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Annual report 2014

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

Prepared by the WCF team

January 2015

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Acronyms

APDRA - Association Pisciculture et Développement Rural en Afrique tropicale humide
CAEZA – Cooperative Agricole Espoir de Zagné
CASO – Cooperative Agricole Soleil de Taï
CCF – Cavally Classified Forest
CSO - Civil Society Organization
Club P.A.N. – People, Animals, Nature
CNP - Comoé National Park
COAT – Cooperative Agricole Allakabo de Tienkoula
COOPAHZ – Coopérative Agricole de Zagné
CPE - Cellule des Projets Environnementaux
DUE - Delegation Union Europeen
ECODA – Entreprise Cooperative de Daobly
EU – European Union
FDA - Forestry Development Authority
FLAG - Field Legality Advisory Group
FLEGT - Forest Law Enforcement, Governance and Trade
FDBA – Foutah Djallon-Bafing Area
FMC F - Forestry Management Contract “F”
GAC – Guinea Alumina Corporation
GDCF - Goin-Débe Classified Forest
GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit
GNF – Grebo National Forest
IUCN – Union Internationale pour la Conservation de la Nature
KFW - Kreditbank für Wiederaufbau
MAP - Multi-Agri-Systems Promoters
MINEF - Ministère des Eaux et Forêt
NGO – Non Gouvernemental Organisation
OGUIPAR - Office Guinéen des Parcs et Réserves
OIPR - Office Ivoirien des Parcs et Réserves
PGNP – Proposed Grebo National Park
RSPO - Roundtable on Sustainable Palm Oil
SODEFOR - Société pour le développement des forêts
STBC – logging company
SNP – Sapo National Park
TNP – Taï National Park
TGSFC – Taï-Grebo-Sapo Forest Complex (stretching between Liberia and Côte d’Ivoire)
WCF – Wild Chimpanzee Foundation

1 General conclusion and outlook for 2015

By the president of the Wild Chimpanzee Foundation, Christophe Boesch

The Wild Chimpanzee Foundation (WCF) has the mission of contributing to the protection of the largest remaining chimpanzee populations and the forests they inhabit. We are active in three West African countries, **Côte d'Ivoire, Guinea and Liberia**, with teams of scientific experts, European and African conservationists, as well as many local field assistants and animators.

Ebola crisis

The Ebola crisis in Liberia and Guinea has had a significant impact on the work of the WCF in both countries, whilst work in Côte d'Ivoire has been able to continue as planned.

In April 2014, WCF participated in a joint mission with the Robert Koch Institute (led by Dr. Fabian Leendertz) and the World Health Organisation in Guinea to search for the presence of Ebola in the forests and any impact on large mammal population near to the area where the outbreak first occurred. Results from this work are published (Mari-Saez et al. 2015).

In August 2014, WCF had to close both offices in Monrovia and Zwedru (Liberia) and halt all field activities until further notice due to the ever-worsening situation and restrictions on movement within the country. Contact is made regularly with the government partners in Liberia and currently we are preparing everything for the next year, in the hopes field work can start again in February 2015.

In Guinea, the situation is a little bit different; the two regions mainly concerned by the WCF's projects, Boké and the Foutah Djallon-Bafing Area (FDBA), are not located in regions directly touched by the Ebola outbreak. As such we have been able to maintain our activities and a presence. But difficulties are encountered since the fact of being in contact with people represents a danger. WCF's teams follow strict safety rules to prevent any risk to become infected.

Projects

Today, the WCF is focusing efforts on **biomonitoring, environmental education, law enforcement, eco-tourism and alternative livelihoods** in the **Tai-Grebo-Sapo Forest Complex (TGSFC)**. Since 2009, the WCF has supported the initiative to manage and coordinate the conservation of this landscape at a trans-boundary level between Côte d'Ivoire and Liberia. TGSFC, an area comprised of 5 protected areas and home to one of the largest populations of forest-dwelling West African chimpanzees, as well as the forest elephant, red colobus, zebra- and Jentink's duikers, to name but a few.

In 2014, we surveyed an area of 8'153 km² along the Bafing River in Guinea. The objective was to confirm that the **Foutah Djallon-Bafing Area** is the key area for large-scale conservation of chimpanzees in Guinea. This objective was attained with the estimation of a population of **4'717 chimpanzees**, which represents the largest known population in the country and makes it an area of prime importance in the conservation of the species. Through our long-term collaboration with Global Alumina Corporation, we intend to propose this area as the main target for mining biodiversity offset.

WCF-US

I am happy to inform you that the WCF Network has expanded this year, with the creation of WCF-US in California. The first submission to Disney conservation fund will show (if successful) whether we can manage funding from the US, as so far, we do not have active staff in the US.

Conclusion

The year 2014 was special due to the lasting Ebola crisis, but, thanks to the admirable motivation of our teams, WCF has been able to continue its work and presence in many domains. The decrease in new Ebola cases since the end of 2014 / beginning of 2015 allowed WCF-Guinea to take up all the activities as planned in December, whereas the WCF-Liberia team is returning to Monrovia and Zwedru in February 2015.

2 Executive summary

Environmental education

In 2014, the WCF continued **environmental education** throughout its priority areas, the TGSFC in Côte d'Ivoire and Liberia; and in the region of Boké in Guinea. Overall, we were able to educate more than 22'573 people about the conservation of chimpanzees and the importance of protecting their forest habitat in three West African countries, through theatre plays, film presentations, radio broadcasts, Club P.A.N., newsletters, school competitions, environmental days, a school exchange program and awareness and sensitisation campaigns.

Summary of the WCF's environmental education activities in 2014

| Activity | No of participants | Comments |
|---------------------------------------|--------------------|--|
| Côte d'Ivoire | | |
| Awareness and sensitisation campaigns | 5'482 | Including special program with cocoa farmers and Ebola sensitisation |
| Club P.A.N. | 1'459 | |
| Club P.A.N. parents day | 3'600 | |
| Theater tours | 5'350 | |
| Environmental day | 450 | |
| Radio broadcast | 82 | Cannot measure de number of auditors |
| School exchange project | 2'200 | |
| Guinea | | |
| Club P.A.N. | 1'150 | |
| Club P.A.N. parents day | 2'700 | |
| Liberia | | |
| Awareness campaigns | 100 | Including community mapping, eco-guards sensitization |
| Total | 22'573 | |

Alternative livelihood projects and sustainable use of natural resources

The **eco-tourism projects** of the WCF and its partner OIPR in Taï and Djouroutou (Taï National Park in Côte d'Ivoire) have successfully continued their habituation programs. In Djouroutou, a community of wild chimpanzees can be observed by tourists and guided tours in TNP were booked in 2014. In the village of Taï, WCF opened an eco-museum in June 2014 and two traditional huts were built to accommodate tourists. In the forest, the habituation of the mangabeys and red colobus monkeys at the eco-tourism site is ongoing.

In 2014, the WCF maintained alternative livelihood projects in Côte d'Ivoire and Liberia such as **micro-projects connected to schools and to local communities**: one new chicken farm in Tempo, Liberia, four grass-cutter, two snail, two goat, one chicken and four fish farms in Côte d'Ivoire. The aim is to provide local communities around key sites with an alternative source of protein compared to bush-meat and another source of income compared to illegal bush-meat hunting and trade.

WCF works with the project «**greening the cocoa industry**», a program for cocoa certification in western Côte d'Ivoire under the Rainforest Alliance label. The five cooperatives producing certified cocoa include around 2'300 plantations, with 1'500 of them very close to TNP. So far, cocoa nurseries have been developed and 653 trees were planted in November 2014. 704 local cocoa farmers were trained in environmental friendly farming and sustainable use of natural resources.

In 2014, the WCF started a **FLEGT** (Forest Law Enforcement Governance and Trade) **process** mandating an Independent Observation (IO) pilot project in Cavally Classified Forest (CCF) that was launched with an opening workshop in Abidjan in April 2014. The partnership agreement between WCF and Société de Développement des Forêts (SODEFOR) was signed, recognizing WCF as the IO and giving WCF access to all management documents for CCF and allowing WCF to conduct missions in CCF. A workshop for the Civil Society Organizations (CSOs) on IOs was held with support of the NGOs FLAG expert of Cameroon (Field Legality Advisory Group) and the DUE (European Union Delegation) project for capacity building of CSOs. Training on forest management and IO mission in CCF was conducted in 2014 with support of a FLAG expert and SODEFOR. A sensitization workshop for local communities in Zagné on issues related to the FLEGT process and the IO in CCF was organized in 2014. Finally, training of community people around CCF on law enforcement patrols and IO according to the forest management rules and forestry law has occurred in November 2014. 21 persons were trained and 11 have been selected to participate to the IO mission led by WCF during December 2014.

We also initiated a **project of a water source protection in Guinea**. A national workshop has been held in June, and the local communities have accepted to give 87 ha of forest gallery around a strategic water head. We are now going to conduct a rapid socio-economic survey among the community and organize a workshop that will allow officially validating the protection process and giving a legal status to this area.

Biomonitoring and law enforcement

In June 2014, the second steering committee meeting for the **trans-boundary collaboration for the Tai-Grebo-Sapo Forest Complex** (TGSFC) took place in Monrovia, Liberia. Presided by the Forestry Development Authority (FDA), the meeting this year allowed members to update on the progress made over the past year, to decide on urgent actions necessary to ensure the integrity of the complex, and to decide on lead organisations for each of the 4 technical committees already identified.

For the **creation of the Proposed Grebo National Park (PGNP) in Liberia** several steps are to be made, following the procedures of the government of Liberia. WCF has worked closely with the FDA to continue the process towards gazettment. They are as follow:

a) A corridor land-use study began in May 2014, though the work was cut short due to the Ebola outbreak. For the study, a WCF expert trained up members of local NGO Multi-Agri-Systems Promoters (MAP) to lead the data collection on land-use in the identified corridors in PGNP. Work will resume and also investigate the corridor identified between FMC F, one of the largest logging concessions in Liberia, and Sapo National Park (SNP) next year.

b) A community eco-guards patrol program (CEP) in PGNP was set up in February 2014. Two teams of 4 community eco-guards were created. Monthly 2-3 week missions were carried out until July (under supervision of WCF and FDA) by patrolling 300 km, identifying

key areas for anthropogenic pressure, mapping human paths used by poachers and farmers. Ten communities were sensitized about the creation of PGNP and wildlife protection.

c) A community mapping and consultations scheme was completed at the beginning of the year. WCF, FDA and MAP held consultations with over 50 communities around the PGNP to discuss its creation, receive their agreement and develop community participation and empowerment in the creation and future management of the park. A community mapping exercise was also carried out with each community to help them identify their towns and land in relation to GNF and to identify any activities (farming, hunting, mining, etc.) for which the communities enter GNF.

d) In PGNP, the 3th phase of biomonitoring was conducted in collaboration with FDA. Three teams were trained. Transects in PGNP are completed, the rest is on hold (two corridor areas: 1 in FMC F (logging concession next to Grebo) and 2 in the community land between FMC F and SNP. Results show that the PGNP holds an estimated 247 chimpanzees, though they remain threatened by hunting and habitat disturbance.

In 2014, WCF and OIPR led the **9th phase of the biomonitoring programs across Taï National Park (TNP) in Côte d'Ivoire**. Results show that the conservation status of TNP has stabilised, with the abundance of large mammal populations constant since the post-electoral crisis. Mapping analysis has also shown that there has been some decrease in anthropogenic pressure within TNP since 2011, demonstrating that law enforcement and sensitisation efforts may have an impact. The 10th phase will tell us if those trends are confirmed. The current population of weaned chimpanzees within TNP is estimated at 238 individuals.

