



Darwin Initiative Main Project Annual Report

To be completed with reference to the "Writing a Darwin Report" guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

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Darwin Project Information

Project reference	24-018
Project title	Enhanced biodiversity, water-security, and forest recovery in northern Guinea.
Host country/ies	Guinea
Contract holder institution	Wild Chimpanzee Foundation (WCF)
Partner institution(s)	OGUIPAR, BIOTOPE, KEW GARDEN, World Vision Senegal, GRET, INSUCO
Darwin grant value	£334,878
Start/end dates of project	1 April 2017 – 31 March 2021
Reporting period (e.g., Apr 2017 – Mar 2018) and number (e.g., Annual Report 1, 2, 3)	April 2017 – March 2018 Annual Report 1
Project Leader name	Christophe Boesch
Project website/blog/Twitter	www.wildchimps.org , www.facebook.com/wildchimps
Report author(s) and date	Boesch Christophe, Boesch Hedwige, Gotanegre Arnaud, Vergnes Virginie, Marc Marine, Balandier Marie-Laure, Pacifique Kizila, Julia Riedel – 30/04/2018

1. Project rationale

Desertification in the Sahel and Sub-Saharan Africa is leading to changes in average temperature, altered patterns and limited availability of precipitations, extreme weather hazards (i.e. floods and droughts). Since local populations mainly depend on natural resources and agriculture, they are especially vulnerable to the impacts of climate change. The observed diminishing water levels in the rivers, rainfall shortage and severe drought are diminishing crop yields, thus lowering food security, and increasing human poverty.

Guinea is one of the poorest countries in the world. Indeed, the poverty rate increased from 53% in 2007 to 55% in 2012, ranking 182nd out of 188 countries in 2012 according to the Human Development Index. Moreover, anthropic activities, particularly uncontrolled deforestation for logging, bushfires, shifting cultivation and/or slash-and-burn agriculture are enhancing the desertification process. Also, biodiversity is highly threatened in this region, with deforestation leading to the destruction and the fragmentation of habitats and of essential resources for the critically endangered West African chimpanzees (*Pan troglodytes verus*) and other endangered wildlife.

Nowadays, Protected Areas seem to be a solution for biodiversity conservation and poverty alleviation through the application of an integrated and sustainable natural resource management. The new Moyen-Bafing National Park (MBNP), in northern Guinea, is intended to

protect the largest remaining population of critically endangered West African chimpanzees and its habitat, since about 5.000 wild chimpanzees were estimated in this area of 6.426 km², including 7 classified forests (WCF 2016, see the map in annexe 6).

Sociological studies (i.e. focus group, socio-economic studies) among Moyen-Bafing communities initiated, on the one hand, the understanding of the relationship between humans, their territory and natural resources, and, on the other hand, the difficulties experienced in their everyday life. These communities living in the MBNP, i.e. about 34.743 inhabitants, mostly traditional farmers with livestock are directly prone to the climate change's negative consequences. This represents a unique opportunity for an integrated conservation project committing local communities for climate change mitigation and poverty alleviation.

The Darwin-funded project is therefore trying to promote stabilisation of the hydraulic system and ensure long-term food and water security within the MBNP, benefitting both local biodiversity (particularly chimpanzee populations) and human communities.

2. Project partnerships

OGUIPAR – “Office Guinéen de Parcs et Réserves”: is the official body within the Ministry of Environment legally in charge of the protection and management of national parks and reserves in Guinea. WCF collaborates with OGUIPAR since the outset of our work in Guinea (2008) to achieve national conservation goals. The Minister of Environment, Water and Forest officially mandated WCF with OGUIPAR to work towards the creation of the Moyen-Bafing National Park in December 2015. Most activities from 2015 to 2016 have been conducted in collaboration with OGUIPAR. On the 28 September, 2017 a decree signed by the Minister of Environment, Water and Forest formalized the process of park creation. OGUIPAR and WCF then engaged on the operational phase for the national park establishment from 2018 to 2020.

OGUIPAR is part of the validation process of all the activities planned in the park (Terms of reference including methodologies). Some members of the OGUIPAR are part of the teams implementing the activities in the field, taking part as data collectors, supervisors and coordinators (1 member is permanent, 3 are included in biomonitoring programs and 12 are included for the consultation and land mapping activities). Moreover, the OGUIPAR higher management staffs are participating to the training of the local field member staffs.

WCF and OGUIPAR started to work together on the rural development projects in the MBNP, in particular the re-greening project also called the assisted natural regeneration (ANR). ANR programs are relatively new in Guinea, so it was important to include OGUIPAR from the beginning to this activity. Representatives of OGUIPAR taking part in the new programme could potentially reproduce their experience in other protected areas of the country.

World Vision Sénégal: is an international global Christian humanitarian organization and an important international actor to improve security for children, families, and their communities to improve the fight against poverty and injustice. They have implemented many agricultural projects in Africa, and particularly a farmed-managed natural regeneration (FMNR equivalent to the ANR) project in Senegal. In March 2017, WCF developed a collaboration with them to obtain more information about their project, and the first step has been to visit their project from the 11th to 18th of November 2017 in Kaffrine (Senegal). WCF team members met some representatives of World Vision and farmers supported by them (WCF/OGUIPAR, see activity 1.4). A second international mission of experience sharing will be planned with World Vision Sénégal with the MBNP innovative farmers.

Other partners involved in the execution of the project are:

- GRET, an international NGO, on the elaboration of the rural development strategy for the populations of the MBNP,
- Kew Royal Botanical Garden (UK) and the Guinean National Herbarium to execute botanical inventories and the classification of ecological habitats,
- BIOTOPE consulting to realize an ornithological inventory,
- INSUCO team members for community consultations as well as the mapping of the limits of rural territories and use of natural resources.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1: Reforestation / Mise-en-défens: Reforestation of 40 ha of gallery forests and headwaters alongside the creation of 10 ha of orchards (output 2) and capacity building for creation and maintenance of tree nursery, and farmer-managed natural regeneration (agro-ecology techniques) for innovative farmers.

1.1 A tree nursery established and 16,000 successful saplings (wild fruit trees used by human and chimpanzee) available for plantation (anticipating a potential 20% loss) by year 1

- A tree nursery of 0.07 ha is implemented along a main river “Laafawol” in Laafa Village, with fences preventing domestic and wild fauna (goats, baboons, chimpanzees) to prey on saplings. Nursery equipped with roofs to provide shadow, and a ditch to prevent flooding from the nearby river. Currently, the nursery of Laafa Bobé comprises approximately 12,690 plants, and we are expecting to reach around 15,000 plants for the year 2018.
- Tree species selected for the nursery were two-fold:
 - Trees valuable for wildlife: species producing fruit known to be consumed by wildlife or used for nesting, such as *Azizium africana*, *Daniellia oliveri*, *Dialium guineense*, *Cola cordifolia*, *Parinari excelsa*.
 - Trees valuable for the local human population: species known by economic-interest groups to profit from natural resources, such as *Carapa procera*, *Azizium africana*, *Dialium guineense*, *Erythrophleum guineense*, *Isobertinia doka*.

Furthermore, a new tree nursery will be created nearby the reforestation sites at the Boula Classified Forest.

1.2 An area of 40 ha is protected and reforested after site identification and consultation with community land owners by year 4.

The results will be achieved through the development of land management plans and special agreements with the communities targeted. The selection of a suitable pilot site for reforestation includes primary a ‘mise-en-défens’ or ‘restricted land-use’ contract with the communities. Site identification has been previously done before April 2017 (site at Laafa Boubé), but another mission has been conducted in March 2018 to complete the potential sites for tree nurseries and reforestation actions.

