the school year 2015-2016, local CPE coordinators visited the farms once per week to control and motivate the school. The snail farm of Sakré was abandoned because of the low income. The schools of Adamakro and Ziriglo, with the goat and chicken farms were successful. In less than two years, they gained at least a 100'000 CFA (~150 EUR).



**School chicken farm in Ziriglo**

**Table 1: School micro-projets in Côte d'Ivoire**

| Schools     | Date of creation | Livestock                           |            |                            |   |
|-------------|------------------|-------------------------------------|------------|----------------------------|---|
|             |                  | Livestock                           | Income     | Details to income          | State   |
| Ziriglo     | 2014             | 1 cock, 12 chicken and 32 chicks    | 145000 CFA | Chicken and eggs were sold | Well managed                                    |
| Para        | 2014             | Goat: 4 males and 6 females         | 0          |                            | Well managed, but high mortality of young goats |
| Adamakro    | 2014             | Goat: 8 males and 7 females         | 110000 CFA | Sale of 3 goats            | Well-managed                                    |
| Petit-Tiéme | 2007             | Grasshooper: 5 males and 11 females | 0          |                            | Well managed                                    |

#### **1.5.4 Partner-school project**

The long-term partner-school-project between Club P.A.N. schools in Côte d'Ivoire and German schools has resulted in the Club P.A.N. program happening in Petit Tiémé and Adamakro. We would like to thank the Kepler Gymnasium Leipzig and Humboldt Gymnasium Werdau for making this environmental education project possible! In addition, due to donations from the Kepler Gymnasium, six girls from poor families were enrolled into school in the Taï region. School fees, uniform, books and materials for these girls were financed by their friends. The school of Adamakro received funding to continue the construction of a new school building with two class rooms from their partner school in Werdau, improving the situation for the children in overcrowded rooms.

#### **1.5.5 Awareness in the Taï eco-museum and in neighbouring villages**

Support of local communities in the region is essential for the protection of chimpanzees and their forest habitat. In 2016, WCF held **40 outreach sessions** in villages and settlements in the western part of TNP and in the municipality of Taï. **A total of 1448 people were sensitized** including 1236 men, 113 women and 99 children. All the different ethnic groups were targeted: Oubi, Guéré, Akan, Dan, Malinké, Maliens, Béninois, Burkinabè and Ghanéens. During these sessions, 921 copies of the WCF newsletters "Parole de Forêt" were distributed as well as stickers, posters and brochures. Although the majority of the participants were farmers, other social-professional categories were also present, such as students, civil servants (teachers, gendarmes, military), restaurant owners, communities or villages/women chiefs.



**Proximity awareness session around the Taï National Park, Côte d'Ivoire**

The eco-museum is located at the entrance of the town of Taï. It is as an information centre for tourists, but also for the local population, where ecotourism, socio-cultural and educational activities are offered. Tourists and local communities have the opportunity to increase their knowledge of local culture and the unique natural heritage of the region. Several awareness-raising activities are offered: playing of documentary films followed by a question-and-answer session, a brief overview of 36 years of research on chimpanzees through large posters on the walls, playful activities for high school students, and an animation with music each Friday - the market day in Taï attracting

many people. This year, **710 people went to visit the eco-museum**, among them 267 women and 443 men. Of the 710 people, 331 were children and adolescents. 602 copies of the newsletter "Parole de Forêt" were distributed, as well as 238 tourists' booklets.



**Eco-museum of Taï with local visitors and tourists**

### **1.5.6 Sensitization around Cavally Classified Forest**

Public awareness meetings were held from 28th January to 4 February 2016 in Akekro, Kéibly, Ponan and then Zagné, where a large meeting was held by the prefect of Taï in the presence of SODEFOR, WCF, STBC (Société de Transformation du Bois du Cavally), community leaders and civil society. These meetings allowed informing the population about illegal activities in the CF. A message by the Taï prefect was broadcast in 2016 on the radio in French, Baoule, Moré and Dioula, emphasizing the need to preserve the forest and asking the illegal occupants to leave Cavally CF.



**Environmental awareness around Cavally Classified Forest**

### **1.5.7 Community awareness on the forest regulation and the FLEGT process**

Awareness sessions were held to encourage communities living along the Cavally CF to become organized to better understand their rights, but also their duties, improve forest management and communication with forest managers, particularly regarding the local development. Information on the FLEGT process and Independent Monitoring was transmitted. **15 sessions were held in April 2016 in 24 villages with 435 participants.**



Awareness session in the village of Bohié

### **1.5.8 Sociological survey in Liberia**

In 2016, a second study to evaluate the impact of WCF awareness activities on the perception of local communities concerning the creation of the PGKNP and on their bush-meat consumption was undertaken in 9 villages around PGKNP. Of 151 households interviewed in 2013 (Kablan et al. 2013), 104 were revisited in 2016. The most consumed meat is bush-meat, followed by fish and livestock meat (small quantities of imported poultry). The 2016 consumption of bush-meat to that of 2013 (Figure 9) shows a significant decrease in the proportion of bush-meat (Fisher's Exact Test,  $\chi^2=6.356$ ,  $df=3$ ,  $p\text{-value}=0.056$ ).

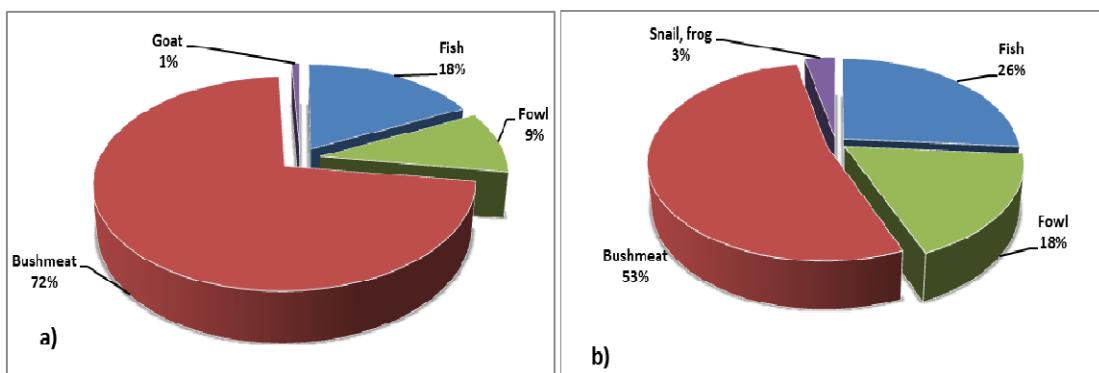
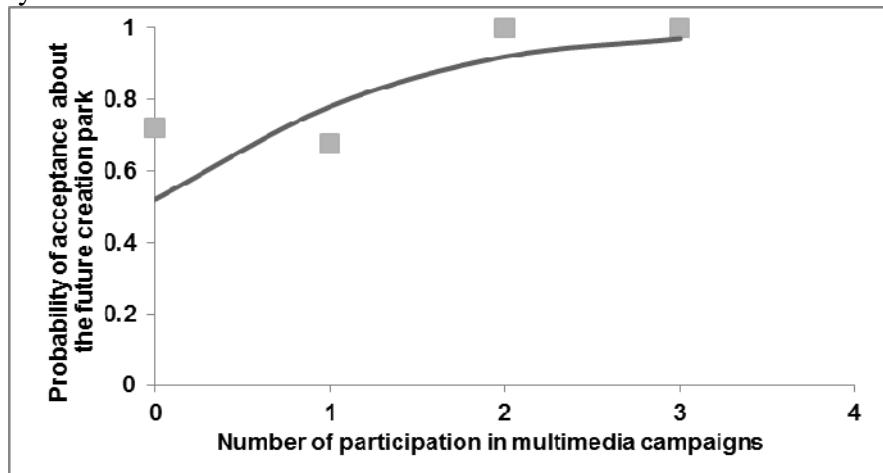


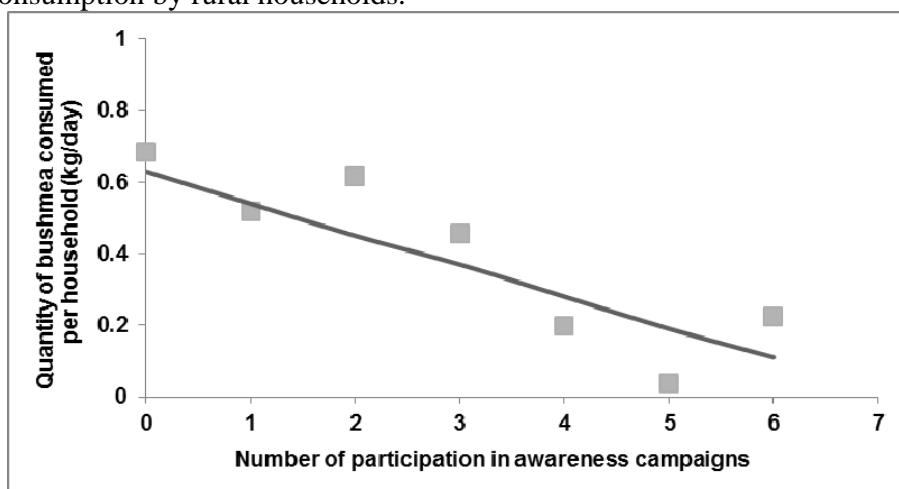
Figure 9: Proportion of animal protein consumed by people living around the Proposed Grebo-Krahn National Park in 2013 (a) and 2016 (b)

The perception of the local population related to the creation of PNPGK and protection of wildlife is positive. One of the main results is that now, in 2016, 72% of the interviewed people agree that the creation of PGKNP is of advantage to them, compared to only 18% in 2013. The probability that a person answered positively to this question increased with the number of participations in WCF awareness campaigns (Figure 10). In other words, the more households participate in the WCF multi-media awareness campaigns (theatre performances, discussion rounds, movie presentations and newsletter distributions), the more they are in favour of the creation of PGKNP.