Biomonitoring and law enforcement in priority sites within TNP (chimpanzee research site and the eco-tourism areas) revealed a considerable reduction in illegal human activities, with encounter rates dropping from 1.94 signs/km in 2012 to 0.31 signs/km in 2014 (an 84% reduction). Whilst encounter rates of duikers and monkeys have increased by 55% and 43% respectively. These results show that an increased in a positive human presence can have a strong positive impact on wildlife in a short period of time. The next phase of data collection commenced in October 2014 and will continue into 2015.

Biomonitoring in Comoé National Park (CNP) was conducted via an aerial survey over the park. The encounter rates of bovids ranged from 33.08 signs/km in 2010 to 48.44 signs/km in 2014, with an increase of bovids due to the presence of OIPR from 2010 till 2014, after an absence of OIPR from 2002 till 2010.

In 2014, **law enforcement with mixed eco-guards patrols** (community members, SODEFOR, STBC, WCF) have been conducted in CCF. About 700 ha of cocoa plantation have been destroyed, covering almost 50% of the CCF.

WCF continued its collaboration with the private mining operator **Guinea Alumina Corporation (GAC)**, after almost one year of non-activity because of a non-favourable global economic climate and a change of ownership of the project. In the frame of a mitigation-offset strategy recommended by the International Finance Corporation (IFC), we conducted the **5th phase of the biomonitoring within the GAC concession** near Sangaredi, north-west of Guinea. We found that the chimpanzee population is stable for now, but the bauxite exploitation works have not begun yet. Approximately 174 chimpanzees are living within the concession, while the mean population between 2009 and 2012 was estimated at 176 individuals. In the next months, WCF will develop a **new biodiversity management plan to GAC**, based on the results of these studies. We are now negotiating with GAC to

continue the collaboration and in particular to begin an ambitious integrated landscape management project in the Foutah Djallon-Bafing Area (FDBA).

For the **offset-strategy in the FDBA**, we did the inventory of an 8'000 km² large area thought to be of a very high potential for the regional conservation of chimpanzees, around the Bafing River (from September 2013 to March 2014). We estimated the total number of chimpanzees to be around 4'700 individuals, which makes this area unique in West Africa, and the best site for the offset of residual negative impact of the mining company GAC. A PhD student from the University of Leipzig collected **social data** (more than 1'200 questionnaires) during one full year within the area. At last, a **Temporary Research Site of the Max Planck Institute Pan African programme** "the cultured chimpanzee" has been settled in the north of the region and has already recorded chimpanzee behaviours never seen before.

Ebola crisis in Liberia and Guinea

In April 2014, WCF participated in a joint mission with the Robert Koch Institute (Dr. Fabian Leendertz) to Guinea and other partners to search for the Ebola impact on wildlife.

Sadly, the Ebola crisis stopped most of the WCF activities in Liberia and Guinea from August 2014 till the end of the year. The ex-pat teams took residence in Abidjan from where some activities were organized with the help of local assistants. The WCF-Guinea office was re-opened in December 2014, the ones in Liberia will open in February 2015.

Sociological and bush-meat studies

2014 represented a great year for WCF in relation to the illegal bush-meat trade, with both of the **trans-boundary markets at Daobly and Tarsla between Liberia and Côte d'Ivoire** being closed. Analysis of the five years of data collection showed that during 250 visits to the bush-meat markets a total of 11'600 animals were sold across the border. WCF will refocus its bush-meat studies in 2015 towards the source of this bush-meat, by performing a sociological survey in villages surrounding PGNP, Liberia.

Since the new ownership, GAC has been defining a new mining project and is doing a larger Social and Environmental Impact Assessment (SEIA) in the southern half of its concession. WCF has been then asked to complete its work with a **bush-meat and wood-collection survey**. The recent analyses showed that approximately 250 hunters are in the concession. The mean revenue is high (almost three times the minimum legal salary). Wood is used in a non-sustainable way threatening the remaining habitat.

3 Environmental education

3.1 Theater tours in Côte d'Ivoire

In 2014, we developed several environmental education activities, such as school theatre in collaboration with Cellule des Projets Environnementaux (CPE) of the Ministry of Education in Côte d'Ivoire. Two theatre tours were organized around TNP in June and August. A further tour in December incorporated a new group of school children from Sakré and a new piece, four performances took place. Each tour involved a presentation of the theatre piece, followed by screenings of WCF and BBC chimpanzee films, distribution of newsletters and discussion rounds with local communities. In total, **5'350 spectators** have seen the tour.

Theater in Côte d'Ivoire

| Village | No of spectators |
|----------------|-------------------------|
| Taï | 250 |
| Ponan | 450 |
| Siobla Oula | 350 |
| Tielo Oula | 500 |
| Nigre | 700 |
| Para | 450 |
| Youkou | 450 |
| Djouroutou | 500 |
| Ziriglo | 300 |
| Sakre | 500 |
| Siobla Oula | 450 |
| Diero Oula | 450 |
| Total | 5'350 |

3.2 Radio broadcast in Côte d'Ivoire

A radio show called “chimpanzees are our cousins” was recorded in Taï (attended by **28 students**) and Djouroutou (attended by **24 students**) in June and July. One further show occurred in November 2014 in Soubré (attended by **30 students**) called “protect TNP to protect your lives”. The children, via radio, talked about endangered species such as elephants and chimpanzees, discussed deforestation and alternative livelihoods to protect TNP. Radio shows are live in villages close to TNP, Soubré, Buyo and Zagné, and they are very popular.

3.3 School competition in Côte d'Ivoire

To coincide with the creation of six new school micro-projects in 2013 and 2014, WCF launched a school micro-project competition in Côte d'Ivoire to evaluate the success of each of the projects. A panel of three judges represented by officials from OIPR and the Direction Régionale de l'Education Nationale and the Enseignement Technique completed the

evaluation in November 2014. The top three schools (**1st chicken farm Ziriglo, 2nd goat farm Adamakro and 3rd grass-cutter farm Petit-Tiémé**) will receive cash prize to be used to further support their farms, whilst all six participating schools will receive a range of books on animal husbandry to continue the improvement of their projects.

3.4 Environmental days in Côte d'Ivoire

To increase awareness about the importance of the environment, an environmental day was organised in Taï village, Côte d'Ivoire. The day began with a radio broadcast discussing environmental issues. Later people were invited to attend a presentation by OIPR discussing the issues facing TNP, followed by singing from Taï choir and screenings of environmental documentaries. The day attracted an audience of over **450 individuals**.

Traditional dancing performed at the environmental day in the village of Taï

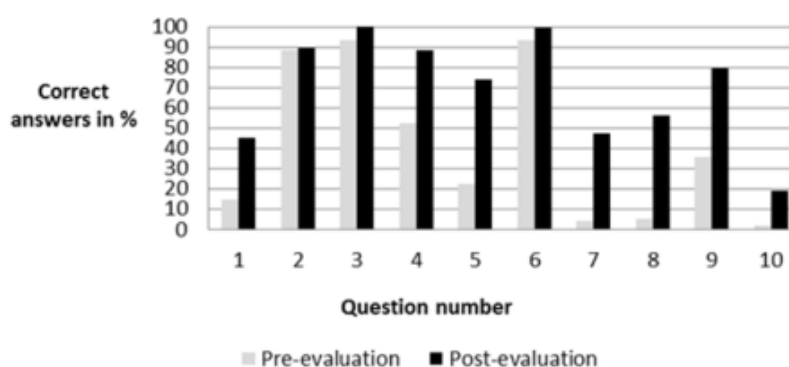


3.5 Club P.A.N. in Côte d'Ivoire and Guinea

3.5.1 *Club P.A.N. in Côte d'Ivoire*

Club P.A.N. was fully active during the school year 2013/14 and 2014/15 around TNP with all Club P.A.N. teachers and principals having received intensive training. In total, 15 schools with **729 children** were reached in 2013/14 and **730 children** in 2014/15. All children underwent two evaluations and 11 sessions. They all joined in preparing a parents' day at the end of their school year, with an estimated audience of **3'600 parents**. Our coordinator **Mr. Guilahoux** was honoured with the "**Charles Southwick Conservation Education Commitment Award**" from the International Primatological Society and **Club P.A.N.** received the "**Educating Africa Pan-African Award for Entrepreneurship in Education**".

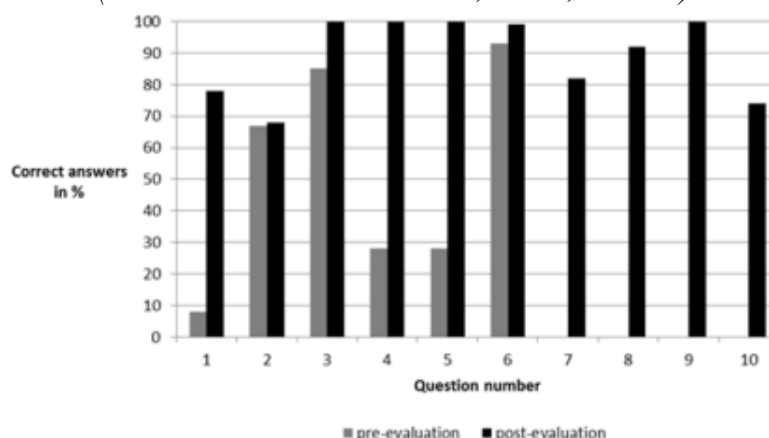
Club P.A.N. children in Côte d'Ivoire increased their knowledge significantly by 29% on average (Wilcoxon Exact Test: $T+=55$, $N=10$, $P<0.01$)



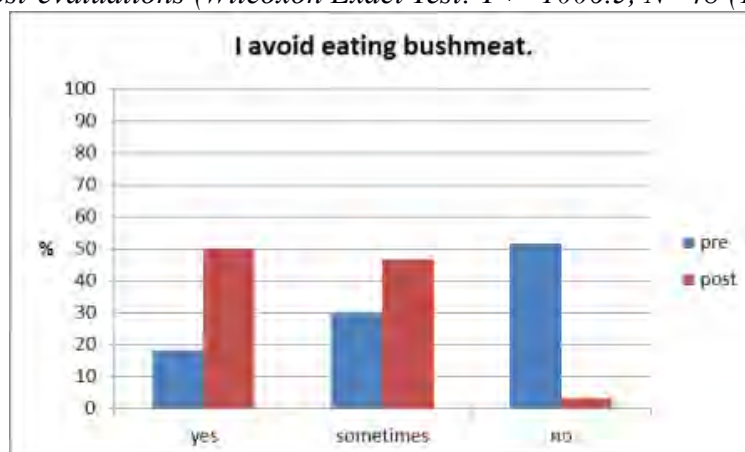
3.5.2 Club P.A.N. in Guinea

During the school year 2013/2014, Club P.A.N. was active in 4 schools in the region of Boké reaching **400 children** and **2'700 spectators** during the parents' days. During 2014/2015, we created Club P.A.N. in 3 new schools in the FDBA, plus we continued our work in the 4 schools in Boké, summing up to 7 schools with **750 children** in total. The two coordinators Mr. Kaba and Mr. Diallo were guiding all principals and teachers. They conducted the teacher training and evaluated the project by organizing a pre- and post-evaluation. Evaluation results show a knowledge gain and a positive change in attitudes towards nature conservation.