1.3 2 members of the local community (1 manager and 1 assistant) successfully trained to manage and maintain a tree nursery recruited and trained by year 1.

This has been achieved and local community members were recruited accordingly. 1 WCF manager supervisor was fully trained to sapling growth-rate monitoring, data entry, and team monitoring and management.

1.4 10-15 innovative farmers are selected from socio-economic studies in 5 to 10 communities inside the development zone of the MBNP to implement farmer-managed natural regeneration and share their experience with other communities in year 4

- After the WCF mission to the World Vision Sénégal projects, at the end of 2017, the WCF-OGUIPAR team agreed upon a list of criteria to consider as a priority for identifying intervention zones. As a result, Lallabara and Kalinko-Konkero districts were consensually identified by the team (see the map in annexe 6). The criteria are described below:
 - Located both in the northern corridor to facilitate the logistics for the first phase;
 - Located very close to the resource management zone of the MBNP (“Zone de Gestion des Ressources” or ZGR in French), as such villages will participate in an integrated natural resource management included in their community development plans;

- Being respectively Pulaar and Malinke, the two majority ethnic groups in the zone, to achieve a fair ethnic representation;
- Coming respectively under the administrative regions of Labé and Faranah, so as to integrate the two main authorities in the development of the project;

This output was partly achieved with the selection of 12 innovative farmers (including one woman) among 6 village communities located in the MBNP resource management zone. They were identified by their own community according to selection criteria, consensually established by the WCF-OGUIPAR team and adapted on the basis of World Vision Sénégal successful experiences. To achieve this selection process, 473 people were gathered during this mission, with 44% and 38% of female participants in Lallabara and Kalinko-Konkero districts. This illustrates the on-going efforts to enhance gender integration in the activities. Despite this significant female participation, only one female farmer was identified by the village communities.

The people from the Lallabara district identified Lallabara Centre, Sangan and Koulifakara as pilot villages where the project will support local communities in developing a farmed-managed natural regeneration project (FMNR). The people from the Kalinko-Konkero district identified Kalinko-Konkero Centre, Foungnany and Kalinko-Missira. The 12 farmers, all members of the selected villages, are willing to include in their farming practices some FMNR fields and to spread innovations to their peers by experience-sharing. A regular follow-up by phone is established between these 12 identified innovative farmers and the project team.

Furthermore, supporting actions for these 12 identified innovative farmers (e.g. supply in improved fireplaces, market gardening, and beekeeping, non-timber forest-product valorisation, such as *Vittelaria paradoxa* or *Parkia biglobosa*, will be provided for facilitating the introduction of FMNR into the current farming practices and to foster the transition period, as improved yields are expected to take one to two years. Offering supporting actions with direct visible and measurable impacts will motivate the innovative farmers. As a consequence, the project will look for additional funding sources to be able to propose these supporting actions.

1.5 Assisted natural regeneration is implemented in the field of the innovative farmers (10 to 15 fields) in 5 to 10 communities, and the productivity in their field is improved about 20% by the end of Year 4.

Innovative farmers and volunteers of the whole community will be trained and followed up in implementing a series of sustainable farming practices. However, only innovative farmers will benefit from a regular follow-up implemented to assess farm performances. Moreover, they will be part of a second international mission of experience-sharing with World Vision Sénégal. This mission is now planned to occur in year 2 to accommodate both the progresses of the project and the availability of our partners in Senegal.

A participatory agro-economic diagnostic will be performed in those villages from April to June 2018 to guide our future interventions among pilot villages on the reality of this region. Diagnostic outputs should contain a list of priorities to facilitate a successful transition of current farming practices to more sustainable and climate-smart ones. Additional training and regular support to the innovative farmers and their communities will be provided in a second phase, after diagnosis. Two mixed-gender teams of FMNR field officers will be based in the two pilot districts to ensure training, support, advices, and follow-up. Their recruitment is ongoing.

Output 2: Converted wetland on 3-5 ha of showcase converted wetland designed and tested in a participatory process with members of the local community trained in wetland management

2.1 A land management plan and collaborative management team created during year 2 for the pilot villages.

A communication system is being set up between WCF agents and community members to address questions and propositions relative to the implementation of the project. By year 2, and for the two districts (a district includes 2 to 10 villages) targeted for the pilot actions, land

management plans are created. Moreover, one or two additional districts will be selected from the entire 15 rural communes surrounding the national park to elaborate similar plans.

During the last quarter of year 1, the WCF team in collaboration with INSUCO has developed a participative map approach to prioritize information on communities' land boundaries, and on their use of natural resources. This information expanded with satellite image analysis will provide a refined detailed representation of the village territories to define the populations' relation with their space, and elaborate the land management plans with a collaborative management team for the pilot villages which are targeted for the FMNR farmers.

2.2 30 land management plans (30 villages) based on this model of consultation and elaboration will be done by end of year 4

The selection of the villages will be made according to the community consultation framework with the involvement of the communities' representatives and the government bodies. To cover to whole area of the national park in its creation process, each rural commune should have at least one village targeted until the final gazetting of the park (planned end 2019).

2.3 Minimum 21 people trained from local communities in wetland creation and management for sustainable agriculture by year 3 (10 days) - creation of 3 economic interest groups.

The selection process has not started yet, planned for year 3. The conversion of the wetlands needs to be defined through a larger agreement with the pilot communities, including the reforestation process (and mise en défens), the protection of specific natural resources (as defined in the three zones of the national park), and also the results of the agro-ecology diagnostic that is starting in April 2018. This last study will be enlarged to the entire area of the MBNP with the support of our partner GRET. The process will be organized through economic interest groups, relying on existing associations called "Groupement d'Intérêt Economique" (GIE) that WCF will reactivate, or create where necessary.

2.4 A 30% increase in agricultural yield for the pilot village

Relevant discussions will be developed for year 2 after the development of agricultural projects

Output 3. Establishment of and capacity building for the creation of 3 economic interest groups (EIG) to ensure the viability of the project and its production. Awareness tour to enhance improvement of agriculture practices based on lesson learnt. The aim is to ensure the acquisition of the knowledge and skill-base necessary for establishing and maintaining a plot of land for sustainable agriculture, while promoting a shift towards more sustainable methods, such as composting, recycling, and water conservation for enabling long-term food security and minimizing ecological impacts

Activities for this output will start in year 2. However, activities 1.5 and 2.3 started to create the basis for the output 3.

Output 4: Biomonitoring for collection of data that monitors the density and distribution of fauna (chimpanzees, other primates, bovidae, suidae, mammals, carnivores and other rare and threatened species) including birds throughout the proposed MBNP zone. This will be done in view of documenting and increased use of reforested areas and corridors by local wildlife with a specific protocol for pilot sites and a long-term monitoring of data

4.1 Increased use of reforested corridor by fauna by 20% in year 4

Monitoring the presence of the fauna in different parts of the MBNP will be followed through two different data collection protocols that, combined, will allow quantifying animal presence, abundance and habitat use:

- Long-term monitoring: In January 2017, 3 groups of 9 Bushnell camera traps each were installed in the northern sector of the park, one in the classified forest of Bakoun in the north, one in the classified forest of Boula in the middle, and one in the forest corridor in between these two classified forests. The aim of camera-trap monitoring was to

detected nocturnal and species rarely seen by human observers, and to determine the connectivity between the two classified forests.