**Figure 10: Probability of acceptance by the households of the creation of the Proposed Grebo-Krahn National Park as a function of the number of times they participated in multi-media awareness campaigns. (GLM,  $z = 2.316$ ,  $df = 104$ ,  $p = 0.020535$ )**

The frequency of participation in awareness campaigns with regard to bush-meat consumption (Figure 11) goes into the same direction as seen in Figure 10, i.e. the bush-meat consumption decreases on average approximately 4% after having taken part in an awareness campaign. Conclusively, awareness campaigns have a direct impact on bush-meat consumption by rural households.



**Figure 11: Quantity of bush-meat consumed by households based on the number of times they participated in awareness campaigns. (GLM,  $z = -2.055$ ,  $df = 104$ ,  $p = 0.0427$ )**

## **1.6 Alternative livelihoods and sustainable resource use in Liberia and Côte d'Ivoire**

### **1.6.1 Habituation of chimpanzees in Djouroutou for ecotourism**

WCF is habituating a chimpanzee community for ecotourism in the south of TNP, at the tourism site managed by OIPR. Since February 2016, Elisée Kouakou, an Ivorian volunteer, is supervising a team of 7 guides in the forest. The chimpanzee community is partially habituated. In total, 14 individuals have been identified to date (with 6 adult males, 3 adult females, 4 adolescent males and 1 juvenile male), but the habituation process still needs to be improved, as all the chimpanzees still show signs of fear when in view of humans. A maximum of 21 individuals has been seen during 2016, but the size of the community remains unknown. The guides have followed on average 17.6 days per month with an average contact time of about 8 hours per day. A hundred tourists visited the site in 2016. To speed up chimpanzee habituation and improve the tourist site management, WCF and OIPR are discussing a new agreement to be signed in 2017.



**Chimpanzees of Djouroutou**

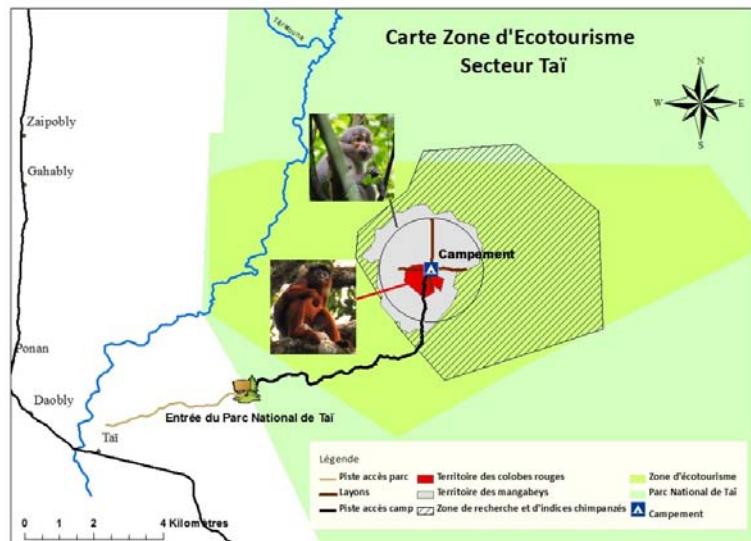
### **1.6.2 Habituation of mangabeys, red colobus and chimpanzees in Taï for ecotourism**

In the TNP, next to the town of Taï, a team of ten local women and men have been recruited and are being trained constantly. Eight eco-guides, including four young women are in the forest every day habituating 3 primate species to human presence, as well as guiding tourists through the forest. In addition, a woman and a man are in charge of the forest camp and of preparing meals for the tourists and ecoguides. In 2016, the gender equality was respected in spite of the departure of 4 ecoguides and the recruitment of 4 new team members. In May 2016, the team was joined by Benjamin Debetencourt, a French volunteer, in charge of ensuring the habituation of primates as well as the search of a new community of chimpanzees. One community of mangabeys is now habituated to human presence. They move mainly on the ground in a territory exceeding 6 km<sup>2</sup>. The objective is to identify and characterize all group members, quite a task with more than 50 individuals. Half of them are identified to date.



Mangabeys and red colobus monkeys at the Taï ecotourism site

The community of red colobus (*Piliocolobus badius badius*), arboreal monkeys, is foraging in a 1 km<sup>2</sup> territory to the southwest of the forest camp. Due to their proximity to the camp, they are easy to be contacted whenever needed. Their identification remains difficult though, because colobus live mainly in the very high canopy of trees within the dense foliage. In 2015, two males had been identified, but they were not found again in 2016, and no other individual has been identified to date. However, both these communities of mangabeys and red colobus are habituated to human presence and tourists are able to observe them easily in their respective territory.



In March 2016, the agreement between OIPR and WCF for developing ecotourism was renewed, authorizing the habituation of chimpanzees in the ecotourism area in Taï. The guides hand encountered a group of chimpanzees a few times, and many signs of their presence have been found near the camp, indicating that one or two groups are present, in the area, which is a positive point for the development of ecotourism. At the end of 2016 it was decided for the guides to concentrate on identifying/habituating the group supposed to forage to the east/south-east of the forest camp.

### **1.6.3 Community based eco-tourism**

In 2016, the community-based ecotourism project «Nature and Culture» of Taï was visited by 26 persons who experienced the forest and cultural activities in the village. Most of them were French or German and visited during the dry season. 4 trips were cancelled because of the bad state of the road leading to Taï and the «poor security reputation of the western Côte d'Ivoire», still considered as unsecured area on the websites of some embassies. Apart from these few visits, there were about fifteen requests for information that were unsuccessful, as well as 7 young backpackers passing by Taï using public transportation finding the activities «too expensive» for their budget.



**Visit of the German Ambassador in Côte d'Ivoire and tourists**

A “satisfaction questionnaire”, set up to measure the quality of services and give visitors the opportunity to improve the project, has produced encouraging results. Thus, in 2016, on a scale of 0 to 10, tourists appreciated:

- the project team, by giving them an average of 9.82,
- the stay in traditional hut in the village, with 9.50,
- food served in the forest, activities and camp accommodation scored 8.94,
- hotel infrastructure in Taï received a notation of 6.57.

In terms of overnight stays, the project recorded 12 overnight stays in the traditional huts run by the women of Gouléako, 20 nights in the hotel infrastructures of the commune of Taï, and 24 nights in the forest camp. In 2016, with these 26 visitors, the income is 1 122 600 FCFA. This amount will support the payment of 2 months' salary of the 8 eco-guides in 2017. The park entry fee of 290' 000 CFA were given to OIPR, 159 000 CFA to the women of Gouléako, who manage the traditional huts, 4 000 CFA to the village guide who developed a tourist tour of the village, 28 000 CFA to the canoe owner for escapades on the Cavally river, 326 000 CFA to the speakers of the traditional evening, and 85 000 CFA to the people of Taï who helped occasionally transporting luggage, food supply and material into the forest. In order to develop the community-based ecotourism project in the commune of Taï, one important aspect in 2016 was to increase touristic infrastructures to be able to receive at least 6 tourists at a time in the village and in the forest. Two additional traditional huts were built by the communities in the village of Gouléako-1, increasing thus the accommodation capacity from 2 to 6 tourists at a time. The traditional huts of Gouléako -1 were built in a round shape made of “Banco armé” (raw earth mixed with water reinforced by a structure of intertwined wood), surmounted by a conical roof of “papo” (Raffia palms straw), superimposed in several layers, a

typical architecture of forest areas. A second tiled bathroom has been added, consisting of two parts and provided with a minimum comfort offering ceramic toilets and a village shower, which consist of a bucket and a cup.



Traditional huts for eco-tourism (building, disposition and furniture)

The two new huts have been furnished and offer a minimum of comfort. The village craftsman has made traditional furniture made of raffia (*Raphia Hookeri*). Each hut has two "tara" (traditional bed), armchairs, a table, a wardrobe and shelves. Apart from the furniture, the three huts were provided with crockery, household linen, mosquito nets, water filters, thermos and other necessary components for tourist stays.

To ensure sustainable economic and social development of the communities, the community-based ecotourism project works with three people having abilities to create handicrafts. The first craftsman living in Gouléako-1 is a sculptor. He was financially supported to build a handcraft centre, buy tools and start producing goods for sale. The handcraft centre will allow him to sell his crafts and also teach young people how to maintain the cultural heritage. A high school student from the village of Ponan, Cedric, a talented sculptor has been supported to produce small statuettes. An old gentleman named Henri joined the project and proposed some objects from the local culture. The aim is to exchange their knowledge and talent in order to contribute to the development of the handicraft of the two local ethnic groups Oubi and Guéré.