Club P.A.N. children in Guinea increased their knowledge significantly by 58% on average (Wilcoxon Exact Test: $T+=55$, $N=10$, $P<0.01$)



Club P.A.N. children showed a positive attitude towards nature in pre-evaluations and this increased in post-evaluations (Wilcoxon Exact Test: $T+=1006.5$, $N=48$ (12 ties), $P<0.01$)



Disneynature book "Chimpanzee" distribution for the Club P.A.N. children in Guinea



3.6 School exchange project between Côte d'Ivoire and Germany

The school exchange program between German and Ivorian children has been ongoing since 2005. The children write letters to each other in French, they create posters and paintings. In 2014, about **3'000 letters**, several posters and small gifts were exchanged between Germany and Côte d'Ivoire, on both sides there are more than **2'200 children** involved each year. The Kepler Gymnasium Leipzig raised **1000 Euros** for the Club P.A.N. project. The Humboldt Gymnasium Werdau raised **700 Euros** for their partner school Adamakro that enabled the renovation of a building with two new class rooms. Thanks to donations from 2 German schools, Mittelschule Kirchberg and Kepler Gymnasium Leipzig, school fees plus uniforms and stationary were provided to six girls from the villages of Amaragui and Petit Tiémé.

Renovation of Adamakro school and six girls received school fee and material through the partner schools in Germany



3.7 Proximity awareness in Côte d'Ivoire and Liberia

In 2014, the WCF continued a proximity awareness program in villages in the TGSFC (Côte d'Ivoire and Liberia) to improve relationships with the local human communities and to inform them on the trans-boundary corridor project, the importance to protect the forest and its wildlife. Local animators visited villages on a monthly basis to meet the authorities such as the village chief, the presidents of the women and the young people. During the visits, the animators showed posters created by WCF, films about chimpanzees and WCF projects. In 2014, an additional awareness program was conducted for cacao producers for them to receive the cacao certification of Rainforest Alliance. In total, the sensitisation meetings occurred in **32 villages** and managed to attract **1'872 participants**. These meetings were held throughout the year, and not only provided WCF with the opportunity to disseminate information, but also to maintain a dialogue between WCF and the communities.

Proximity awareness program in villages in the TGSFC



3.8 Ebola sensitisation in Côte d'Ivoire

Given the Ebola outbreak in West Africa (Guinea, Sierra Leone, Liberia), WCF-Côte d'Ivoire acted to sensitise the communities living near the Liberian-Ivorian border on how to protect themselves against Ebola contamination. In October 2014, a workshop was held in Taï to plan the sensitisation missions in conjunction with our partners (LANADA, Robert Koch Institute, Centre Suisse de Recherche Scientifique, Taï Chimpanzee Project and Taï Monkey Project, alongside leaders of local communities). Sensitisation teams were equipped with health kits, consisting of buckets, soap, antibacterial gel, posters and stickers warning of the threat of Ebola. In October and November 2014, the teams visited many villages bordering Liberia. At each village visited, a presentation, documentaries and question-answer sessions were performed. A total of **3'610 participants** were counted. All of these activities were translated into four local languages (Oubi, Baoulé, Malinké, Moréa) to ensure that all of the participants understood all aspects of the sessions.

Number of people that attended the Ebola sensitisation meetings

| Villages | Date | No. of participants | No. of kits distributed |
|--------------|--------------|---------------------|---|
| Sioblo-oula | 29/oct/2014 | 700 | 2 kits: village and school |
| Ziriglo | 30/oct/2014 | 200 | 3 kits: village, school, health centre |
| Sakré | 31/oct/2014 | 300 | 4 kits: village, school, 2 health centres |
| Tiolé-oula | 1er/nov/2014 | 500 | 4 kits: village, school, 2 health centres |
| Port-Gentil | 02/nov/2014 | 250 | 1 kit: village |
| Diéro-oula | 03/nov/2014 | 500 | 2 kits: village, school |
| Paule-oula | 04/nov/2014 | 300 | 2 kits: village, school |
| Gouleako 2 | 05/nov/2014 | 400 | 2 kits: village, school |
| Kouadiokro | 06/nov/2014 | 60 | 1 kit: village |
| Taï | 07/nov/2014 | 400 | 26 kits |
| TOTAL | | 3'610 | 47 |

4 Alternative livelihood projects and sustainable use of natural resources

4.1 Eco-tourism in Côte d'Ivoire

4.1.1 *Eco-tourism and eco-museum in Taï, Côte d'Ivoire*

The eco-museum project, which is part of the eco-tourism vision for Taï was inaugurated on June 27th 2014. The event was covered by the national press and appeared on Ivorian national television. The inauguration program was composed by a day of environmental awareness alongside associated activities such as theatre, film screening and a guided visit to the museum. The poster exhibition, created in 2012 for the celebration of 33-years of research and conservation of chimpanzees in TNP, is now a permanent exhibition there. In addition, leaflets on wildlife in the region, cultural events and hints and tips on food and accommodation in the town of Taï are available. The museum, with the reception and information centre for tourists, aims to show the natural and cultural heritage of the region.

New sign for the eco-museum in Taï and Virginie Vergnes, WCF-program officer, being interviewed by national media

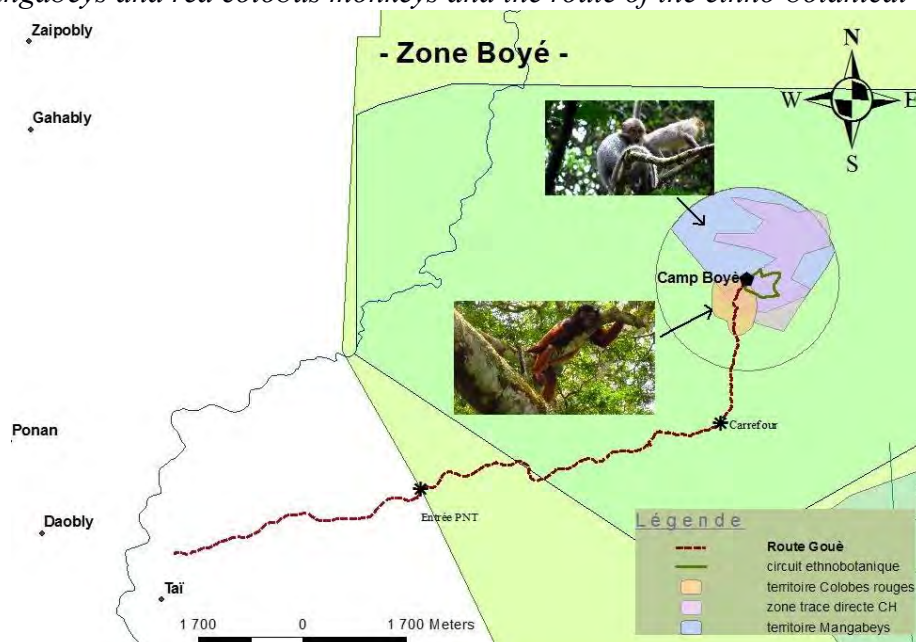


The eco-tourism team assigned to work in the forest is composed of six eco-guides and two camp managers. The eco-guides keep track of animals and accompany tourists. Camp managers oversee the camp "Boye", taking care of eco-guides and tourists. This year, following the recruitment of a new camp manager in December, the team now has five women and three men. From January to March 2014, one task was to explore an area called "Boye" in TNP, looking for a group of mangabeys, large enough and close enough to the camp, which could be habituated for viewing by tourists.

WCF eco-guides forest team

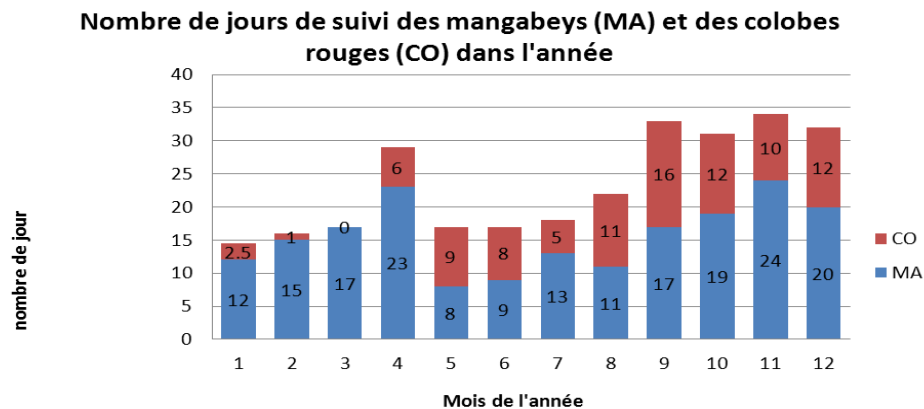


Map displaying the location of the eco-tourism camp in TNP, highlighting the ranges of the mangabeys and red colobus monkeys and the route of the ethno-botanical trail



In April, the primates accepted the daily presence of eco-guides, leading to a monitoring of over 200 hours for that month. From May to August, habituation became difficult because of the rainy season, where animals are often too silent to be found, therefore the mangabey monitoring slowed. Since September, the monitoring time has increased steadily. When excluding the days when they were not located the average time tracking mangabeys per day per month has increased steadily since the beginning of the year. Although the number of follow-hours decreased during the months of May to August, mangabeys were followed over most of the day (on average 6h45min).

Total number of days per month that red colobus and magabeys were followed



We reduced the effort for red colobus monkeys in 2014, as their habituation process is ongoing since 2013 and is well advanced. Their territory is located near the camp and is much smaller than that of the mangabeys. Colobus monkeys are easier to find. Since August they were followed for at least 10 days per month with an average follow-day of 7h30min.

To achieve progress in the community eco-tourism project in Taï, reliable structures for accommodation are crucial. For the stay in the forest, a "backpacker camp" was completed in TNP. The camp for tourists, adjoining that of the eco-guides, has now a large "Safari" tent set on a wooden platform, as well as toilets with water, and it offers the comfort of a hotel room with traditional furniture designed by local artisans.

Furnished eco-tourism Safari tent of the backpacker camp in TNP



Two traditional huts were built, one in the village of Oubi Gouléako 1 and one in Daobly. They were built in round shape made of “banco” (mud mixed with water reinforcing a crisscross wooden structure), topped by a conical papo roof (straw raffia palms) placed in several layers, alike the dominant village architecture of forest areas. Each hut was conceived to house anyone who expresses the wish to spend one or more nights in an African village. The furniture consists of two "tara" (traditional bed), chairs, a table, a wardrobe and shelves made from raffia wood, and they are expertly manufactured by the Oubi and Dao craftsmen. In the context of sustainable development, capacity building and skills have been associated with the gender dimension, i.e. women who have been selected to manage the accommodation structures both in the forest and in the two Oubi and Dao villages.