- The cameras were dismantled in July 2017 (during the rainy season) and a total of 10,370 videos were saved, 3,083 from Bakoun Classified Forest, 4,287 from Boula Classified Forest and 3,000 from the northern forest corridor. Analysis of all videos requires about 200 working hours.
 - The camera trapping devices were reinstalled in September 2017 and are expected to continue until the next rainy season in 2018.
 - We presently analyse the sequences and already confirmed the presence of over 50 mammal species. This demonstrates the importance of the natural forest corridor between the two classified forests.
- Detailed animal population estimation: 100 cameras were bought under this Darwin grant, out of 300 cameras in total for the use in this project following a methodology developed by a PhD student under the supervision of Prof. C. Boesch and Prof. H. Kuehl from the Max Planck Institute for evolutionary Anthropology in Germany with the support of the environmental WCF-Guinea team. Four WCF employees were trained by the PhD student to this systematic protocol and a calendar-year data collection has been initiated to survey the fauna population in the whole of the park. The initiation of the project started in February with Prof. Boesch and missions to place all the 300 cameras are planned to be finished by May 2018. This monitoring design covers the 6426km² of the MBNP, and will improve our knowledge of the biodiversity in the park, especially concerning rare, elusive and night species. Two OGUIPAR agents will join the team in May 2018. Thanks to automated video-clip analysis we are expecting the first abundance estimate of key species in the coming months.

4.2 Increase of 20% in the number of different species using the corridors by year 4

Thanks to the camera trapping study, 50 mammal species have been confirmed, ranging from species like the baboon (*Papio papio*), the common warthog (*Phacochoerus africanus*), to the rarer species like the critically endangered western chimpanzee (*Pan troglodytes verus*), the endangered leopard (*Panthera pardus*), and the African golden cat (*Caracal aurata*). Two interesting species for the MBNP are regularly captured on video, namely the African buffalo (*Syncerus caffer brachyceros*) and the red flanked duiker (*Cephalophus rufilatus*). Finally, a new specie was confirmed this year, the Gambian mongoose (*Mungos gambianus*).

4.3 80% Species of birds specific to MBNP habitat types are known and monitored in year 4

An agreement with BIOTOPE is developed to provide a complete list of the bird species present in the MBNP. The main objectives are: i) to increase knowledge about the bird species in the MBNP with the simple point sampling method, and ii) to determine the presence and abundance of some indicator species for key habitats within the MBNP. The first mission will start in June 2018 during the rainy season, and the study will be completed with another field mission in October – December 2018.

4.4 First exhaustive list of bird presence in year 2

A first mission will take place in June 2018

4.5 First list of botanic species with focus on threatened species in year 2

The collaboration has been initiated with the Kew Royal Botanical Garden (UK) and the National Herbarium of Guinea to conduct botanical surveys in MBNP. The main objectives are to provide: i) a list of all the plant species found in the major vegetation types; ii) and to identify particular threatened species. A first mission occurred in February 2018 focussing on waterfall-plant communities, and it confirmed the biodiversity uniqueness of the park (see Annexe 4).

Three species of conservation concern were discovered (so far) at the Koukoutamba Falls in the MBNP:

- 1) *Stonesia taylorii* (provisional IUCN assessment endangered);
- 2) *Inversodicrea sp nov. aff abbayesii* (provisional IUCN assessment critically endangered);

3) New species to science of *Podostemaceae* family (provisional IUCN assessment endangered). The *Podostemaceae* family is restricted to clear waterfalls, usually requiring unpolluted, well aerated water, and a rock substrate.

A second mission will take place in May / June 2018 following a remote sensing analysis that allowed identifying the vegetation types in the MBNP. The list of botanic species that are threatened will be completed during year 2.

4.6 A complete database with fauna and flora, habitat, data over years is available for the MBNP and allow for improved understanding of project area

The database is being built with data including all our information gathered over the past years on mainly the fauna, hydrological and meteorological data. New collected data will be added to it on a regular basis to allow precise documentation in the changes of the situation.

The meteorological study, since 2016, was first confronted with the difficulty to find a protocol in the field that would resist to the tremendous violent rainfalls during the short rainy season between June and September each year. The WCF team has placed measuring scales on the 6 rivers in the MBNP. This water-level study is undertaken in the northern corridor region between the classified forests of Bakoun and Boula that serve as a wildlife corridor. These scales are placed on the rivers Bakouwol, Dansocoya, Kalouwol, Kokouwol, Bendekouewol and Laffawol near the villages of Laafa and Dansokoya. The scales are daily monitored by 3 local assistants and the data collection protocol will continue on a long-term basis and be expanded to the south of the park as well.

In February 2017, a small weather station with automatic recording of daily rainfall, humidity and temperature was installed in the village of Laafa-Kokoun. This has been reinforced in late 2017 with 3 new high-capacity professional hygrometry and temperature record devices

3.2 Progress towards project Outputs

Output 1: Reforestation / Mise-en-défens: Reforestation of 40 ha of gallery forests and headwaters alongside the creation of 10 ha of orchards (output 2) and capacity building for creation and maintenance of tree nursery, and farmer-managed natural regeneration (agro-ecology techniques) for innovative farmers.

1.1 A tree nursery established and 16,000 successful saplings (wild fruit trees used by human and chimpanzee) available for plantation (anticipating a potential 20% loss) in by year 1

Today, the tree nursery of Laafa comprises approximately 12,690 plants, and we are expecting around 15,000 for 2018. A new tree nursery will be created nearby the reforestation sites at Boula Classified Forest.

1.2 An area of 40 ha is protected and reforested after site identification and consultation with community land owners by year 4.

The results will be achieved through the development of land management plans and special agreements with the communities targeted. The selection of a suitable pilot site for reforestation include primary a 'mise-en-défens' or 'restricted land-use' contract with the communities.

1.3 2 x members of the local community (1x manager and 1x assistant successfully trained to manage and maintain tree nursery by year 1) and recruited

It has already been achieved and local community are recruited.

1.4 10-15 innovative farmers are selected from socio-economic studies in 5 to 10 communities inside the development zone of the Moyen-Bafing NP to implement farmer-managed natural regeneration and share their experience with other communities in year 4

12 innovative farmers (including one woman) were identified among 6 village communities located in the MBNP development zone (see the list in Annexe 4). They were identified by their own community according to selection criteria, consensually established by the WCF-OGUIPAR team and adapted on the basis of WVS successful experiences. These 12 farmers are willing to convert their farming system into FMNR system and they are ready to spread

innovations to their peers by experience sharing. A regular follow-up is established between these 12 identified innovative farmers and the WCF-OGUIPAR team.

Support for these 12 innovative farmers (e.g. supply in improved fireplaces, market gardening, beekeeping, non-timber forest product valorisation such as *Vittelaria paradoxa* or *Parkia biglobosa*) are necessary for facilitating the introduction of FMNR in the current farming systems and fostering the transition period. Indeed, benefits from FMNR are perceivable a few years after implementation. Supporting actions with direct visible and measurable impacts will push farmers to keep making efforts, and will encourage their peers to engage into FMNR. As a consequence, WCF-OGUIPAR will need to look for additional funding to afford these supporting actions.

1.5 Assisted natural regeneration is implemented in the field of the innovative farmers (10 to 15 fields) in 5 to 10 communities, and the productivity in their field is improved about 20% by the end of Year 4.

High-priority work themes and needs will be identified after the first participatory diagnosis. Aimed at succeeding the current system conversion into FMNR, innovative farmers will be trained and followed for sustainable farming practices, including FMNR. Supporting actions will be provided to foster the conversion period. Training will be provided to innovative farmers, and the whole community. Innovative farmers will benefit from regular follow-ups to assess the farm performance.

Output 2: Converted wetland on 3-5 ha of showcase converted wetland designed and tested in a participatory process with members of the local community trained in wetland management

2.1 1 Land Management plan and collaborative management team created during the year 2 for the pilot village.