Handcraft centre and some statues made by other local sculptors

In the forest camp, the accommodations for the eco-guides and tourists have been improved to increase the number of tourists and provide better conditions for the guides. For the guides and WCF staff, 3 tents have been installed. In addition, two big additional "Safari Tents", ordered in South Africa, similar to the first one, were set up in the tourist camp. They are built on a cement base to facilitate a clean terrace and entrance to the

tent. A local carpenter has made for each tent 2 beds, a shelf and a coffee table for the terrace. In 2017, the two large "Safari Tents" will be completed with mattresses, household linen and all the necessary comfort. A larger new arbour has been built as a dinner place for tourists. With these developments, the number of tourists staying in the forest will be equal to the capacity of the traditional huts, i.e. 6 people at a time.



Arbour for lunch and dinner and one additional safari tent from South-Africa

#### **1.6.4 Micro-projects in Liberia**

This project has had many setbacks due to the difficulty in finding a qualified person to lead it. However, **we are now supporting sustainable aquaculture activities (fish-farms) in 18 households of 2 communities adjacent to the PGKNP and in the town of Zwedru in Grand-Gedeh**. The fish-farms will help the participating communities to increase their revenue and supply local markets with fish as an alternatives to bush-meat. Zwedru was identified as a key location, regardless of the distance from the town to the park, because local inhabitants rely heavily on bush-meat that is hunted in the PGKNP. Fish is difficult to find on these town markets. Two smaller communities, next to the PGKNP, were targeted after FDA suggested they receive support, as the two communities have always been very favorable towards the creation of the park. Therefore, our fish farm project was implemented in Zwedru, as was Sayuo and Peah.



Training of fish-farmers

Participants for the project were selected based on their commercial outlook, so each participant could be entrusted with a pond each as a business venture. In addition, a contributory investment venture was advocated such that WCF does not have to be the sole sponsor of the project. Successful participants were expected to contribute a certain percentage of the required investment as a joint sponsor of the project (ranging from 30-50%, depending on means). This is expected to develop a sense of responsibility and ownership of the fish farming business in each participant. A total of 17 people were selected as successful participants; 7 people from Sayuo community, 5 people from Peah and 4 people from Zwedru, after completing a one-week training course in Zwedru.

A cat-fish hatchery has been set-up and Tilapia fingerlings will be bought from the nearby Douyee fish-farm. Because access to fingerlings, aqua-feed (fish-feed) is critical to ensure a healthy fishpond, an agreement has been made with a personal manufacturer in Monrovia, whereby he ensures the production of fish-feed at the rate needed for the project. In addition to this, to minimize cost of the feed, the local brewery in Monrovia is donating its waste products (barley, etc.) which are important ingredients. A comparatively heavy duty pelleting machine capable of producing 80kg fish-feed per hour was procured to support the project's fish-feed requirement.

A new Liberian Aquaculture Expert has been hired who will ensure longer-term support to the project and its participants. By the end of the year, all ponds should be stocked, and feed produced for the quarter, with a first harvest foreseen by March/April2017. It is at this point that we will be able to work with the farmers on their marketing/pricing to ensure they receive a benefit for the fish produced. As time goes on, we will be able to measure the impact of the project on the communities and their bush-meat/fish consumption; bush-meat hunting levels in the PGKNP; and the communities' support to conservation activities in the region.



**Repair of fish ponds in Zwedru**

#### **1.6.5 Study on the benefits of forest preservation**

To convince local communities and policy-makers to invest and preserve Cavally CF, a new PhD student was recruited. The objective of the study is to analyse the role of the CF in the local and national economy, as well as for the well-being of the local neighbouring communities. A first survey was executed from the 3rd to the 28<sup>th</sup> December to **interview 450 people in 29 villages and camps next to the Cavally CF**. Results of this study will

be available in 2017. A questionnaire was subdivided into four chapters. These chapters dealt with the socio-economic aspects of the interviewees, their temporal perceptions of forest conservation, their relationship with the forest, and the ecosystem services linked to the presence of the forest.



**Interview and meeting in a village**

### **1.6.6 Sustainable forest management in Côte d'Ivoire**

WCF has signed a new partnership agreement with SODEFOR on 22<sup>nd</sup> of April 2016 for a collaboration on law enforcement patrols and a mandate to WCF to execute a program of independent forest monitoring for 3 years in Cavally CF. This agreement was signed during a ceremony with the presence of the Minister of Water and Forest.



**Participants at the signing ceremony of the Partnership Agreement, with the Minister of Water and Forests, General Director of SODEFOR and WCF**

During the first phase of the independent forest monitoring (February 2014 - May 2015) in Cavally CF, many malfunctions (technical and administrative) as well as violations of forestry regulations were observed. A meeting of stakeholders for the sustainable management of the CF was held in May 2016 and resulted in the adoption of corrective

measures to find solutions to dysfunctions. These measures serve as a basis for continuing independent observation. A capacity building workshop for SODEFOR fieldworkers took place from in June 2016 to overcome the deficiencies observed in the first phase and to find solutions to observed dysfunctions.



**Field training for SODEFOR agents**

The Independent Monitoring mandate given to the WCF by SODEFOR through the partnership agreement enables WCF to involve other actors to conduct independent forest monitoring missions, particularly the neighbouring communities. 7 people had already been selected and trained in Phase 1 of the project. Their theoretical and practical knowledge was reinforced by training in June 2016.

**WCF executes independent forest monitoring program and conducted three independent monitoring missions in 2016**, including two joint missions and one autonomous mission. These missions were all conducted with the presence of members of the communities trained to collect precise information.

- Autonomous independent observation mission with the members of the communities bordering Cavally CF took place from 18 to 25 July 2016. The capacity buildings of the communities on the control of the computer tool and on the reporting were done.
- Joint mission with SODEFOR's Technical Direction - The mission took place from 26 to 30 July 2016 and aimed to follow up the partnership agreement between the STBC operator and SODEFOR (implementation of recommendations formulated in 2010 and appended to the Partnership Agreement, implementation of the corrective measures adopted in May 2016 and analysis of the STBC Annual Program of Activities 2016).
- Joint mission SODEFOR Forestry Control Service- The mission took place from 16 to 20 August 2016 and aimed at implementing one of the corrective measures concerning regular control from SODEFOR. The mission concerned the proper

execution of the logging contracts and effective application of the logging rules for a sustainable management of Cavally CF.



**Verification of a strain by Community Independent Observers**

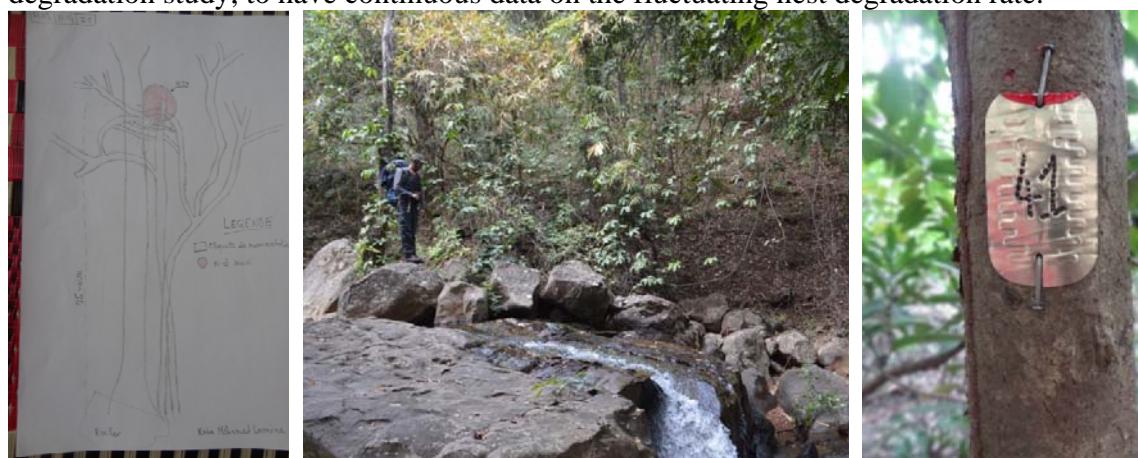
Following analysis of the management documents and conducting independent monitoring missions, WCF prepared a summary and 2 independent monitoring reports:

- A brief note covering the period from May 2015 to May 2016, period between the formulation of recommendations following the observed malfunctions and the adoption of the corrective measures;
- An independent monitoring report on the joint mission SODEFOR Technical Direction - WCF;
- An independent monitoring report on the joint mission of the Forestry Control Service SODEFOR – WCF.
- An exchange meeting on the changes and improvements induced by the independent monitoring on the behaviour of the various stakeholders responsible for the management of Cavally FC (STBC and SODEFOR) was organized on 02 September 2016 in order to obtain an initial assessment of the these two years of actions in Côte d'Ivoire. Exchanges that took place during this meeting allowed to improve the balance sheet prepared by WCF. These reports were discussed internally with SODEFOR at the beginning of October and the content was validated. They will be published in 2017.