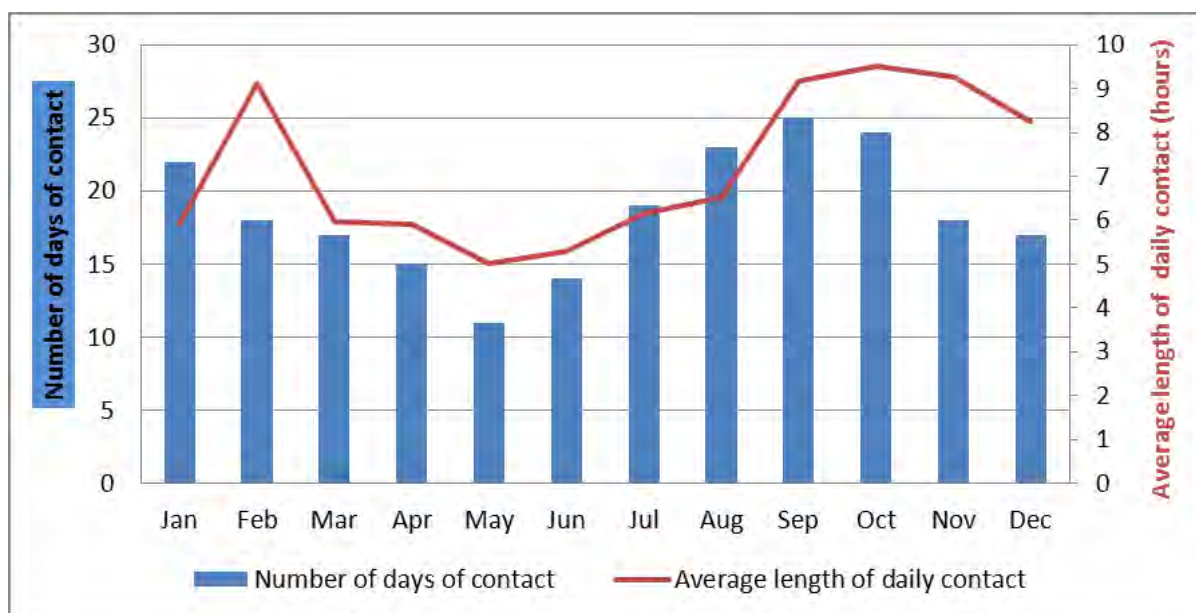
One of the traditional huts, ready to accommodate visitors



4.1.2 Eco-tourism site of OIPR in Djouroutou, Côte d'Ivoire

During 2014, WCF, in collaboration with OIPR, has been fully involved in the continuing chimpanzee habituation process at the Djouroutou eco-tourism site in TNP, 60 km south of Taï. During the second half of 2014, the team managed 689.5 hours of contact with the chimpanzees. It was observed that all identified females within the group currently have infants, which is great news for the health of the group. 12 individuals have been identified, and there has been an improvement in the number of contact hours with the chimpanzees.

Contact time with chimpanzees in Djouroutou during 2014



4.2 Micro-projects in Côte d'Ivoire and Liberia

Ten micro-projects connected to communities and schools near TNP in Côte d'Ivoire and near PGNP in Liberia were established in order to help promote alternatives to bush-meat consumption in the region. In total, WCF supports four grass-cutter, two snail, two goat and one chicken farm in Côte d'Ivoire. One new chicken farm was created in Tempo, Liberia.

With the income from the selling of the grass-cutters or snails, the benefit of the micro-projects can support renovation costs of school buildings and, as in the school of Petit-Tiémé, support children for lunch in their canteen. The farms are regularly visited by local authorities and have evolved to be an important part of the school life. Children learn how to take care of animals, how to breed and sell them. Most of the farms work well, except for some incidents: in Wonséaly, Taï and Paulé-Oula (all grass-cutters), the farms had to be closed due to the Ebola crisis. For unknown reasons, people imagined to contract Ebola from the grass-cutters and did not want to take care anymore of the animals.

The first school micro-project in Liberia was started with Tempo Public Primary School. Tempo is a town right on the border with Côte d'Ivoire and next to PGNP. In April 2014, WCF teamed up with MAP to create a local management committee to build a chicken farm. The parent-teacher association, school children and community members all worked together to build the farm. 18 chickens were donated and a management scheme has been devised.

WCF micro-projects in Côte d'Ivoire and Liberia

| Micro-project | No of individuals | Sold individuals | Income (FCFA) | Losses | Comments |
|--------------------------|-------------------|------------------|---------------|--------|--------------------------|
| Grass-cutter farm | | | | | |
| Petit-Tiémé | 25 | 0 | 0 | 0 | Farm is working well |
| Wonséaly | - | - | - | - | Farm closed due to Ebola |
| Taï | - | - | - | - | Farm closed due to Ebola |
| Paulé-Oula | - | - | - | - | Farm closed due to Ebola |
| Snail farm | | | | | |
| Sakré | 330 | 0 | 0 | 0 | Farm is working well |
| Djouroutou | 98 | 0 | 0 | 0 | Farm is working well |
| Goat farm | | | | | |
| Para | 10 | 0 | 0 | 0 | Farm is working well |
| Adamakro | 11 | 0 | 0 | 0 | Farm is working well |
| Chicken farm | | | | | |
| Tempo | 17 | 0 | 0 | 0 | Farm is working well |
| Ziriglo | 34 | 15 | 71'000 | 0 | Farm is working well |

In June 2014, "APDRA" (Association Pisciculture et Développement Rural en Afrique tropicale humide) conducted a survey of the WCF fish-farms in Côte d'Ivoire and potential farms in Liberia, and a report was provided to the WCF. A total of six fish farms in Côte d'Ivoire: Daobly, Ponan, Zagné, Sakré, Gouleako and Vodelobly had been investigated and 4 potential farms in Liberia visited: Tempo town, Yeoh town, Clotetee and Garleo town. Based on this report, WCF is currently reviewing the next steps to take to ensure the best impact for their alternative livelihood programs.

4.3 Cacao certification in Côte d'Ivoire

In 2012, WCF began working with the project « **greening the cacao industry** », a program for cacao certification in western Côte d'Ivoire under the Rainforest Alliance label. The cacao plantations are close to TNP. The project is a huge collaborative enterprise with Rainforest Alliance, GIZ, Barry Callebaut, OIPR and five cacao cooperatives ECODA, CASO, COOPAHZ, COAT and CAEZA. WCF is involved because the certified cacao concept provides a sustainable use of natural resources with environmental benefits, as well as social and economic benefits to the local cacao farmers. Farmers that accept the certification have to follow certain rules such as reforestation in areas of their plantations, no bush-meat hunting, and limits on the use of pesticides. The five cooperatives producing certified cocoa include around 2'300 plantations, with 1'500 of them very close to TNP. Following the cartography of Rainforest Alliance, we developed a pilot project of reforestation of cocoa farms along roads, rivers, camps and TNP. In November 2014, **653 trees** were planted along 6'610 m:

- 325 trees along 3'250 m of roads
- 93 trees along 1'120 m of camps
- 141 trees along 1'360 m of rivers
- 43 trees along 410 m of TNP.

An evaluation of this activity will be organised early 2015 to orientate the development of the program. WCF has also embarked on collaboration with CIPEXI for a new certified cocoa scheme in 2014, based around cocoa farms in Djouroutou. The difference with the CIPEXI project is that it amalgamates land-sparing and land-sharing methods that are normally viewed as contrary strategies. With every farm that participates in the project, 25% of the farm will be spared for natural regrowth, 25% will be farmed traditionally and 50% will use modern agroforestry techniques. The project aim is to look at the effect different farming systems have on the level of biodiversity found on farms. Currently, baseline biodiversity studies are being performed on farms engaged in the project which will be compared to repeated studies next year. Results of the baseline study will be available in early 2015.

4.4 Sustainable forest management in Côte d'Ivoire

As part of FLEGT (Forest Law for Enforcement, Governance and Trade) and the EU-FLEGT FAO program, WCF has a project funded by EU, FAO and UK Department for International Development. The project entitled "Development of an independent observation strategy of forest management in a classified forest with civil society and communities" is a pilot study in CCF, Côte d'Ivoire. It is carried out with the support of FLAG (Field Legality Advisory Group), a Cameroonian NGO, whose members have much expertise in Central Africa.

Project launch workshop in Abidjan and workshop for the Civil Society Organizations



Independent Observation (IO) in the FLEGT process is carried out by the civil society, and is an approach to gather credible and verifiable information from field studies on forest law enforcement and problems specifically related to governance. This information will be used to inform governments (SODEFOR / MINEF) on the observed violations and failures of the monitoring system and control of forest activities, and thus to encourage them to take actions that directly address the identified problems (exceeding operating limits in the concession, felling unauthorized species, operating without lawful authority, exploiting unmarked logs). This project tracks the forest management with greater transparency, and directly implicates local communities in forest management. This project also includes a monitoring component, which provides support surveillance against illegal infiltration of local communities, disappearance of forest resources and biodiversity in the forests of Côte d'Ivoire.

Results of the project in 2014:

- Signing of a partnership agreement between WCF and SODEFOR, mandating WCF to perform Independent Monitoring missions with members of the communities in forest managed by the logging company (STBC) and its government controller SODEFOR.
- Compilation and analysis of SODEFOR procedures and legal requirements applicable to the management of classified forests, training of the project team by SODEFOR on the basics of planning and technical procedures of SODEFOR
- Training workshop on independent monitoring by Civil Society Organizations (CSOs) during 2 days with 30 participants and practical training for four people from CSOs in CCF
- Awareness session on the FLEGT process and the IO to the sub-prefecture of Zagné (2 days, 60 people invited)
- Training of communities surrounding CCF on monitoring and IO of forest management (21 trainees, 11 deductions)
- 4 IO missions and surveillance in CCF to collect information on past and on-going logging, reforestation, authorization documents to operate, the involvement of communities by the development plan etc.

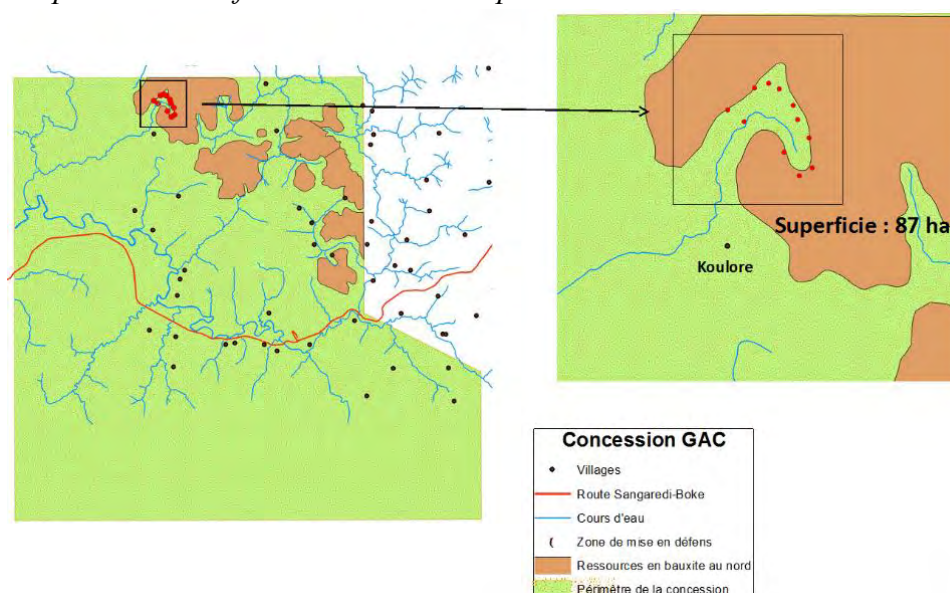
4.5 Water source protection in Guinea Alumina Corporation concession, Guinea

The water resource has been identified by the WCF as the first priority for a mitigation strategy of the GAC operations' negative impacts (WCF Chimpanzee Management Plan 2010). After field investigations, we selected a water source which has an impact on three different communities in the area of the village called Koulore.