Communication network is being set up between WCF agents and communities to ensure good cooperation and to address questions and propositions. By year 2, and for the two targeted districts a land management plan is created. Moreover, one or two others districts will be chosen from each rural commune in order to elaborate the same plan.

2.2 30 land management plans (30 villages) based on this model of consultation and elaboration will be done by end of year 4

With the community consultation framework and the participative mapping process, land management plans will be developed for the targeted villages in order to strengthen the co-management dimension for the MBNP and the final approval of its creation. Aiming to identify the targeted villages, the choice of the villages will be made accordingly to the community consultation framework with the involvement of the communities' representatives and the government bodies. In order to embrace to whole area of the national park for its creation purpose, each rural commune should have at least one village targeted until the gazettelement of the park (end 2019).

2.3 Min 21 people trained from local community in wetland creation and management for sustainable agriculture by year 3 (10 days) - creation of 3 economic interest groups.

Sites for the wetland creation have not yet been identified as the MBNP creation was delayed. The current actions on FMNR farmers and the development of land management plans will help to identify the relevant wetlands in year 2.

2.4 A 30% increase in agricultural yield for the pilot village
In year 2, the agricultural projects will be developed.

Output 3: Establishment of and capacity building for the creation of 3 economic interest groups (EIG) to ensure the viability of the project and its production. Awareness tour to enhance improvement of agriculture practices based on lesson learnt. The aim is to ensure the

acquisition of the knowledge and skill-base necessary for establishing and maintaining a plot of land for sustainable agriculture, while promoting a shift towards more sustainable methods, such as composting, recycling, and water conservation for enabling long-term food security and minimizing ecological impacts

Activities for this output will start in year 2. However, activities 1.5 and 2.3 are the basis for the output 3.

Output 4: Biomonitoring for collection of data that monitors the density and distribution of fauna (chimpanzees, other primates, bovidae, suidae, mammals, carnivores and rare and threatened species) and birds throughout the proposed MBNP zone. This will be done in view of documenting increased use of reforested areas and corridors by local wildlife with a specific protocol for pilot site and a long-term monitoring of data

4.1 Increased use of reforested corridor by fauna by 20% in Year 4

The camera trap system which is installed in 3 sites (Bakoun and Boula Classified Forest, and the corridor between them) shows already a connection between these two Classified Forests. We were able to detect rare species like chimpanzees (*Pan troglodytes verus*), leopards (*Panthera pardus*) and African buffalos (*Syncerus caffer brachyceros*). With the reforestation which is planned for 2018 in the classified forests of Bakoun and Boula, the use of this forest corridor by the fauna may have increased by year 4.

4.2 Increase of 20% in the number of different species using the corridors by year 4

At present, the system is set up for defining the species which are using the forest corridors. 50 species have been identified: for example, baboon (*Papio papio*), chimpanzee (*Pan troglodytes verus*), warthog (*Phacochoerus africanus*), leopard (*Panthera pardus*), African golden cat (*Caracal aurata*), African buffalo (*Syncerus caffer brachyceros*), and red-flanked duiker (*Cephalophus rufilatus*). A new species was confirmed, the Gambian mongoose (*Mungos gambianus*).

4.3 80% Species of birds specific to MBNP habitat types are known and monitored in year 4

A first mission will take place in June 2018.

4.4 First exhaustive list of bird presence in year 2

A first mission will take place in June 2018.

4.5 First list of botanic species with focus on threatened species in year 2

A first mission took place and has defined some important species (see annex 4). The list will be completed during year 2, and the project will continue to collaborate with a larger scale survey of threatened plant species and vegetation types in connection with the Guinea Important Plant Areas project.

4.6 1 complete database with fauna and flora, habitat, data over years is available for the MB NP and allow for improved understanding of project area

The database is available, mainly for the fauna right now, and information about flora and habitats are added.

3.3 Progress towards the project Outcome

The project outcome is: "Environmental rehabilitation through regeneration of 40ha of forest and improved sustainable agricultural practices to increase connectivity and to stabilize the hydraulic system to benefit local biodiversity and human populations as well as a long-term protocol for biomonitoring chimpanzee at Moyen-Bafing NP scale."

0.1 40 ha reforested achieving a 33% increase in forest cover within the valley of the pilot villages by the end of year 4:

As mentioned under outcome 2, the pilot projects have been initiated with 6 villages around the MBNP after a participative selection procedure. The rehabilitation of the environment will be reached through the development of land management plans and special agreements with the targeted communities. In addition, remote-sensing analyses with images from 2016 will help us

to identify the optimal areas around those villages where the prospects for increasing the forest cover seem most promising.

0.2 Forest clearance reduced by 80 % through less wood cutting, felling and burning in project pilot areas by the end of year 4:

Multiple traditional practices used by the communities lead to forest clearance, e.g. shifting cultivation, burning to enhance green and tender grass shoots for free-grazing cattle and logging. Fighting against deforestation is consequently a real challenge in the MBNP. The awareness raising project started in January 2018, WCF teams discuss the problems of deforestation with the local communities. 473 people were gathered during this first field mission with a participation rate between 5% and 43% of village habitants. Raising-awareness meetings about deforestation will be permanently held.

Although the farmed-managed natural regeneration project (FMNR) will help farmers in reducing the rhythm of agricultural rotation, the challenge will be to provide alternative solutions to firewood for household needs, and getting fodder for livestock consumption. Our partner GRET with its experience in this domain throughout Africa will be crucial to help the communities with such sustainable solutions.

0.3 By end of year 4, chimpanzee population is stabilized in the area of the Moyen-Bafing NP and biodiversity is increasing in the reforested valley with our pilot projects

Through a combination of decreased hunting pressure, increased reforestation, natural regeneration and decreased bushfires in the whole park, we expect to increase the carrying capacity of the park for many animal species, and especially the chimpanzees. This, in turn, is known to improve reproductive rates and leads to population increase. The output 4, activity 4.1, will provide us yearly population estimates of the chimpanzee population for the entire area. Combined with yearly estimates of forest cover and encroachment, this will give us the possibility to monitor the progress of the project and make necessary adaptations, if needed.

0.4 By end of year 4, 30-50 villages are aware of the agro-ecology practice to improve their agricultural practices

Presently, six villages have been selected for the pilot farmed-managed natural regeneration project (FMNR) implementation in the MBNP: Lallabara Centre, Koulikakara and Sangan in Lallabara district on the western side, Kalinko-Konkero Centre, Foungnany and Kalinko-Missira in Kalinko-Konkero district on the eastern side of the park. Following important consultations and discussion rounds, they all selected the agro-ecological model of FMNR as a potential solution to their decreasing yield problems, and 12 farmers were selected for developing it on their farm.

Inter- and intra-village visits will be organised to the FMNR fields to encourage other farmers to adopt the innovation. Each pilot village is expected with time to spread the innovations toward 5 to 10 neighbouring villages. The project field officers will facilitate the organization of such activities and will contribute to the innovations-diffusion mechanism (on-going recruitment).

In addition, the diffusion of agro-ecological practices will be reinforced by output 3 – sustainable agricultural practices. A tour to 30 villages in the MBNP is planned to provide 15 day-trainings about farming practices inspired from the experienced gathered in implementing projects in agro-ecology. The participatory diagnosis will help in identifying skills to be developed through training.

0.5 By end of year 4, 11-18% of villages in the Moyen-Bafing NP have a validated land-management plan for their territory

A detailed village territory map from all the 262 villages in the MBNP with several participatory consultations and the participation of INSUCO, the sociologist and anthropologist experts during 2018 will initiate the first land-management plans on one or two communities per sub-prefectures (rural commune).