## 2. Activities in Guinea

### 2.1 Nest degradation study in the Moyen-Bafing National Park

To convert chimpanzee nest estimates into chimpanzee abundance estimates, two rates must be included in the calculation: the nest production rate and the nest degradation rate (Laing et al. 2003). Due to variations in yearly and regional climate conditions in Guinea, it is necessary to update the nest degradation rate in the Moyen-Bafing National Park (MBNP) area. This ensures that changes in climate and weather are taken into account in our chimpanzee population estimates. The methodology required the team to identify fresh nests (one or two days old), marking the trees and drawing a diagram that helps to identify each particular nest during the re-visits (this was important, given that chimpanzees could subsequently make new nests in these trees, and given that some trees already held multiple nests). As such, in December 2015 a team went into the study area and identified 66 freshly built chimpanzee nests that were re-visited and examined at varying time intervals for a period of 45 weeks. In October 2016, the last re-visit was undertaken and the data analysed give a **nest degradation rate for the area of 269 days** in 2015-16. In November 2016, a team went into the field again to begin the new nest degradation study, to have continuous data on the fluctuating nest degradation rate.



System used to ensure successful re-visits of chimpanzee nests – the position of each nest was drawn (left) and the trees were marked (right). WCF team looking for fresh chimpanzee nests for the nest degradation study in the Moyen-Bafing National Park study zone (middle).

### 2.2 Biomonitoring in the Moyen-Bafing National Park

In 2016 four teams were sent into the field to undertake new biomonitoring missions. These started in December 2015 and finished in March 2016 with 30 ‘ecologists’, cooks and drivers working together to collect the data across the large study area. Here we present the results of two biological surveys: 1) The first one, on a larger scale, was undertaken from October 2013 to March 2014, covered an area of 8 153 km<sup>2</sup> over which a systematic design of 185 linear transects was established. 2) The second one, from

December 2015 to March 2016, covered an area of 4 288 km<sup>2</sup> and used a more stratified design of 202 transects to complement the previous results and provide more data on three specific areas of particular interest for the park creation: (1) an area on the peripheries of the Classified Forests, potentially to be referred to as the "Zone de Gestion des Ressources et Zone de Developpement", (2) the northern most area of the zone extending to the Malian border not previously covered, and (3) areas identified as potential natural ecological corridors to facilitate the movement of wildlife.

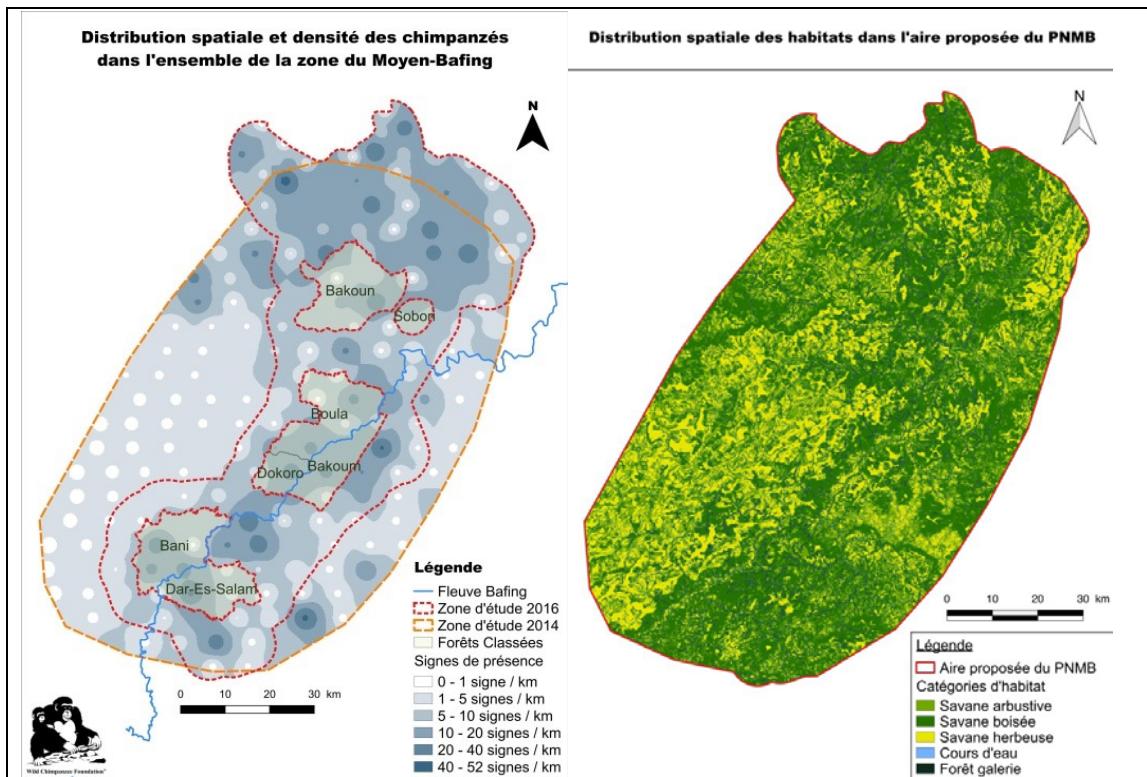


Figure 12: The left map shows the biomonitoring study area in 2014 (line in orange) and 2016 (line in red) for the creation of the Moyen-Bafing National Park with the chimpanzee spatial distribution in blue shading. The right map is obtained through the analysis of satellite images that were cross-referenced with biomonitoring. The darkest green areas represent gallery forests, followed by wooded savannah, and then shrubby savannah in light green and grassy savannah in yellow.

These results made it possible to refine and redraw the limits of the MBNP to include the highest density of wildlife, while avoiding the inclusion of human settlements in the core zone of the park. It allowed us to target areas for urgent conservation actions such as reforestation.

**The data collected in 2014 confirmed the interest in this area with a total population of 4,717 weaned chimpanzees (equivalent to 5,542 chimpanzees of all ages). The more recent data obtained in 2016 confirmed a lower presence of 4,365 chimpanzees of all ages throughout the planned MBNP, but this difference may be mainly due to the use of a more realistic nest decay rate in 2016. Only a longer time interval in following a wild chimpanzee population can provide a "realistic population estimate". The recent**

survey data shows the existence of 33 different mammal species including 4 vulnerable species, i.e the leopard (*Panthera pardus*), the golden cat (*Caracal aurata*), the hippopotamus (*Hippopotamus amphibius*), the crested porcupine (*Hystrix cristata*); and 4 near-threatened species, i.e. the bay duiker (*Cephalophus dorsalis*), the yellow-back duiker (*Cephalophus sylvicultur*), the Guinean baboon (*Papio papio*), and the Bongo (*Tragelaphus eurycerus*). The Bafing area of Guinea is clearly one of the important biodiversity hotspots of West Africa.

By comparing the data related to the natural habitats encountered during the inventories with information obtained by satellite images, a mapping of the vegetation cover of the whole study area was carried out. This method is called ground-truthing, where colours from satellite images are analysed and intersected with known habitat presences from transects data. This information will be essential for defining the boundaries of the protected area. The analysis of these two surveys showed the presence of a high concentration of mammals. Using data from 2014 and 2016, it was possible to estimate the chimpanzee populations threatened by the industrial activities that are being discussed in the area; an estimate of about 750 chimpanzees will be threatened by the creation of the "Koukoutamba" dam project led by l'Organisation pour la Mise en Valeur du fleuve Sénégal (OMVS; in English Senegal River Basin Development Authority), and an estimated 1300 chimpanzees could be threatened by potential mining activities the Société Bauxite de Dabola-Tougué Corporation (SBDT), whose concession includes two Classified Forests in their entirety in the south of MBNP.



WCF team during the biomonitoring missions in the Moyen-Bafing National Park, Guinea

### **2.3 Community consultations in the Moyen-Bafing region**

The objective of the community consultation program was to conduct a dialogue at the national, regional and local level in order to ensure the conservation of biodiversity, with a particular focus on the chimpanzee population in the Moyen-Bafing area. In 2016, the WCF worked with OGUIPAR to develop a Consultation Framework to build a common understanding and coordinated approach for consultations in support of the project decision-making processes. On the 20th March 2016, the WCF convened with OGUIPAR to develop plans for a first consultation phase in the MBNP zone that would allow the participation of various stakeholders and partners affected by this project.

The resulting 'Mission Framework' covered the following topics:

1. The geographic location of the project zone and a reminder of the presence of legally protected Classified Forests within this area along the Bafing River;
2. The existing potential in the area due to the presence of the Bafing River with its economic and ecological resources;
3. The importance of watersheds converging on the river, where various forest types occur. A discussion on ecosystem services that benefit the local populations such as food, timber and medicinal plants;
4. The high wildlife densities such as primates (chimpanzees, baboons, patas monkeys, colobus monkeys), leopards, antelopes, and endemic birds;
5. The state of forest degradation due to anthropogenic activities;
6. Details regarding the change of management that would occur in the Classified Forests with the change in status to a National Park;
7. The general importance of a Protected Area / National Park for the environment, the protection of species and natural resources, etc.