The very first step has been a visit to the communities concerned. A "mise en défense" (means: set under protection) project is a volunteer process, asked by the community for the community. WCF and GAC can only assist the villagers. The village representatives suggested giving up some land for the project, as they understood that they would then directly benefit from the protection of a vital resource. The technical model of the "mise en défense" process was outdated and we needed to decide and validate an updated method with the authorities. In June 2014, we organized a national workshop with the General Direction of the Office Guinéen des Parcs et Réserves (OGUIPAR), agreed on a general technical model and obtained the authorization to continue the process at the prefectural level. Meanwhile, representatives from GAC, WCF and the local communities validated together, the final limits of the area to be protected by the "mise en défense". In all, 87 ha will be protected. We plan to

implement surveys to learn more about the villagers' cultural customs in relation to the environment. Once the agreement of protection is signed, this will help target the people and the activities in order to give an economic function to this newly protected zone. The construction of concrete boundary markers and information panels has been executed and will be used to delimitate the protected zone and inform people about the restricted use of this area. We also just achieved the opening of firebreak corridors all around the protected zone to prevent it from the recurrent bushfires during the dry season.

Representation of water source to be protected within the GAC concession



Once the whole process achieved, we expect the protected area to be favourable to both local communities and wildlife, especially chimpanzees (regularly heard or observed in the area) and riparian vegetation. Also, thanks to the water-head enhanced functionality, it will become an improved area for sustained food security. The agricultural conversion of the downstream wetlands, would provide more food to the communities, the possibility of a supplementary income, and encourage them to protect the water they are depending on in their own interest.

5 Biomonitoring and law enforcement

5.1 Steering committee meeting for Tai-Grebo-Sapo Forest Complex, Liberia

In June 2014, the **second steering committee meeting for the trans-boundary collaboration for TGSFC** took place in Monrovia, Liberia. During the meeting, FDA, OIPR, SODEFOR, FFI and WCF gave updates on the progress made over the past year in relation to the aims and objectives of the trans-boundary initiative. A number of urgent activities had been identified during the 1st steering committee – this matrix of urgent action was updated during the 2nd meeting in Monrovia in light of the changing environment and conditions. It was necessary to add new urgent actions, mainly on law enforcement, development of management- and land-use plans, and assign responsibility of these actions to the most relevant organizations (WCF report 2014 on 2nd steering committee meeting). Additionally, the steering committee set about deciding on lead organizations for each of the committees,

possible consultants to help each of the committees, and also possible further funding opportunities for each of the committees to fulfil their objectives. It is hoped that the steering committee remains the guiding voice for trans-boundary activities and partners should liaise with the steering committee to ensure that activities are in line with the decided vision, goal, aim and objectives to complement other interventions, and to make sure that there are no parallel processes and duplication of efforts. The steering committee has agreed to hold the next meeting in Freetown, Sierra Leone by 2015, to be presided by the Mano River Union.

Participants from the second steering committee meeting



5.2 Corridor land-use study for Proposed Grebo National Park, Liberia

A **corridor land-use study** began in May 2014 and is on-going. For the study, a WCF expert trained up members of the local NGO MAP to lead the data collection on land-use in the identified corridors in PGNP and the corridor identified between FMC F and Sapo National Park (SNP). Data was collected in the Glaro District of River Gee County on the Grebo National Forest (GNF) boundary line, and the use of community land. Due to the Ebola outbreak, field work has currently been put on hold and the study will continue in 2015. In the photo the field team can be seen marking the GNF boundary line.

The data collection team at work during the corridor land-use study



5.3 Community eco-guard patrol program for Proposed Grebo National Park, Liberia

A **community eco-guard patrol program** was created for PGNP. In February/March 2014, two training and recruitment workshops were held to choose local community members from River Gee and Grand Gedeh to form two eco-guard teams. Each team is made up of 4 local community members, and are supervised by one FDA ranger and one WCF officer. A 4x4km grid system was created to organize patrols systematically. During patrols, teams gather data on 2 km recce on all anthropogenic activities and key wildlife. Human paths are mapped and farms plotted. A first phase of patrols has shown that right now chewing stick harvesting is the greatest threat to the integrity of the PGNP, as well as hunting. To improve the effectiveness of the program, a third team should be trained and FDA rangers should lead law enforcement missions as soon as possible. After each patrol, teams spend 2-3 days in local communities to raise awareness on the creation of the park and the protection of wildlife.

Eco-guards with WCF president Professor Boesch and WCF-Liberia director Dervla Dowd



5.4 Community mapping program for Proposed Grebo National Park, Liberia

In support of FDA's decision to create Grebo National Park in part of the GNF in south-eastern Liberia, a **community consultation and mapping program** was led in the counties of Grand Gedeh and River Gee. The first mission was led in December 2013 in Grand Gedeh and the second one in January 2014 in River Gee. FDA, WCF and MAP led missions to consult with the communities of both counties located near PGNP to discuss its creation, receive their agreement, and to develop community participation and empowerment in the creation and future management of the park. We met with the population of 27 towns/villages in Grand Gedeh and of 28 towns/villages in River Gee. During all meetings, discussions were held over the importance of protecting the forests and its wildlife, the importance of the forest to the community, the protected species of Liberia and the need for GNF to become a national park. After the initial discussions, a simple community participatory mapping exercise was done with each community to help them identify their towns and land in relation to GNF and to identify any activities (farming, hunting, mining, etc.) for which the communities enter GNF. Overall, FDA, WCF, MAP and the local communities agreed on keeping the original GNF boundaries for the national park. The corridors in River Gee were also welcomed, as the communities understood the importance for wildlife to be connected to the other forest areas.

5.5 Biomonitoring in Proposed Grebo National Park, Liberia

A new phase of **biomonitoring in PGNP**, Liberia started in February 2014. The survey was intensified inside PGNP and also included the identified corridor that runs through FMC F and the corridor that links SNP to FMC F. Three teams were re-trained in data collection, composed of local community members, FDA rangers and WCF supervisors. In 2014, transects were completed in PGNP, but not in the rest of the region, as work had to stop due to the Ebola outbreak. They will be completed as soon as possible in 2015. Results showed that PGNP holds an estimated **247 chimpanzees**.

Biomonitoring design used in PGNP (blue) and forest logging concession (brown)

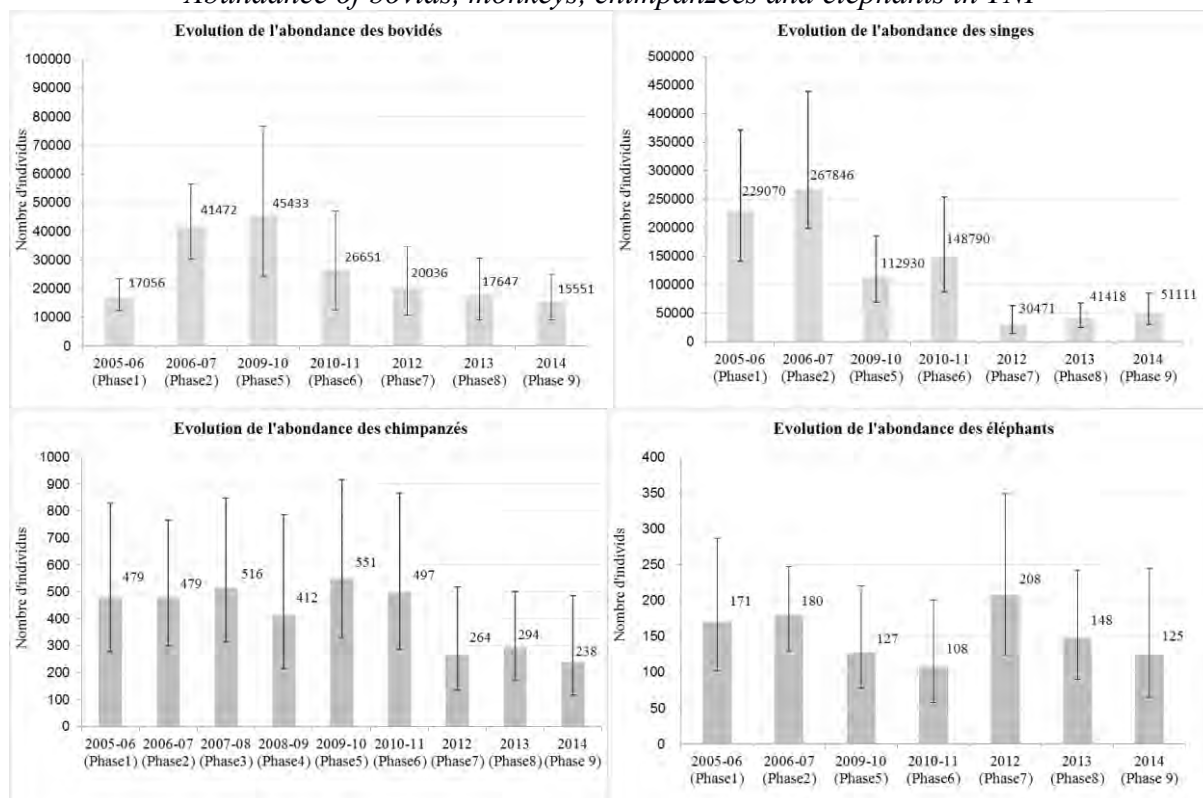


5.6 Biomonitoring in Taï National Park, Côte d'Ivoire

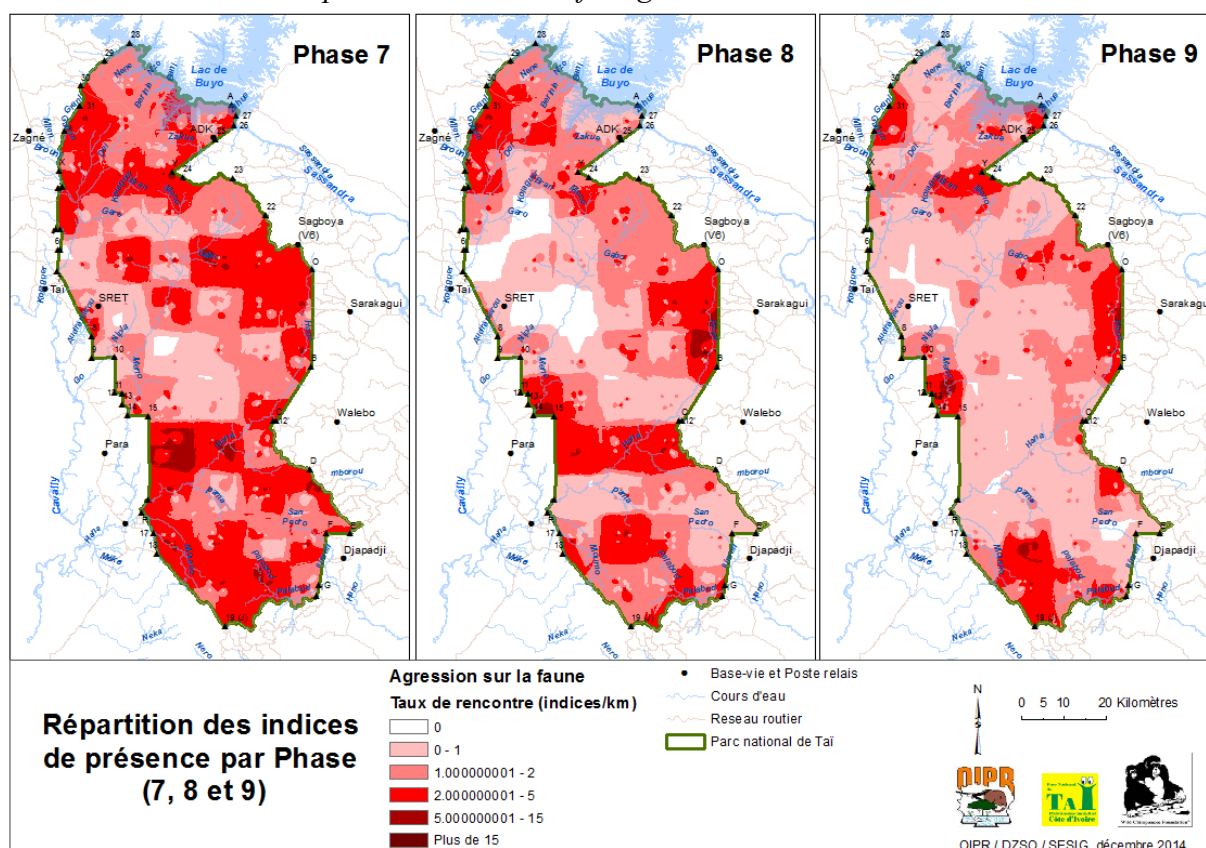
WCF collected the **biomonitoring data of phase 9** in TNP from September 2013 till April 2014. Phase 9 is the third phase after the restart of management activities following the post-election crisis of 2010-11. It is an important phase to assess the state of conservation in the park. As in phase 8, direct observations of duikers and monkeys remained low, with less than 60 direct- and group-observations on transects. Encounter rates of these animal groups are estimated at 0.5 direct observations/km for monkeys and 0.08 direct observations/km for duikers. Statistical analyses show that there is no significant difference between the estimated abundance for duikers and monkeys during the post-crisis phase.