0.6 30% of people attending workshops are woman, including the market garden economic interest groups

The governance model in the MBNP relies on a gendered power allocation with a strong patriarchal social organisation, which limits women expression. Although many women attended the awareness-raising workshops (44% in Lallabara district, 38% in Kalinko-Konkero

district, cf. enclosed mission report), they dared not always to speak freely in public in the presence of men. Based on this experience, the project team will concentrate on better planning of specific women-workshops and training for the future interventions with communities (in addition to mixed-gender meetings). This should facilitate women to speak out freely. Moreover, some supporting actions will be mostly dedicated to women so as to promote their empowerment (e.g. market gardening, non-timber forest product valorisation).

3.4 Monitoring of assumptions

A change request on the logframe has been submitted with the first half-year report of year-1 has been accepted. Due to a 10-months delay of the Guinean government to sign the crucial agreement for the park creation, we could not launch the community-linked activities in the MBNP as planned. Despite these internal politic issues, the WCF did its best to support this process involving 3 ministers and the prime minister. Indeed, without a legal confirmation of the park creation, it was not possible for the WCF to start consultations with the communities as proposed for Y1.

The assumptions are still true:

Guinea remains politically stable although the municipal election this past year had led strikes and general dysfunction. Another electoral step is expected early 2019 before the presidential election in 2020. Political agreements have been settled between the two main political parties, however, the tension remains. Regarding the project's implementation, some changes at the Ministry level are expected, and government priorities can be fluctuant.

The target local community is willing to partake in novel livelihood strategies. Consultation and communication with the target community is fundamental to ensure that no activities are undertaken without their voluntary support and participation. At present, the target local community remain willing to actively engage in the alternative livelihood strategies and retain committed to sustainable use of natural resources. A third consultation process is currently undertaken in order to survey the ambition of the community to pursue in the objective of the park creation. Trained individuals from the local community are continuing to collaborate with the project.

The biomonitoring method is robust and will allow monitoring the wildlife in the MBNP. This method is based on international IUCN standards that proved to be reliable in estimating wildlife populations (Buckland et al. 2001, Kuehl et al. 2008).

3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

One aim of the MBNP creation is to improve the water security for both nature and the human population in the region. Actually, downstream from its source, the Bafing River, which runs through the MBNP, becomes Senegal River, forming one of the major rivers of West Africa. Without ever being dry, the Bafing has a variable flow, depending on the season; there is an average ratio of 1 to 76 between low water (May) and high water (September). Thus, 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).

MBNP communities, particularly the elders, are already concerned and aware of their behaviour impacts on the environment, resulting in local changes (e.g. deforestation, rivers drying up, soil fatigue). These data about perceptions were collected during previous studies handled by WCF-OGUIPAR in 2016-2017 in 12 villages and 609 households (e.g. focus group study, socio-economic study, raising-awareness workshops and dialogues with communities during the mission of innovative farmers' identification). The participatory diagnosis will allow a deeper understanding of these perceptions. Communities are aware that adopting integrated natural resource management, especially for agriculture and livestock keeping activities and

possibly via FMNR, will improve their livelihood. As they start to be aware that deforestation around head waters will reduce accessibility to the water in the river. Even more awareness needs to be provided to have a higher impact on deforestation behaviour.

This project will further design and establish an irrigated wetland production system (5-10 ha). Wetlands have important economic functions for crops and vegetable gardens. The area will thus be used for rice paddies and for the implementation of 15 market gardens. In addition to the other support for agricultural production in the area, the project should have therefore a significant impact on food security. Moreover, the awareness tour on agricultural good practice will allow sharing lessons learnt for the first supported communities and encourage other communities to embrace those sustainable practices

4. Contribution to the Global Goals for Sustainable Development (SDGs)

By ensuring that all voices are heard through the development of a national and regional consultation process (underway) and socio-economic study (focus groups of men and women of all ages already undertaken), the project contributes to achieve goals 1, 2, 5, 6, 12 and 15 of the Global Goals for Sustainable Development which deal with poverty, hunger, gender equality, clean water, responsible consumption and life on land. Goal 13 on climate action will benefit from our project. The impact will be measurable around Y3 or Y4.

A theatre tour funded by Zürcher Tierschutz (co-fund) in May-June 2017, has contributed to goal 13 and 15 as the main message was about forest protection around head water in order to have clean water all year long.

The first mission to Sénégal and the selection of innovative farmers contributes to the goals 1, 2, 12, 13 and 15.

The tree nursery creation and management contributes to the goals 1, 2, 12 and 13.

5. Project support to the Conventions, Treaties or Agreements

This project helps Guinea in honoring its commitment to the CBD, in particular to achieve the Aichi Targets by contributing to the national goal of placing 15% of its terrestrial areas under protection by 2020.

The MBNP represents 3% of the terrestrial protected area of the Guinean territory.

The project further contributes to the three CBD objectives: 1) **To conserve biological diversity**; the creation of a new protected area will play a vital role in the protection of critically endangered chimpanzee (*Pan troglodytes verus*) populations, in conjunction with conserving other threatened wildlife and preserving the biodiversity of the region. 2) **Sustainable use of biodiversity**; gazettement of the park and zoning will support the sustainable use of biodiversity currently threatened by habitat degradation and fragmentation. Driven by poverty and unable to respond to internally and externally driven threats, this project aims to enable local communities to protect their local environment through capacity building and education, alongside other measures such as sustainable micro-projects. 3) **Equitable sharing of benefits from biodiversity**; local communities will be involved in all processes that lead to the establishment and protection of the park, and the value and relevance of their knowledge, innovations and practices towards the conservation and sustainable use of biodiversity recognised. Some employment activities and increased profitability of income generating activities as well as long-term benefits as a result of ecosystem restoration will concomitantly secure a more sustainable future for biodiversity and people.

6. Project support to poverty alleviation

Due to the broad scale of the MBNP project over an area of 6426 km² an estimated 35000 inhabitants of 262 villages and hamlets will be within one of the park's zones and will benefit either directly or indirectly from the project scope.

In the short-term, these communities benefit from educational initiatives, employment opportunities and the micro-projects put in place. At each field site, a local guide is employed to help undertake the activities and local staff was already recruited for the tree nursery. The market gardens will be headed by interest-groups contained mainly of women, and the management committees of the community territories include the socio-professional strata for which activities in favour of sustainable environmental management will be promoted. Also, the process of planting the trees and cutting the firebreaks for reforestation will employ around 20 people per village. Specifically, a rural development strategy is currently developed in partnership with relevant stakeholders (World Vision, GRET), and should be linked to the poverty alleviation regional strategies. Indeed, each sub-prefecture has a local development plan which will constitute the link with our initiatives and those of the partners.

In the long-term, benefit will come from the rehabilitation of the ecosystem contributing to stabilise the water functions and directly combating the ultimate cause of poverty in the region - the decrease crop productivity.

Moreover, much more attention is now given to this park creation by major agencies, such as the World Bank. An important issue is to support the human population living in or close to the MBNP, thus the impact of our funded activities promotes the complementary action of other development agencies. It goes without saying that support to communities and government will have to be done in respect with the park regulation.

7. Project support to gender equality issues

WCF is well aware of the gender issue and always insists in involving women, however not an easy task in a Muslim country. The WCF-Guinea director is a woman. WCF is recruiting employees for the implementation of the activities and promotes female employees. 1 female supervisor for land mapping has been recruited and 11 women among 20 persons will be trained for the land mapping before the final selection.

Although most of the chosen innovative farmers are men, the work on-site is very often done by women and WCF seeks the direct contact with them.

All our activities and socio-economics study, and specifically the setup of economic groups, have a focus on women and have specific discussion sessions with them in order to obtain their knowledge and perception.

More women will be integrated in the next years (Y2, Y3) especially for the activities of output 2 and 3.