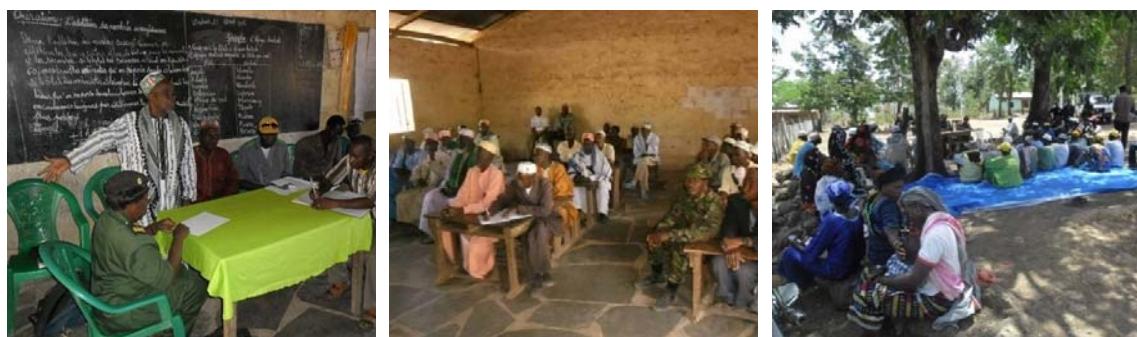
In March-May 2016 this document was used as the basis for the first consultation mission; a team of OGUILPAR and WCF representatives carried out consultation meetings in an area that straddled the 3 administrative regions of Tougué, Mamou and Dingueraye. Within these regions it was necessary to visit the thirteen Rural Communes and two Urban Municipalities that are at least partially included within the MBNP.

The team was composed of 3 multidisciplinary executives from OGUILPAR and a long-term WCF/OGUILPAR liaison. Meetings at a regional, prefectoral and subprefectural level were held, and the stakeholders invited to take part included regional, prefectoral and sub-prefectoral governors, traditional heads or their representatives as well as local leaders, NGOs and representatives of economic interest groups. This first consultative phase was considered a success with a higher attendance than expected. **In total, 2'898 people throughout the study zone were informed about the MBNP project, during the course of 21 meetings.** The majority of participants were males (94%) with the number of women varying from 0 to 9 at most, representing from 0 to 21.5% of participants according to venue, with an average of 6.2% participation for each meeting.

Several people per meeting filled in a questionnaire about their understanding and satisfaction with the information provided. They were able to make suggestions and recommendations to improve the quality of future meetings. Of those that filled in the questionnaire, 97% responded that they had received enough information, and 99% were satisfied with the contents of the presentation with comments such as “the information was communicated in a clear and convincing manner” and “I understand how important the protection of the forests and animals is and how that may help our wellbeing”.

Through an analysis of the meeting minutes, the presence lists and the questionnaire, it was possible to gain useful understanding of who was represented, how the meetings were received, and how the communities concerned would like to proceed in the future. Opinions - positive or negative - were compiled for each intervention recorded therein. These were then counted to show trends on the subjects discussed during the exchanges.

Overall, the reaction of the participants was positive with 65% of the comments categorized as such. Enthusiasm was widespread, and ideas for the management of the area were offered (e.g. taking into account conflicting needs of crop farmers and cattle breeders). There was some concern about the future and how they would be affected by the project. In the Rural Commune of Téguéréya, the Sub-prefect encouraged all the inhabitants (through the local officials present at the meeting) to support the project in the interest of sustainable management of their natural resources. In the Rural Commune of Arfamoussaya, the Imam of the Great Mosque gave a blessing for the success of this project and for the total and unconditional adhesion of the population to the process of creating this new Protected Area. The next phase of meetings will be able to reinforce the confidence of the people in the project and fully involve them in the preservation of the natural resources on which they depend.



Community consultation meetings across the Moyen-Bafing National Park study area

## **2.4 Demographic survey in the Moyen-Bafing region**

Previous to the 2016 WCF demographic survey in the MBNP study zone, the location and names of 239 villages (36 within Classified Forests) were listed. This information was not geo-referenced and with no information about the village size, needing therefore an update. Thus, to better understand the location, ethnicity and size of the populations living within the limits of the proposed MBNP, eleven teams were sent into the field to collect the relevant georeferenced and demographic data plus mapping the roads. The mission took place between the 8th of April 2016 and the 7th of May 2016, following a training period of 4 days for 25 field agents consisting of the WCF field team, OGUIPAR ecoguards and local guides. The program outlined the project methods and objectives as well as training on interview techniques, data collection, GPS use and budget management. As with the aforementioned community consultation, the study took place in the area that incorporated, at least in part, 15 sub-prefectures – an area of nearly 8'000km<sup>2</sup>. The zone was split into 11 zones that were each covered by a team of 5 agents and one supervisor. There was a WCF coordinator in the office in Labé who oversaw the project in its entirety. Using local guides, the team navigated the network of small tracks that cover the zone. The guide ensured that no villages were missed, and the study supervisors subsequently controlled for potential missing data with the use of Google maps and GQIS mapping software for which they were given additional training.

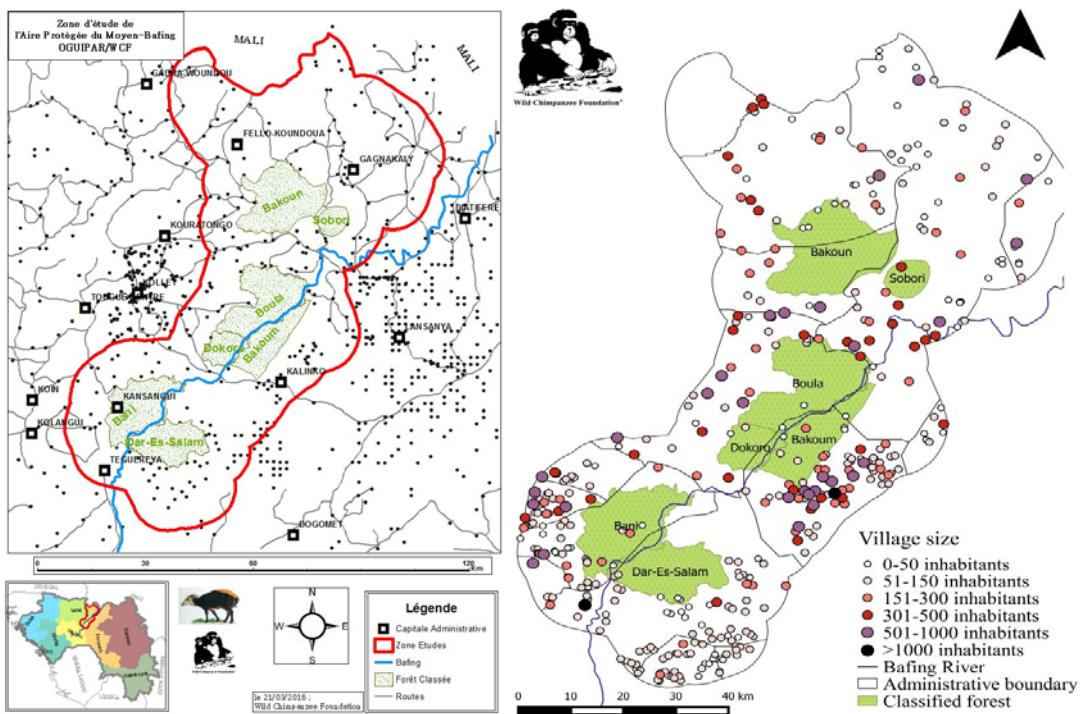
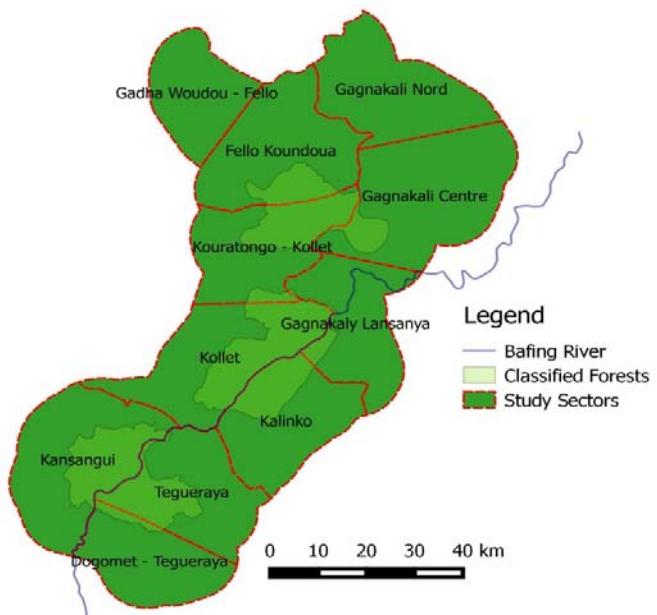


Figure 13: The left map shows data on the location of villages in the Moyen-Bafing National Park zone (outlined in red) before the demographic survey was undertaken. The right map gives more updated information such as the size of villages within the Moyen-Bafing National Park.

In each village the data taken included: the name of the village (and historic name if relevant), GPS location, type of village (e.g. town, village, hamlet, seasonal encampment), the number of houses/mosques/schools/economic groups, ethnicity and if possible whether or not the population trend over the past ten years was increasing, decreasing or had remained stable.

**Results showed that there are 405 (rather than 239) villages within the study area and that 23 of these (rather than 36) are located within the Classified Forests that already exist as Protected Areas within the study zone. The total population of the area was found to be approximately 67'431 inhabitants.** While this may seem high, the population density of the area is only 9.54 inhabitants per km<sup>2</sup>. This is lower than the overall population densities of the administrative regions that have parts of their territories in the study area, and also lower than the Guinean national population density (Institut National de Guinée). With around 0.05 villages per km<sup>2</sup>, this low population density can be explained by 70% of villages having 150 or fewer inhabitants.