The chimpanzee population is estimated at 238 weaned individuals with a density of 0.054 individuals / km². As for the elephants, the population is estimated at around 125 individuals with a density of 0,023 individuals / km². These results represent a stabilisation in large mammal populations within TNP, as there was no significant difference with the results since the post-election crisis of 2011. Spatial distribution maps also show large mammals gradually migrating back into areas of the forest that were previously void of populations, such as the eastern zones of the park.

Abundance of bovids, monkeys, chimpanzees and elephants in TNP



Spatial distribution of illegal human activities in TNP



The indices of illegal human activities within TNP are dominated by acts against wildlife (75% of results) and the most attacked sector is Soubré, with an encounter rate of 3.06 signs of illegal human activities per km. The most observed signs of illegal human activities found are poaching trails, shotgun cartridges and snares. Regarding flora-related assaults, these are evidenced by small-scale gold-mining sites that have persisted since phase 8. The mapping analysis shows a decrease in anthropogenic pressure in the TNP between phase 7 and 9.

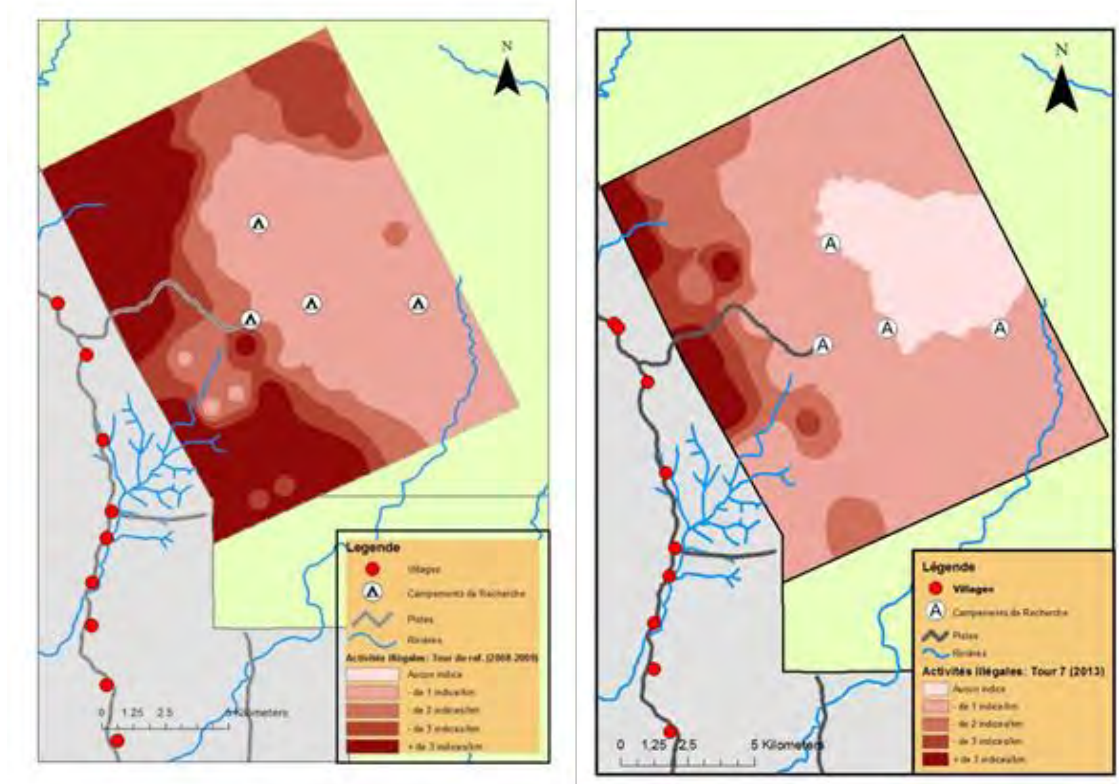
The conservation status of TNP has improved after strong anthropogenic pressure during the post-election crisis. The abundance of the different large mammal species is stable. Although direct observations of animals are low, their presence seems to increase throughout TNP based on indirect observations (droppings, footprints, vocalization, etc.).

5.7 Biomonitoring in priority sites of Taï National Park, Côte d'Ivoire

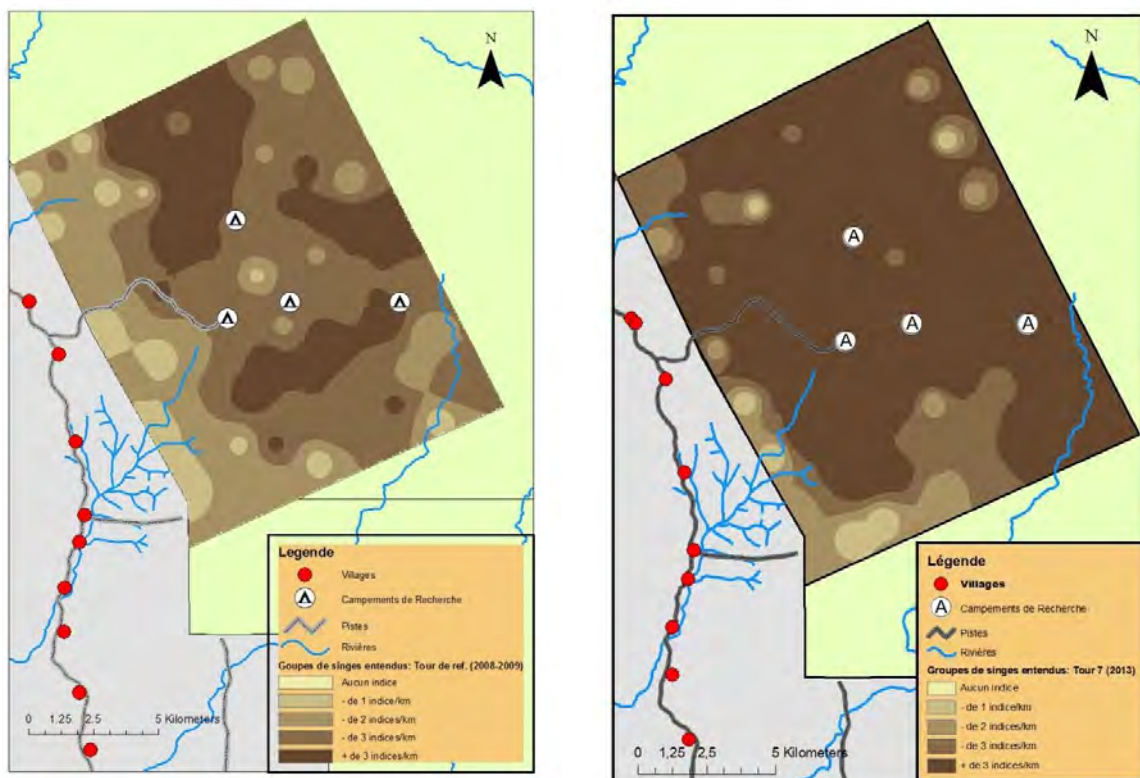
The anti-poaching project (initiated in 2008 in the **research area in Taï**, and in 2012 for the **eco-tourism area in Djouroutou**), has the main purpose of studying the positive and permanent human presence in order to increase the protection of animals.

For the **research area in Taï**, between 2009 and 2013, monitoring data were collected on 75 transects (baseline), and from 2013 on, data were collected on 191 transects, including the eco-tourism site in Taï and the southern part of the research area. The encounter rate of the illegal human activities is of 0.90 signs/km, with a pre-dominance at the tourism site, and the southern part of the research area. The encounter rate for duikers is of 28.87 signs/km, with a concentration around the research area. For chimpanzees, the encounter rate is of 1.77 signs/km, with a concentrated presence in the research and tourism areas. For monkeys, the encounter rate is of 3.72 signs/km, with a more concentrated population in the research area.

Distribution of illegal human activities in the research area of TNP

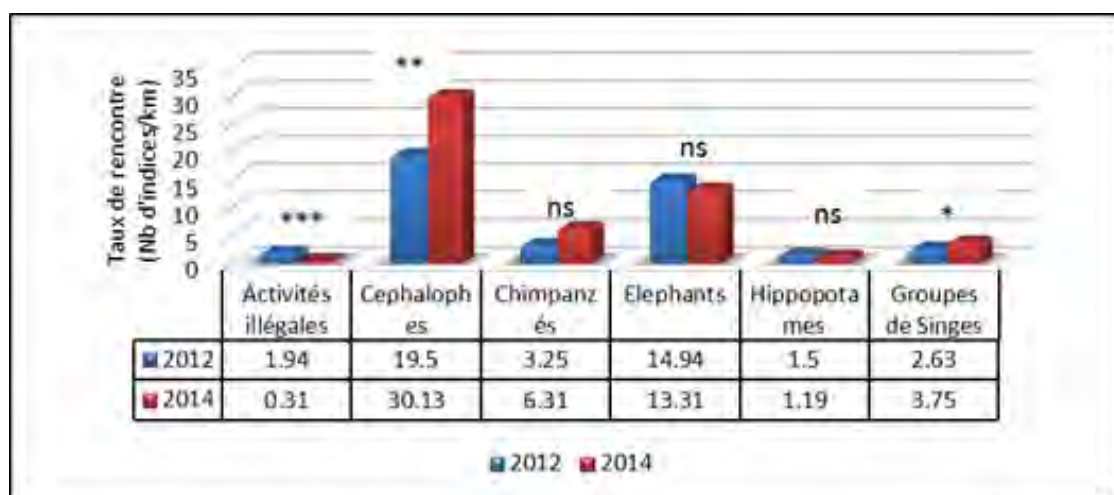


Distribution of monkey signs in the research area of TNP



Results from the **eco-tourism area in Djouroutou** show that between 2012 and 2014, there is a considerable reduction of 84 % in illegal human activities, as well as an increase of about 55% in the presence of duiker indices. Monkey groups were encountered more often, with an increase of 43%.