8. Monitoring and evaluation

The WCF-project director oversees all activities coordinated on the ground by a team of an operational manager and an administrative/financial director. The project director visited the project 5 times this past year, and the WCF president joined in 4 times. Their monitoring is based on monthly reports done by the program officer, which indicates the progress of activities and indicators. Field missions have been conducted with Prof. Boesch, to ensure that the monitoring of environmental parameters and local camera-trapping protocols are functional, and changes in methodology adhere to the highest scientific quality.

Regular skype-meetings were conducted with the people in charge of the WCF-Guinea office allowing to talk about difficulties and, when needed, progress and adapt the approach with regard to the context. These skype-meetings can be weekly based, or extended to monthly ones, according to the development stage of the program. Moreover, WCF has recruited in February 2018 an administrative and finance director (Maxime Walens) to ensure to monitor all grants and expenses according to the logframe and workplan of the year.

Eilidh (Darwin project) has also offered to improve our M&E by having a work session of Benoit Rivard with Virginie Vergnes, this will be done in May 2018.

9. Lessons learnt

Due to the delay of the Guinean government to produce the decree of the park creation in due time, WCF was legally prevented to start the community activities as planned in our proposal. This delay was further complicated by the fact that the Minister of Environment was replaced in late January 2017, and this required many additional meetings between the new Minister and WCF in order to provide her with in-depth information about the project and the crucial necessary steps.

The development of new activities and programs with the set-up of new collaborations lasted longer than expected. We remain optimistic to reach the planned objectives. However, as the project progresses, we will see whether changes regarding the work-plan might become necessary.

Moreover, as the MBNP is funded by mining companies and the International Finance Corporation of the World Bank Group is our partner, we need to validate some specific studies with them, and this has to be considered in the planning of the activities.

10. Actions taken in response to previous reviews (if applicable)

Not applicable as this is our first annual report.

11. Other comments on progress not covered elsewhere

All the activities planned in the Darwin project fit with the action plan 2018-2020, validated by OGUIPAR and the mining companies to get the decree and ensure the integrity of environmental conditions with the support of local communities.

12. Sustainability and legacy

The development of a sustainable and solid financing scheme is being elaborated rapidly with mining companies and the International Finance Corporation of the World Bank Group. The aim is to achieve the adoption of an action plan 2018-2020 that should be strongly supported by mining companies in the years to come. Moreover, WCF is working with the government of Guinea to create a Public-Private Partnership in order to have an independent and transparent management-unit for the MBNP and follow a model of governance acceptable to our international partners. The local community consultations and support activities will result in a contractual agreement for the park creation by 2019. The aim is to obtain a presidential decree for the park creation until the end of 2019 that will formalize a unique model of national park governance being financed by the private sector.

13. Darwin identity

On 22 February 2018, the Ambassador of Great Britain, Mrs Catherine Inglehearn, and the Regional Director of the Environment in Labé, Mr Alpha Oumar Barry came on an official visit to the WCF office in Labé. Media coverage was provided by national television RTG and local radio stations.

Darwin initiative funding is part of a larger programme as it is co-funding of many activities of the MBNP project. Darwin is cited in our annual report as a specific donor for Guinea. However, Darwin initiative is the unique donor for the birds and botanical studies (contract just signed, so the reports will have the Darwin logo).

WCF has a Facebook and webpage with a news-section where we mention the Darwin grant about all activities funded by the Darwin initiative.

14. Project expenditure

The change request for the Year 1 budget has impacted the amount per budget category. Eilidh Young (Darwin Projects) has been informed about these changes and gave feedback via email. We did not have to submit a revised budget for the next years to obtain the new approval from Darwin, as the revised budget did not change the global amount of the project, and the Darwin finance team did not demand a split by chapter/budget lines.

Table 1: Project expenditure during the reporting period (1 April 2017 – 31 March 2018)

Project spend (indicative) since last annual report	2017/18 Grant (£)	2017/18 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			110	We recruited operating staff when field activities were delayed. We consequently overspend on staff costs.
Consultancy costs			160	In the initial proposal, WCF has planned to collaborate with consultants to conduct flora and bird studies. Due to the increase of activities, WCF wishes to launch contract with external partners in order to achieve main field mission before 2018 rain season. These consultants will work with their own teams. The amount planned for WCF field data collectors-cook for bird and flora in "staff costs" has been reallocated to consultancy costs.
Overhead Costs			104	
Travel and subsistence			103	
Operating Costs			54	Field operations were delayed due to institutional delay in the agreement (cf. budget request). The second mission to Senegal with the innovative farmers has been postponed due to the no availability of WVS before March 31 st .

Capital items (see below)			93	Due to the changes of the chimpanzee monitoring protocol, 105 cameras instead of 15 have been bought. The protocol requires 400 cameras; 300 have been bought with our co-fund. Field operations were delayed due to institutional delay in the agreement (cf. budget request).
Monitoring & Evaluation (M&E)			/	
Others (see below)			110	
TOTAL			100	

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-2018

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018
<p>Impact</p> <p>Promote stabilisation of the hydraulic system and ensure long-term food and water security within the Moyen-Bafing National Park, benefitting local biodiversity (particularly chimpanzee populations) and human communities.</p>		<p>MBNP communities, particularly the elders, are already concerned and aware of their behaviour impacts on the environment, resulting in local changes (e.g. deforestation, rivers drying up, soil fatigue). The awareness tour on agricultural good practice will allow to share lessons learnt for the first supported communities and encourage others communities to embrace those sustainable practices.</p>
<p>Outcome Environmental rehabilitation through regeneration of 40ha of forest and improved sustainable agricultural practices to increase connectivity and to stabilize the hydraulic system to benefit local biodiversity and human populations as well as a long-term protocol for biomonitoring chimpanzee at Moyen-Bafing NP scale.</p>	<p>0.1 40 ha reforested achieving a 33% increase in forest cover within the valley of the pilot village by the end of year 4.</p> <p>0.2 Forest clearance reduced by 80 % through less wood cutting, felling and burning in project pilot areas by the end of year 4.</p> <p>0.3 By end of year-4, chimpanzee population is stabilized in the area of the Moyen-Bafing NP and biodiversity is increasing in the reforested valley with our pilot projects.</p> <p>0.4 By end of year-4, 30-50 villages are aware of agro-ecology practice to improve their agricultural practices.</p> <p>0.5 By end of year-4, 11-18% of villages in the Moyen-Bafing NP have a validated land management plan for their territory.</p> <p>0.6 30% of people attending workshops are woman, including the market garden economic interest groups.</p>	<p>0.1 The results will be achieved through the development of land management plans and special agreements with the communities targeted.</p> <p>0.2 The WCF-OGUIPAR team has already started to raise awareness of communities about deforestation, and in January 2018, 473 people were gathered.</p> <p>0.3 The WCF-OGUIPAR team is defining currently the baseline data of the chimpanzee population for the entire area.</p> <p>0.4 Six villages are identified for the pilot FMNR project implementation in the MBNP. They were all presented the agro-ecological model of FMNR, and twelve farmers were identified for developing it on their own farm.</p> <p>0.5 First results will be achieved in year 2.</p> <p>0.6 Women considerably attended the WCF-OGUIPAR raising-awareness workshops (44% in Lallabara district, 38% in Kalinko-Konkero district), but they did not always dare to freely speak in public in the presence of men.</p>