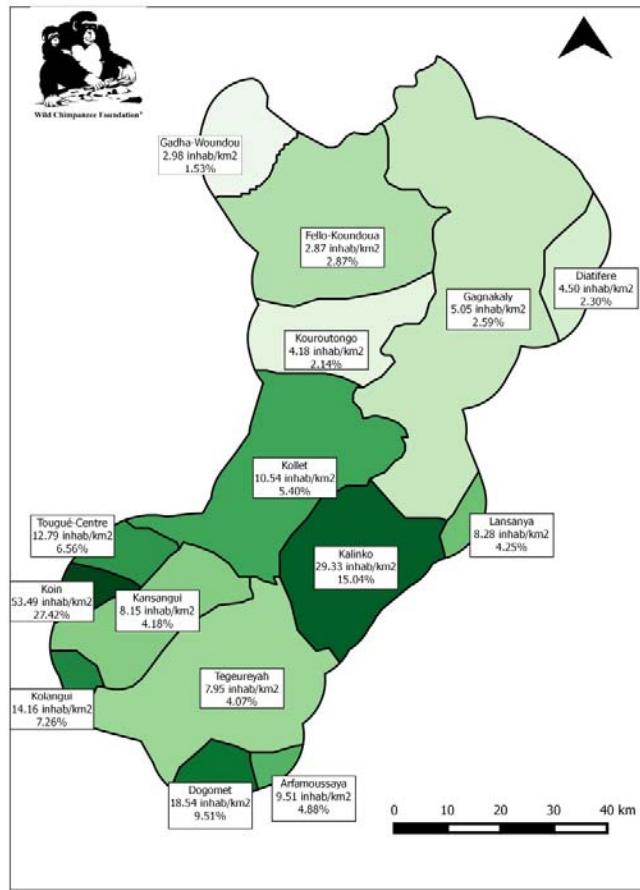


**Figure 14: The Moyen-Bafing National Park study zone divided into eleven parts.**

Of the 23 villages listed in the Classified Forests, 11 were not legally recognised and contained a total population of 1'072 inhabitants. The population density of the Classified Forests is low with 1.91 inhabitants per km<sup>2</sup>.

With regard to spatial distribution of the human population in the rest of the zone, it was found to be highly heterogeneous with areas of high concentrations of settlements – principally in the south of the study area - while other areas remained sparsely populated such as the north and within the 7 Classified Forests.

This study did not aim to establish a comprehensive economic and/or social analysis. It identified the current human demographics and interpreted its trajectory. Consequently, this study may serve as a reference for development of socio-economic studies and future activities (notably the participatory mapping exercise of the park limits), within the framework for the creation of the MBNP.



**Figure 15 : Population density and percentage of population density by sub-prefecture in the Moyen-Bafing National Park; increasingly darker shades of green as the population density increases.**

## **2.5 Focus Group Study in the Moyen-Bafing region**

To better understand the specific needs of people living in the MBNP study zone and to assess the relationship that communities have with the natural environment and towards the challenges they face, a Focus Group Study was undertaken with the following objectives:

- Provide a clearer understanding of the local populations' needs, aspirations and challenges to daily life;
- Provide information concerning potential issues with regard to the acquisition of essential provisions with decreasing access to water and other natural resources;
- Begin the participatory process through initiating discussion concerning Protected Area implementation and future management;
- Reveal disparities between the Peulh and Malinké communities and ensure that the project represents both ethnic groups (being the two most prevalent ethnicities within the region).

For the collection of such data, a qualitative approach was, in this case, most appropriate and effective, as it allowed for topics and information to emerge, as participants are permitted to shape the content of the group discussion, while the facilitator provided a level of structure to pursue a range of predefined topics of specific interest (Newing 2010). A segmentation of the participants was carried out to control the composition of each focus group and to emphasize homogeneity of ethnicity, gender and age. This approach was to help reduce potential conflicts, to allow participants to express their opinions freely, and to avoid the isolation of certain minority/underrepresented groups such as women and young people.

The WCF team considered the principle objectives of the study and subsequently broke the subject matter down into the following themes:

- Perceived environmental changes and its causes;
- Natural resource use;
- Challenges in their daily lives;
- Proposed solutions to the challenges and;
- Perceptions and attitudes towards Protected Areas.

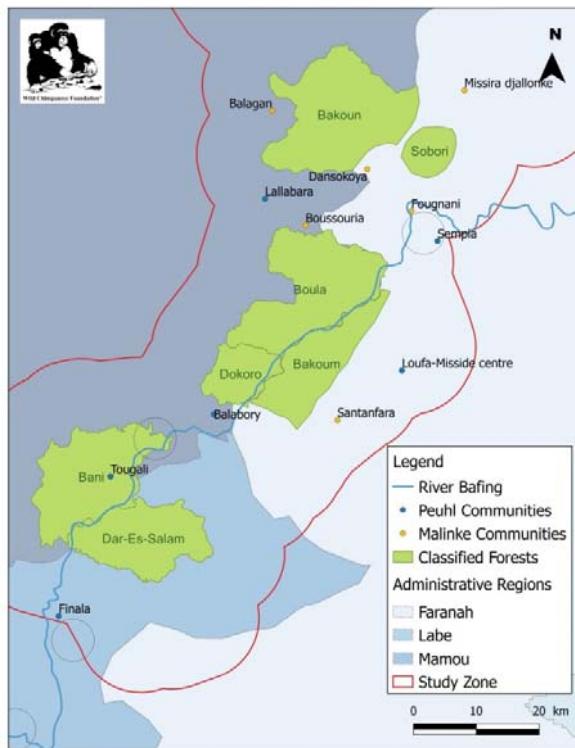
Eight Guinean sociologists were hired including three women, and a training period of five days was undertaken from the 4<sup>th</sup> April 2016. This was followed by a pilot study in a nearby community in order to ensure that the study facilitators were trained in both theory and practice of focus group study strategies. During the training period, theoretical and practical exercises ensured that all facilitators were aware of how to present the themes in a neutral way that did not influence the respondents' answers, as well as to encourage discussion and elicit information. This was necessary for the practice of time management and recording of the data through note taking. Four pilot interview sessions were carried out in Labé, totalling 29 participants. This process allowed the team to uncover certain issues, discuss and resolve them before leaving for the field.



**Focus Group Study for the creation of the Moyen-Bafing National Park**

Research in the field was carried out within the Prefectures 'Tougué' and 'Dingiraye' because a strong cultural distinction exists between these two regions. Villages were

selected according to legal administrative designation; half had been assigned the status of 'districts' and half were designated 'sectors'. In the absence of accurate demographic data at the time of the study, this was done to reduce bias in village size, as well as to control for the effects that legal designations may bestow upon the communities. The two teams undertook four Focus Groups per village in 12 villages (see map below), totalling 48 focus groups and 381 participants.



**Figure 16: Map of selected villages for the Focus Group Study, distinguished by ethnicity**

Most villages were very welcoming and the Focus Groups were nearly always filled with the maximum number of participants. The average amount of time for a Focus Group was 1.5 hours with women on average speaking a little less than men. Notes on what was said – with direct quotes – were taken in French on a data collection sheet by the facilitators and summarised at the end of each session. Subsequently, the notes that were taken were entered into the specialist software NVivo11 by the supervisors, which allowed the analysts to group the comments into topics and sub-topics with the age, gender and ethnicity of the person who said each comment. Thus, the amount of Focus Groups, people, and/or women (for example) that spoke about a specific topic could be quickly analysed. Much information was extracted from these interviews, **an overarching theme being that many communities were aware of the effect that their traditional practices had on the environment. Further, they were aware that these practices were unsustainable and that they were making environmental and, as a consequence, daily living conditions worse.** They admitted to need help in this regard as they did not know how to remedy the situation. The communities were aware that crop yield and the success of cattle herds are closely linked to environmental conditions, soil quality and availability of water, as well as favourable climate, availability of fodder, etc.

It was noted that with population growth, the need for food increases, just as increased the pressure on the environment likewise. The increase of agricultural land by deforestation was one of the solutions proposed by participants to meet the needs of the population, but they were aware that this would create a multitude of negative consequences such as the reduction of water or loss of soil fertility, making access to natural resources, increasingly disparate. To meet these challenges, communities have developed certain practices, such as the hunting of wild animals and/or crop raiders, pesticides, herbicides, and fertilizers, as well as setting bush fires to increase grazing and the development of slash-and-burn agriculture. However, they are aware that these solutions do not tackle the source of the problems and run counter to a balanced long-term practice. This information has highlighted areas of need and will be used to guide the sustainable micro-projects that the WCF plans to put in place as well as the upcoming socio-economic impact assessment. This data will be used in conjunction with a quantitative socio-economic impact assessment as part of the broader scope of the project's socio-economic program.