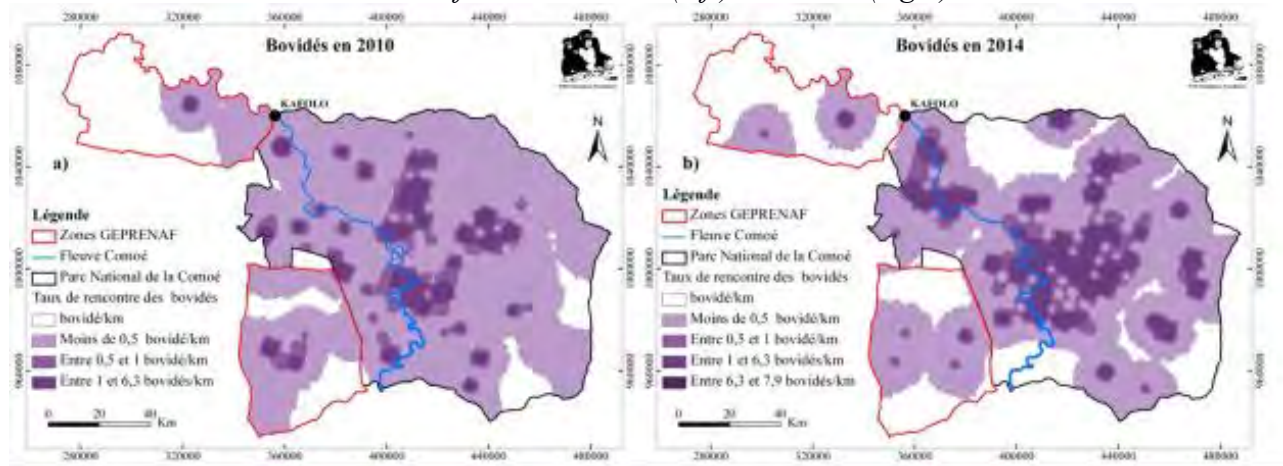
Encounter rates of large mammals in the eco-tourism area of Djouroutou



5.8 Biomonitoring in Comoé National Park, Côte d'Ivoire

WCF and OIPR completed an **aerial survey over Comoé National Park (CNP)** to control for the status of the park, the last survey happened in 2010. CNP was without any management between 2002 and 2010 until OIPR returned in 2010 and resumed their management activities. Between the 17th and 24th of April 2014, 2'955 kilometers spread over 45 linear transects of varying lengths, but systematically spread over the entire extent of CNP, were surveyed. In 2010, the estimated abundance (number of individuals) of bovids ranged from 7'998 to 14'064 individuals with the mean estimates being 11'090 individuals. In 2014, it was 11'004 to 19'146 individuals with the mean estimates being 15'075 individuals. The encounter rates ranged from 33.08 signs/km in 2010 to 48.44 signs/km in 2014. Direct observations of domestic animals decreased one hundred fold from 6'657 observations in 2010 down to 64 observations in 2014, rewarding the efforts of OIPR since they resumed management in 2010. Effective law enforcement protects wildlife.

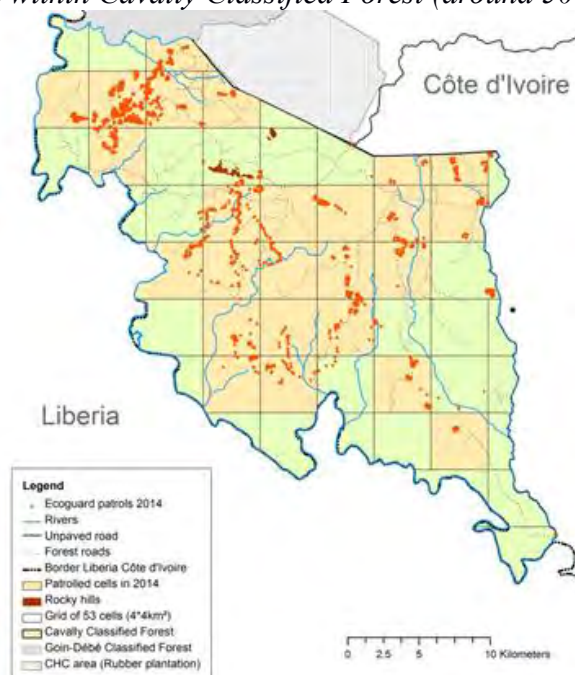
Distribution of bovids in 2010 (left) and 2014 (right)



5.9 Law enforcement patrols in Cavally Classified Forest, Côte d'Ivoire

WCF has continued its program of support to monitoring for **sustainable management of Cavally Classified Forest (CCF)** in 2014. This program has been supported by PUMA through GRASP-UNEP, European Union, United Nations Food and Agriculture Organization and UK Department for International Development. Two training sessions surrounding the patrolling methodology were organized (March and November 2014) to train SODEFOR officers of Forestry Society (STBC), which operate in CCF on the patrols strategies and the use of equipment (GPS, compass, collection sheet). About 14 SODEFOR officers, 5 STBC and 7 people from local communities were trained in CCF. Several monitoring missions were carried out by WCF in collaboration with SODEFOR and STBC with the objective to prevent illegal human activities, destroy plantations and to collect information on wildlife. Arrests of people that were clearly breaking the law were also performed by SODEFOR.

Areas patrolled within Cavally Classified Forest (around 50% of the forest)



Results of the monthly patrols in CCF

| Month | Patrols day per month | No. ha destroyed | No. shelters destroyed | No. traps destroyed | No. cartridges found | No. people arrested | No. nurseries destroyed | No. of areas cleared |
|--------------|-----------------------|------------------|------------------------|---------------------|----------------------|---------------------|-------------------------|----------------------|
| Jan | 12 | 41,25 | 21 | | 20 | 14 | 9 | |
| Feb | 16 | 37,19 | | | | 1 | | |
| Mar | 10 | 56,97 | 14 | | | 13 | | |
| Apr | 6 | 32,76 | 10 | | | 4 | | |
| May/Jun | 14 | 347,76 | 17 | | | 28 | | |
| Jul | 9 | 57,84 | | | | | | |
| Aug | 2 | 12,24 | | | | | | |
| Sep | 3 | 22,48 | | | | 1 | | 11 |
| Oct | 12 | 68,92 | 8 | | | 11 | | 47 |
| Nov | 6 | 64,23 | 4 | | 3 | | | 1 |
| Dec | 9 | 39,31 | 6 | 1 | 5 | 7 | 2 | 34 |
| Total | 99 | 702,51 | 80 | 1 | 28 | 79 | 11 | 93 |

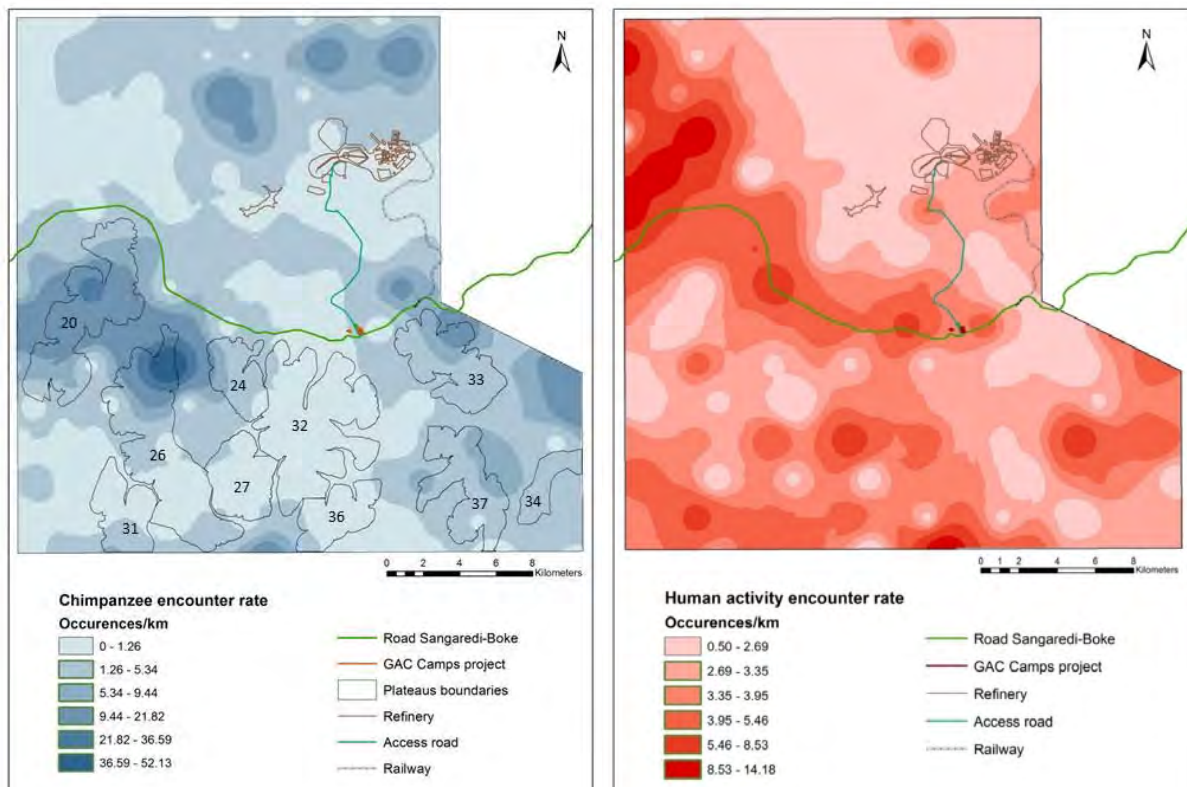
Illegal cocoa plantations and settlements were destroyed in CCF



5.10 Biomonitoring in Guinea Alumina Corporation concession, Guinea

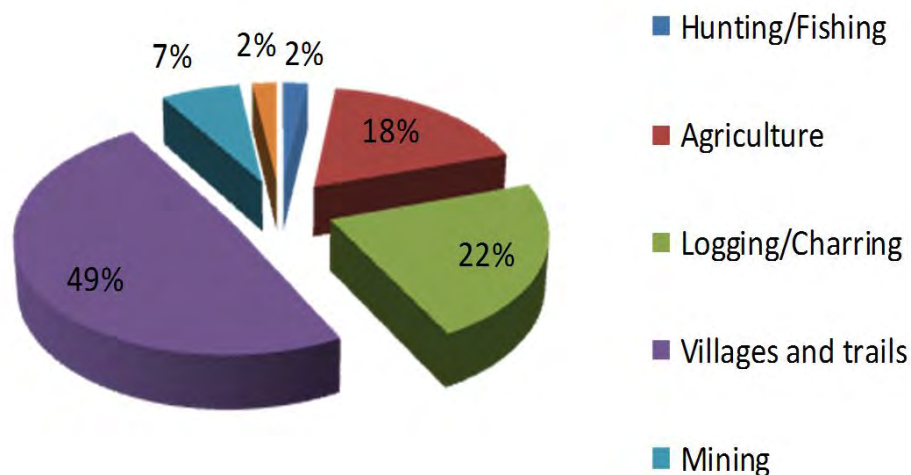
After the interruption of 2013, 2014 was the **fifth year of biomonitoring** since the beginning of the WCF-GAC collaboration. Still based on the IUCN guidelines (Kuehl et al. 2008), the 2014 biomonitoring followed 127 line transects of 2 km each, representing a total effort of 254 km. 16 local Guinean ecologists, trained during a full week by WCF, inventoried the 685 km² large area. The mean of the 4 first years of biomonitoring estimated the chimpanzee population to be composed of 176 individuals (WCF report 2012). In 2014, we calculated a mean density of 0.25 individuals/km² and a total population of **174 chimpanzees**. The chimpanzee population seems to remain stable for now, but the rapid development of the mining project will put them under a severe pressure in the near future.