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
<p>Impact</p> <p>Promote stabilisation of the hydraulic system and ensure long-term food and water security within the Moyen-Bafing National Park, benefitting local biodiversity (particularly chimpanzee populations) and human communities.</p>		<p>MBNP communities, particularly the elders, are already concerned and aware of their behaviour impacts on the environment, resulting in local changes (e.g. deforestation, rivers drying up, soil fatigue). The awareness tour on agricultural good practice will allow to share lessons learnt for the first supported communities and encourage others communities to embrace those sustainable practices.</p>	
<p>Outcome Environmental rehabilitation through regeneration of 40ha of forest and improved sustainable agricultural practices to increase connectivity and to stabilize the hydraulic system to benefit local biodiversity and human populations as well as a long-term protocol for biomonitoring chimpanzee at Moyen-Bafing NP scale.</p>	<p>0.1 40 ha reforested achieving a 33% increase in forest cover within the valley of the pilot village by the end of year 4.</p> <p>0.2 Forest clearance reduced by 80 % through less wood cutting, felling and burning in project pilot areas by the end of year 4.</p> <p>0.3 By end of year-4, chimpanzee population is stabilized in the area of the Moyen-Bafing NP and biodiversity is increasing in the reforested valley with our pilot projects.</p> <p>0.4 By end of year-4, 30-50 villages are aware of agro-ecology practice to improve their agricultural practices.</p> <p>0.5 By end of year-4, 11-18% of villages in the Moyen-Bafing NP have a validated land</p>	<p>0.1 The results will be achieved through the development of land management plans and special agreements with the communities targeted.</p> <p>0.2 The WCF-OGUIPAR team has already started to raise awareness of communities about deforestation, and in January 2018, 473 people were gathered.</p> <p>0.3 The WCF-OGUIPAR team is defining currently the baseline data of the chimpanzee population for the entire area.</p> <p>0.4 Six villages are identified for the pilot FMNR project implementation in the MBNP. They were all presented the agro-ecological model of FMNR, and twelve farmers were identified for developing it on their own farm.</p> <p>0.5 First results will be achieved in</p>	<p>0.1 Training of 30 persons will be performed to start with the land mapping and land management plan (2 – 10) and the 12 590 plants of the tree nursery will be used to reforest destroyed areas with the agreement of the communities. New plants will be collected for the next replanting season. 1-2 new tree nurseries will be created.</p> <p>0.2 WCF is developing a protocol of monitoring bush-fires and will continue the awareness meetings in communities.</p> <p>0.3 WCF-OGUIPAR team will define the baseline and the protocol of chimpanzee monitoring.</p> <p>0.4 12 innovative farmers will go to Senegal with WCF-OGUIPAR team to learn from the FMNR of World Vision Sénégal and will implement this in their village with the support of WCF-GRET.</p> <p>0.5 Following the land mapping mission, some villages will be selected for the</p>

	<p>management plan for their territory.</p> <p>0.6 30% of people attending workshops are woman, including the market garden economic interest groups.</p>	<p>year 2.</p> <p>0.6 Women considerably attended the WCF-OGUIPAR raising-awareness workshops (44% in Lallabara district, 38% in Kalinko-Konkero district), but they did not always dare to freely speak in public in the presence of men.</p>	<p>creation of the territory land management (selection based on the impact of the NP, and about the perception of the project).</p> <p>0.6 1 innovative farmer is a woman and will start with the implementation of FMNR in her village. This person could be one of the leader of the first awareness tour by the end of year 2 to share her experience and sensitize woman from other villages. The first EIG will be implemented too and be mainly composed of women.</p>
<p>Output 1. Reforestation of 40 ha of gallery forests and headwaters alongside the creation of 10 ha of orchards (output 2) and capacity building for creation and maintenance of tree nursery, and assisted natural regeneration (agro-ecology techniques) for innovative farmers.</p>	<p>1.1 A tree nursery established and 16,000 successful saplings (wild fruit trees used by human and chimpanzee) available for plantation (anticipating a potential 20% loss) in by year 1.</p> <p>1.2 An area of 40ha is protected and reforested after site identification and consultation with community land owners by year 4.</p> <p>1.3 2 x members of the local community (1x manager and 1x assistant successfully trained to manage and maintain tree nursery by year 1) and recruited.</p> <p>1.4 10-15 innovative farmers are selected from socio-economic studies in 5 to 10 communities inside the development zone of the Moyen-Bafing NP to implement assisted natural regeneration and share their experience with other communities in year 4.</p> <p>1.5 Assisted natural regeneration is implemented in the field of the innovative farmers (10 to</p>	<p>1.1 The tree nursery of Laafa comprises approximately 12,690 plants of 10 indigenous species. A new tree nursery will be created nearby the reforestation sites at the Boula Classified Forest.</p> <p>1.2 The results will be achieved through the development of land management plans and special agreements with the communities targeted (year 2).</p> <p>1.3 It has already been achieved and local community are recruited.</p> <p>1.4 It was partly achieved since 12 innovative farmers (including one woman) were identified among 6 village communities located in the MBNP development zone.</p> <p>1.5 High-priority work themes and needs will be identified after the first agro-ecology diagnosis in April 2018.</p>	

	15 fields) in 5 to 10 communities, and the productivity in their field is improved about 20% by the end of year 4.	
Activity 1.1 Site Identification (before April 2017)		The degraded lands in the classify forests of Boula and Bakoun have been targeted to be the first reforestation sites (especially for the spring head and the gallery forests) – the innovative farmers have been identified within 6 territories, including two districts (Lallabara and Kalinko-Konkero), and six villages (Lallabara Centre, Sangan and Koulifakara ; Kalinko-Konkero Centre, Foungnany and Kalinko-Missira).
Activity 1.2, Seeds collection		In 2017, a total of 20,124 seeds have been harvested, and seeded in the nursery.
Activity 1.3, Implementation of one tree nursery		A tree nursery of 0.07 ha is implemented along a main river “Laafawol” in Laafa Village, with fences preventing domestic and wild fauna (goats, baboons, chimpanzees) to prey on saplings, roofs to provide shadow, and ditch to prevent from flooding from the nearby river.
Activity 1.4, Training of manager (maintenance of tree nursery)		Two local residents (Baldé Mamadou Saliou and Amadou Mouctar Baldé) were trained in the management of the tree nursery.
Activity 1.5, Maintenance and replacement of dead saplings		To compensate losses, local assistants are trained to harvest new seeds. Under the supervision of a WCF staff, the nursery is regularly completed.
Activity 1.7, International Field mission for WCF/OGUIPAR team to learn from FMNR/RNA conducted by World Vision Sénégal		The WCF-OGUIPAR team met farmers supported by World Vision Sénégal for the implementation of Farmer-Managed Natural Regeneration (FMNR, RNA in French) on their farm, extension workers, advisors and experts from the 11th to the 18th of November 2017 in Kaffrine (Senegal).
Activity 1.8, Selection of 10 innovative farmers		Two innovative farmers per village have been identified in these six localities: Lallabara Centre, Sangan, Koulifakara, Kalinko-Konkero Centre, Foungnany and Kalinko-Missira. They are 12 in total.
Activity 1.9, International field mission for WCF/OGUIPAR and 10 innovative farmers team to learn from FMNR/RNA conducted by World Vision Sénégal		A second international mission of experience sharing was initially planned with World Vision Sénégal for the MBNP innovative farmers between January and March 2018. However, several points did not allow the organization of this mission on time.
Activity 1.10, Regular support to FMNR/RNA farmers		Training and regular support to FMNR innovative farmers and their communities will be provided in a second phase, after diagnosis. Two mixed-gender duos of FMNR field officers will be based in the two pilot districts to ensure training, support, advices, and follow-up.