## **2.6 Club P.A.N. in Guinea**

At the beginning of the school year 2015-2016, OGUIPAR, in collaboration with WCF, initiated the environmental education program Club P.A.N. for the MBNP region choosing schools on the periphery of the MBNP. This program was conducted under the supervision of WCF and the Delegation of Elementary Education (DSEE) in the administrative sub-prefectures of Kollet, Kalinko and Gagnakaly. From 03 November 2015 to 21 February 2016, **486 children and many of their parents benefited from extracurricular teaching of Club P.A.N. sessions** regarding the protection of the environment, which were conducted by local teachers trained by WCF. The 'eleventh session' of awareness raising activities and conservation actions, is a practical mission undertaken by each school whereby children educate their parents. The themes for the schools in Kollet, Kounet, Keyla and Kalinko were water pollution, bush fire, deforestation and environmental pollution.



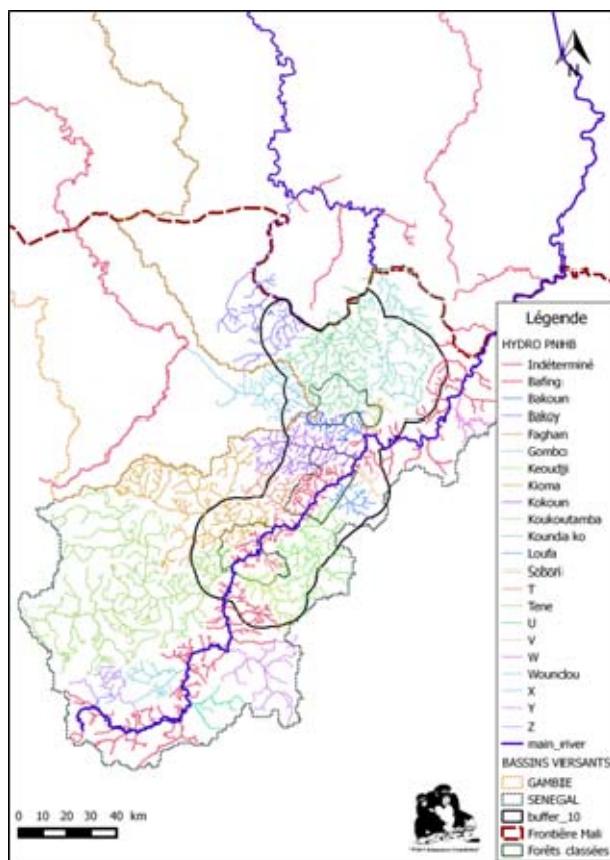
**Club P.A.N. children educate their parents about the pollution of the environment**

At the end of the program, between 6 and 21 February 2016, a 'parents' day' for each village was conducted. The 486 students performed plays, sang and danced with their parents from 9 am to 2 pm followed by a football match from 4 pm to 6 pm.

Pre- and post-evaluations of the students were conducted, whereby they were asked a number of questions to assess how well the information from the sessions had been communicated. Fifteen students per school – 60 in total - undertook this evaluation. 40 parents were randomly chosen during the 'parents' day' (evenly distributed across the 4 villages) and were evaluated through questionnaires on knowledge and behaviour. The results of the students evaluation showed an average increase in knowledge of 30% (Wilcoxon Exact Test:  $T+=52$ ,  $N=10$ ,  $P<0.01$ ). This is encouraging, as education and teacher-training levels in this remote region of the Foutah-Djallon Bafing in Guinea area very low. For future school years, WCF will need to invest more time in training the teachers in Guinea and evaluate their work through testing. There were some interesting answers in the pre-evaluation sheets. For example four children said that an endangered species is an animal which kills humans. Furthermore, nine children answered that animals are important because eating bush-meat is like taking medicine, and people can make shoes from their skin. These answers show that environmental education is urgently needed and such answers were not present in the post-evaluations. In addition, according to a questionnaire, 52% of students enjoyed Club P.A.N. 'enormously', 45% 'a lot' and 3% 'a little bit'. Moreover, parents of students in all four schools were interested in joining the Club P.A.N. initiative and its implementation program. Village communities have clearly adhered to the initiative and have promised to allow their children to follow the program on a regular basis.

## **2.7 Hydrological study in the Moyen-Bafing National Park**

Down river from its source, the Bafing River, which runs through the MBNP, becomes Senegal River, forming one of the major rivers of West Africa. The source for the Niger and the Guinea Bissau Rivers are also found in the region which holds water reserves for seven West African countries. Without ever being dry, the Bafing River has a very variable flow, depending on the season; there is an average ratio of 1 to 76 between low water (May) and high water (September). The figure below shows the resulting hydrological network that spans the MBNP zone.



**Figure 17 : The hydrological network and its various catchment areas in the proposed Moyen-Bafing National Park with the thick blue line representing the Bafing River**

One aim of the MBNP creation is to improve the water security for both nature and the human population in the region. Changes in both ground and surface water supply carry severe impacts for domestic and agricultural usage, leading to major negative effects on food supplies, health, economic and environmental losses, and social upheaval (Pavel 2003). Thus, such impacts are complex, and can be a serious threat to achieving poverty reduction and sustainable development (Chika Urama & Ozor 2010). Therefore, we initiated a monitoring system to collect data on water level to be able to follow the evolution of the situation during the implementation of the project.

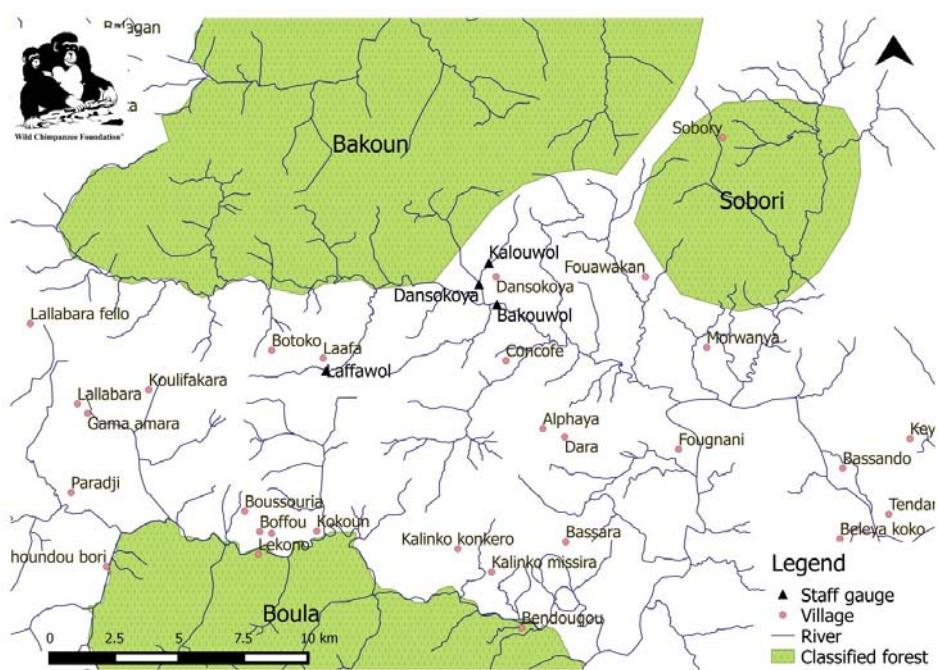
#### Study objectives:

- Installation of staff gauges
- Training of a local agent in data collection
- Collaboration with the National Directorate of Hydrology



**Staff gauge in place in the Moyen-Bafing National Park study area**

The centre of the MBNP study area contains seven Classified Forests, the pilot water-level study was undertaken in a region between the Classified Forests of Bakoun and Boula that serve as a wildlife corridor. Reforestation efforts for gallery and other types of forests in this area will aim to achieve greater habitat connectivity. The first set of gauge was situated on the rivers Bakouwol, Dansocoya, Kalouwol, and Laffawol near the villages of Laafa and Dansokoya (see map below).



**Figure 18: Placement of staff gauges (black triangles) in the north corridor of the proposed Moyen-Bafing National Park**

Water-level is an indicator that will produce data on water availability – an important issue for the region and one that forest regeneration hopes to improve. Additionally, given the simplicity of the method, WCF has been able to employ local people from the nearby villages, although they have poor access to education, to take regular measurements. Site selection criteria for the installation of staff gauges were as follows: - Site easily accessible by the observer, - No possible bank overflow, even in times of high water, - Avoids areas of large potential material displacement (typically gravel, sand etc.), - Has a stable control threshold, - If possible, the section must be broad and deep, - Eliminate external influences related to the proximity of a tributary for example. Training of the data collectors took place in the village of Dansokoya and was led by the study supervisor. The training ensured that the people undertaking the study were confident in their ability to read the staff gauges and fill in the datasheet. Data will be collected daily and the supervisor shall visit each site on a monthly basis to control for data quality.

## **2.8 Plant nursery in the Moyen-Bafing region**

Restoring degraded gallery forests and sensitive areas by and for the populations is part of the sustainable management of the forest cover to increase the forest areas on a local scale. A restoration allows most types of tropical forests to be regenerated due to their high stump sprouting capacity and seed potential at relatively low cost. Moreover, the empowerment of populations by giving them managerial control of natural resources helps to guarantee a more balanced and healthy ecosystem. With this in mind, two teams were sent into the field to collect ecologically/economically valuable seeds from gallery forests. **Around 75,000 seeds were collected.** In May 2016 a pilot plant nursery was set up in the village of Laafa situated on the river Bakoun and on the edge of a Classified Forest – an area with a high density of chimpanzees.