Distribution of chimpanzee (left) and illegal human activities encounter rates (right) in 2014



Chimpanzee presence signs are higher where signs of human activities are lower. The expected increase of human presence with the start of mining activities during the next years will endanger directly this chimpanzee population. We expect a strong negative impact with an increase in illegal human activities in the future. GAC estimates that 14'000 jobs will be created. Lots of these new employees will be joined by their families, and others will join in the hope of finding a job. The majority will settle within the concession, and the pressures on the natural resources will be very high.

Different types of human signs observed in the GAC concession



The graph above describes the main threats of human activities in the GAC concession. It appears that the fragmentation and the destruction of habitat is the first anthropic pressure. WCF will produce and evaluate the implementation of a new biodiversity management plan, once GAC will have taken its final decision about the mining project.

5.11 Biomonitoring in the Foutah Djallon-Bafing Area, Guinea

Between 2013 and 2014, we surveyed a region of 8'000 km² around the Bafing River in Guinea, over 4 prefectures (Mainly Tougue, Dinguiraye, Mamou, Dabola). After a whole week of training, 15 Guinean assistants collected monitoring data during six months.

Foutah Djallon-Bafing Area (light brown) within Foutah Djallon (dark brown)

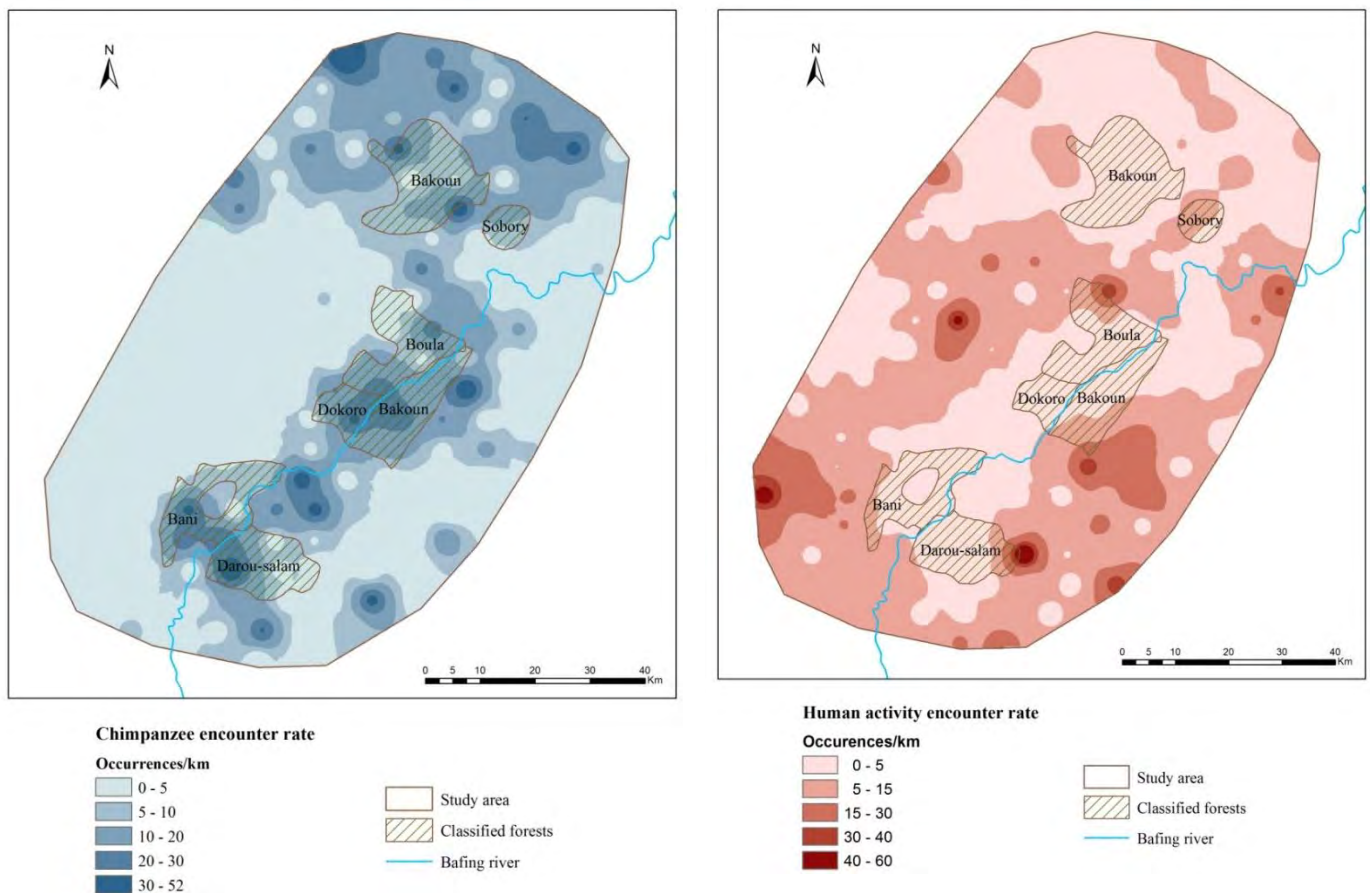


Biomonitoring team in FDBA, Guinea



We calculated the density of chimpanzees in FDBA and estimated 0.58 individuals/km², amounting to a total population of about **4'700 wild chimpanzees**, which makes it the biggest non-fragmented wild population in West Africa.

Distribution of chimpanzee (left) and human activities (right) encounter rates in FDBA



These two maps show how opposed the distributions of chimpanzees and human activities are, with the exception of one patch north to Boula Classified Forest, where both chimpanzees and humans are present, which represents a high potential for human-animal conflicts. The maps also show that the Classified Forests are the principle areas to harbour chimpanzees. Consequently, these forests should constitute priority core areas for an integrated project of landscape management. The aim is to receive a protected status for this important area, containing strictly protected Classified Forests, connected by ecological corridors, all surrounded by a buffer zone where sustainable human activities would be promoted.

In the same area, two complementary projects have been initiated:

- During 1 whole year, Lukas Boesch, PhD student of Leipzig University, collected data for a **socio-economic study** for his thesis. With his Guinean team, they interviewed approximately 1'200 people in more than 50 villages in the northern part of FDBA. Lukas is now analysing this big database and results should be available in 2016.
- A **Temporary Research Site of the Max Planck Institute Pan African Project** led by Anthony Agbor, has been functioning since February 2014. Settled near the Bakoun Classified Forest, in the northern part of FDBA, the site has already made new discoveries about chimpanzee behaviour. This project is planned to end in March 2015.

5.12 Monitoring of the Ebola outbreak in Guinea

WCF-Guinea was involved in a collaborative study on the recent Ebola virus epidemic in West Africa. In April 2014, with Robert Koch Institute of Berlin (led by Dr. Fabian Leendertz), World Health Organisation, Max Planck Institute of Leipzig, Charité University of Berlin and the support of WCF-Côte d'Ivoire, the team conducted surveys in protected areas surrounding the epicentre of the outbreak. We recorded no trace of the epidemic within wild fauna. But the veterinarians and the anthropologist confirmed the index case as a two-year old young boy from the village of Meliandou. It has probably been infected by insectivorous bats by playing in a hollow tree near the village. This discovery opens new research directions and gives tools to conservationists to better educate people about tropical diseases. The team published the results (Mari-Saez et al. 2015).

6 Sociological and bush-meat studies

6.1 Bush-meat study on trans-boundary markets in Côte d'Ivoire

The trade and consumption of bush-meat, which often includes species threatened with extinction, is another problem affecting conservation efforts in West Africa. WCF is monitoring this trade and consumption and is investigating the effect that environmental education is having on peoples' attitudes to bush-meat by measuring levels of consumption over extended periods of time. This effort is concentrated along the Liberian-Ivorian boarder. Data collection on the **trans-boundary bush-meat markets** continued in 2014 with data collection taking place at the markets of Daobly (data collection since 2009) and Tarsla (data collection since 2013). In 2014, the Liberian authorities (FDA) managed to close Daobly market, located 8 km from the village of Taï. This closure was a big success in the fight against bush-meat consumption in Côte d'Ivoire and meant that the data collection at Daobly market was complete. With regards to Tarsla market, due to its remote location, FDA had

attempted to close it, but the cross-border trade has continued. With the onset of the Ebola crisis in Liberia, Ivorian authorities took the decision to close all terrestrial borders between affected countries, effectively stopping the bush-meat trade at Tarsla market. Trading decreased at Tarsla market in August 2014. WCF will continue to monitor the situation in 2015 to check whether Tarsla market is taking up the trade once the terrestrial border re-opens. Data analysis for the past five years on the survey of 250 visits at the two bush-meat markets provide the following estimations: 11'600 animals were killed and sold. 60 % of the animals were ungulates, 32% primates and 0.4% chimpanzees. 20 fully protected species in Liberia and Côte d'Ivoire were sold. Among these, 14 are on the IUCN Red List, four are endangered, five are threatened, and five are near threatened. WCF will refocus its bush-meat studies in 2015 by performing a sociological survey in Liberia considering the closure of the trans-boundary bush-meat markets due to the Ebola crisis.

Bush-meat at the trans-boundary bush-meat markets in Daobly and Tarsla



6.2 Bush-meat study in Guinea Alumina Corporation concession, Guinea

We wanted to estimate the level of **bush-meat hunting and firewood production within and around GAC concession**. These are often uncontrolled and non-sustainable practices, while the impact on nature is severe. The aim was to know whether these activities, threatening wildlife and its habitats, had an economic importance. Between July and September 2014, a team of WCF ecologists surveyed the whole concession while pollsters collected information between Sangaredi and the Guinean capital. By comparing biomonitoring data and the results of the questionnaires, we noticed that the most encountered species within the area were also the most hunted. It suggests an opportunistic hunting method. In this region, hunters generally catch whatever they encounter. The most hunted animal groups are bovids (duikers, bushbucks) and rodents (cane rat, Gambian pouched rat) for one third each, followed by pigs (warthogs, red river hogs). Monkeys represent one tenth of the prey. 252 hunters have been interviewed. They earn in average 1336170 GNF/month (160 EUR), which represents three times the minimum legal salary in Guinea. Buccaneers earn more, with in average 2010588 GNF/month. The wood survey showed that some of the species being burned, such as *Lophira alata* (red iron wood) are particular highly threatened. Trees called Barwood (*Pterocarpus erinaceus*), Guinea plum (*Parinari excels*) and West African gum copal (*Daniellia oliveri*) are the most used trees. The carbonization process is not sustainable at all and dangerous, as fires are usually not properly controlled and turn into bush-fires. Both the hunting and wood related activities should be re-organized. People earning a sufficient income from them should be trained to manage these resources, while others should be encouraged to leave them and to improve their main activities, essentially agriculture. WCF and GAC wish to collaborate to develop more sustainable practices.

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- Conflict prevention and resolution in Taï National Park, Côte d'Ivoire (by Alec Crawford, 2013)
- WCF Chimpanzee Management Plan for the Guinea Alumina Project Concession, REPORT 2008-2010

9 WCF team

Part of the WCF team in Côte d'Ivoire



Part of the WCF team in Liberia



Part of the WCF team in Guinea