**Plant nursery in Laafa for the regeneration of gallery forests in the Moyen-Bafing National Park**

Two local residents were trained in its management and **30,000 seeds were either potted or were placed in a germination site under their care.** Choice of plant species depended on two factors: a policy of protecting natural resources with the objective of aiding the survival of the local fauna and the improvement of the living conditions of the local human populations. Tree species selected for the nursery were two-fold: 1- For the survival of wildlife, we selected fruit trees likely to be consumed by wildlife or used for

nesting etc. such as *Afzelia africana*, *Daniela oliverie*, *Dialium guineensis*, *Cola cordifolia*, *Parinari excelsa*. 2- For the improvement of the conditions of the local population or valuable species in anticipation of economic interest groups to profit from natural resources, we selected the following species, *Carapa procera*, *Afzelia africana*, *Dialium guineensis*, *Erythrophylum guineensis*, *Isoberlinia doca*.

## **2.9 Meetings for the creation of the Moyen-Bafing National Park**

**11<sup>th</sup> April 2016 – Inter-ministerial and stakeholder workshop with the Minister for the Environment, the Ministry of Agriculture, BGÉEE (Bureau Guinéen d’Etude et d’Evaluation Environnementale), GAC, CBG, and representatives from departments therein.** The General Director of OGUIPAR invited the Minister for the Environment – Mme Christine Hadja Kourouma Sagno – to open the meeting. The Minister made a speech in which she said that to achieve its goals, Guinea appealed to all bilateral and multilateral partners, national and international NGOs, to support the creation of the MBNP. She said that the project was needed in order to reduce the degradation of ecosystems and loss of biodiversity, as well as to fight against climate change - including drought and dwindling water reserves - which adversely affect human populations. She restated Guinea’s goals for the protection of the environment and concluded by thanking the WCF experts and partners, on behalf of the Head of State Professor Alpha Conde, for the accompanying support for the creation of this protected area for the conservation of biological diversity and the West African chimpanzee in particular. This was followed by a presentation from OGUIPAR with regards to Guinea’s national commitments and Protected Area network and the plan to use the MBNP as an offset site for mining corporations. A presentation from WCF by Professor Christophe Boesch linked the theoretical ideas from the previous presentation and with the practices that had been put in place. This was followed by questions regarding the theory and practical issues involved in the project (e.g. governance issues, management objects), explanations of how and why the site was chosen and outlines of the work currently being undertaken. In conclusion, the participants approved the completed stages and those yet to be done for the creation of the MBNP.



**Inter-ministerial meeting for the creation of the Moyen-Bafing National Park with the Minister for the Environment (right) in April 2016**

**At the 13th April 2016, the President of the WCF, Professor Christophe Boesch had an audience with his Excellency, Mamady Youla, the Prime Minister of Guinea** during which, he presented the high value of the MBNP and the threats as well as the importance of the creation of a Conservation Trust Fund for a long term management of the new park. The Prime Minister demonstrated his support for the creation of the MBNP.



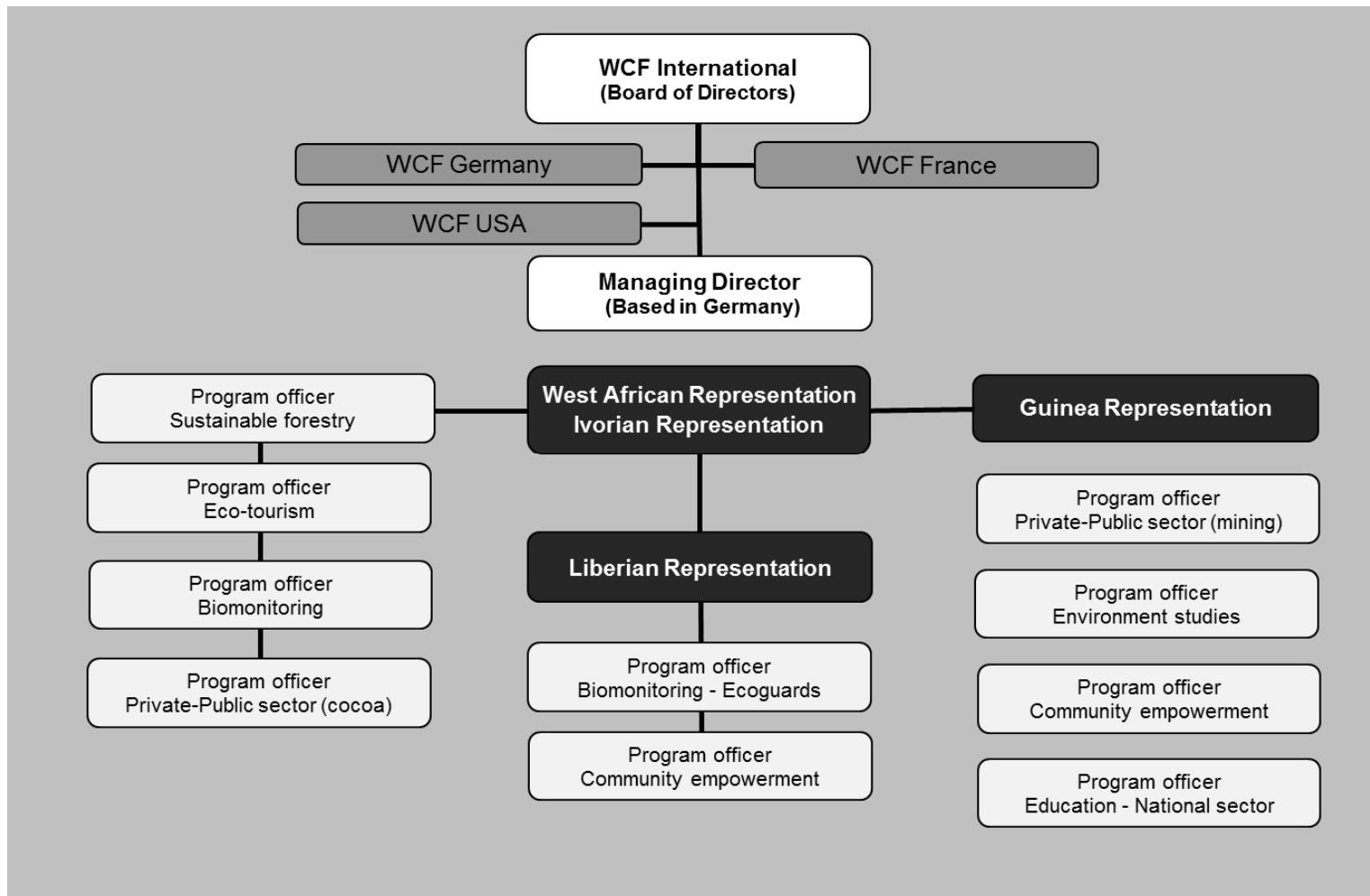
**Professor Christophe Boesch with his Excellency, the Guinean Prime Minister, Mamady Youla, discussing the creation of the Moyen-Bafing National Park, Guinea**

**At the 11<sup>th</sup> June 2016, an inter-ministerial meeting with the Ministry for the Environment and Forestry, Ministry of Mines, Ministry of Energy and Hydraulics, and OMVS was held.** This meeting followed a previous meeting between the three ministries and the Prime Minister who, sensitive to this project, and in addition to other development activities in the area, supports the continuation of the implementation of the MBNP in order to ensure the conservation of the chimpanzees in the area that represents the largest population in West Africa. To this end, he asked that a dialogue between key stakeholders was initiated. The objective of this meeting was to arrive at consensual solutions for the conservation of biodiversity in the MBNP through a sustainable development program, trying as much as possible to integrate the various needs of each stakeholder. The Minister of Environment and Forestry opened the meeting by stressing the importance of having the key stakeholders involved in the foundation of the MBNP around the same table to discuss the project. The Minister of Mines and Geology has approved this initiative and stressed his availability and offered his services for constructive exchanges. Following the opening, a presentation was made by OGUILPAR for the Ministry of the Environment on the process that led to the choice of the site for the future MBNP (abundance of chimpanzees, unique behaviours, etc.) as well as the threats of mining concessions and hydraulic projects, with suggested solutions.

Subsequently, discussions were held regarding the various threats; what emerged is as follows:

- The National Directorate of Mines will take stock of ongoing mining activities in the area, and if necessary revise the limits of their permits. Data on protected areas will, in future, be shared with the mining land registry, to avoid future repetition of the problem.
- The area along the Moyen-Bafing River holds most chimpanzees, while their density decreases in the north and in the south. Thus, the impacts of the dams proposed for Boureya (in the north) and Balassa (in the south) would be less than the impacts of the dam proposed for Koukoutamba.
- OMVS will slow the process of the opening of bids for the execution of works to allow the Environmental and Social Impact Assessment (ESIA) to be done upstream, as it should have been.
- The terms of reference for the ESIA should take into account the chimpanzees and other biodiversity living in the area upstream of the Koukoutamba dam project. They will be submitted to the Ministry of the Environment to be validated.
- The creation of an inter-ministerial commission by decree to formalize the various meetings on the project and allow technical consultations to consider all aspects of each project was proposed and accepted by all participants. The main actors, such OMVS and the WCF, will be involved.

### 3. Organisational chart



## 4. Acknowledgements

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Wild Chimpanzee Foundation reports, available on the WCF-webpage [www.wildchimps.org](http://www.wildchimps.org), and/or upon request.