<p>Output 2. 3-5 ha of showcase converted wetland designed and tested in a participatory process with members of the local community trained in wetland management</p>	<p>2.1 1 Land management plan and collaborative management team created during the year 2 for the pilot village.</p> <p>2.2 30 land management plans (30 villages) based on this model of consultation and elaboration will be done by end of year 4.</p> <p>2.3 Min 21 people trained from local community in wetland creation and management for sustainable agriculture by year 3 (10 days) - creation of 3 economic interest groups.</p> <p>2.4 A 30% increase in agricultural yield for the pilot village.</p>	<p>2.1 By year 2, and for the two districts targeted for the pilot actions in FMNR, a land management plan will be elaborated.</p> <p>2.2 Moreover, one or two others districts will be chosen from the entire rural commune (15) overlapping the MBNP, in order to elaborate the same plan until the gazettelement of the zone (end 2019).</p> <p>2.3 Sites for the wetland creation have not yet been identified as the creation of MBNP process was delayed. The current actions on FMNR farmers and the development of land management plans will help us to identify the relevant wetlands.</p>
<p>Activity 2.2, Creation of land management plans and collaborative management with consultation and assessment of agriculture potential of the village territory</p>		<p>For raising awareness, and in order to create constructive dialogue with the rural communities of the Moyen-Bafing zone, a theatre performance tour was organized with a professional Guinean actor troupe "Touchatout" from the 1st to the 21th of June 2017. Furthermore, a community consultation framework has been promoted by WCF – OGUIPAR for the creation of the MBNP and its management. Participative approaches are prioritized to obtain information on communities land boundaries, and on the use of the natural resources for elaborating co-management processes on the relevant ecosystems.(co-funded activities).</p>
<p>Activity 2.7, Follow up</p>		<p>Permanent activities</p>
<p>Output 3. Establishment of and capacity building for the creation of 3 economic interest groups (EIG) to ensure the viability of the project and its production. Awareness tour to enhance improvement of agriculture practice based on lesson learnt. Aim is to ensure the acquisition of the knowledge and skill-base necessary for</p>	<p>3.1 1 program of awareness of 15 days on agro-ecology is ready</p> <p>3.2 30 community members in 30 villages attending 10-15 days of agro-ecology workshop for change practice by end of year 4</p> <p>3.3 Capacity building of 3 economic interest groups (EIG) in the pilot village in regards of market</p>	<p>Activities are planned for year 2.</p>

<p>establishing and maintaining a plot of land for sustainable agriculture, while promoting a shift towards more sustainable methods, such as composting, recycling and water conservation for enabling long-term food security and minimizing ecological impacts</p>	<p>garden/rice/orchard production in converted wetland (according to land management plan). One EIG includes 7 community members, 21 persons in total (men and women) all agreed and committed to establishment and maintenance of community gardens by the end of year 3 (1 ha of converted wetland per group).</p> <p>3.4 10 days of training global micro-project management for economic interest groups (EIG) by the end of year 3.</p> <p>3.5 1 x starter-kit provided to each market/rice garden groups (wheelbarrow, tools, seeds, educational resources...) during year 3.</p> <p>3.6 8 workshops held in wider community at the end of year 4 to disseminate results and encourage replication of strategy.</p>	
<p>Output 4. Biomonitoring for collection of data that monitors the density and distribution of fauna (chimpanzees, other primates, bovidae, suidae, mammals, carnivores and rare and threatened species) and birds throughout the proposed MBNP zone. This will be done in view of documenting increased use of reforested areas and corridors by local wildlife with a specific protocol for pilot site and a long-term monitoring of data.</p>	<p>4.1 Increased use of reforested corridor by fauna by 20% in Year 4</p> <p>4.2 Increase of 20% in the number of different species using the corridors by year 4</p> <p>4.3 80% Species of birds specific to MB NP habitat types are known and monitor in year 4</p> <p>4.4 First exhaustive list of bird presence in year 2</p> <p>4.5 First list of botanic species with focus on threatened species in</p>	<p>4.1 The camera trap system which is working in 3 sites (Bakoun and Boula classified forest, and corridor between them) shows a connection between these two forests. With the reforestation process which is planned for 2018 in the classified forests, the use of this corridor by wildlife may increase by year 4.</p> <p>4.2 At present, the system is settled for defining the species which are already using the corridors. 50 mammal species have been detected.</p> <p>4.3 A first mission will take place in June 2018.</p> <p>4.4 A first mission will take place in June 2018.</p> <p>4.5 A first mission took place and has defined some important species. The list will be completed during year 2.</p> <p>4.6 The database is available, mainly for the fauna right now, more work needs to be done.</p>

	<p>year 2</p> <p>4.6 1 complete database with fauna and flora, habitat, data over years is available for the MB NP and allow for improved understanding of project area</p>	
Activity 4.1, Preparation of the long-term protocol MBNP park scale		In order to develop a long-term biomonitoring protocol for the MBNP, several preliminaries studies had to be implemented such as the chimpanzee nest degradation study, the meteorological and hydrological studies. All data are stored at WCF level and have given results.
Activity 4.2, Training of supervisor/ ecologues agents		In January 2017 a team was trained by WCF to take over the monthly maintenance of the cameras. Diallo Boubacar was supervising the project and was supported by Assane Sefou Beavogui from WCF. Local staff under the direction of these supervisors have been recruited and trained in 2017-2018 for maintenance and survey of the meteorological and the hydrological studies.
Activity 4.3, Field mission / camera trapping MBNP park scale		100 cameras were bought under Darwin grant (300 cameras were bought in total for this protocol) and the methodology has been developed by a PhD student under the supervision of Prof. Boesch and Prof. Kuehl from Max Planck Institute and with the support of the environmental program team of WCF Guinea.
Activity 4.6, Field mission / camera trapping village/local scale		In January 2017, 30 camera traps were systematically set up in the MBNP. Initially, 9 cameras each were installed in 3 study areas spread over the MBNP, one in the classified forest of Bakoun, one in the classified forest of Boula and one in the northern forest corridor between these two classified forests. Currently, at Boula there are 10. 50 mammal species have been detected.
Activity 4.7, Birds Study: field mission		An agreement with the agency BIOTOPE has been settled to develop a support of the bird study in the MBNP. The first mission will start in June 2018 during the raining season, and the study will be completed with another field mission in October – December 2018.
Activity 4.9, Flora Study: field mission		An agreement with the National Herbarium of Guinea has been settled in order to conduct botanical surveys in the MBNP. A first mission occurred in February 2018 and was focussing on waterfall species. Three species of conservation concern were discovered (so far) at the Koukoutamba Falls. A second mission will take place in 2018.

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: Promote stabilisation of the hydraulic system and ensure long-term food and water security within the proposed Moyen-Bafing National Park, benefitting local biodiversity (particularly chimpanzee populations) and human communities.</p>			
<p>Outcome: <i>(changes expected from the project and who is expected to benefit):</i></p> <p>Environmental rehabilitation through regeneration of 40ha of forest and improved sustainable agricultural practices to increase connectivity and to stabilize the hydraulic system to benefit local biodiversity and human populations as well as a long-term protocol for biomonitoring chimpanzee at Moyen-Bafing NP scale.</p>	<p>0.1 40 ha reforested achieving a 33% increase in forest cover within the valley of the pilot village by the end of year 4</p> <p>0.2 Forest clearance reduced by 80 % through less wood cutting, felling and burning in project pilot areas by the end of year 4</p> <p>0.3 By end of year-4, chimpanzee population is stabilized in the area of the Moyen-Bafing NP and biodiversity is increasing in the reforested valley with our pilot projects</p> <p>0.4 By end of year-4, 30-50 villages are aware of agro-ecology practice to improve their agricultural practices.</p> <p>0.5 By end of year-4, 11-18% of villages in the Moyen-Bafing NP have a validated land management plan for their territory</p> <p>0.6 30% of people attending workshops are woman, including</p>	<p>0.1 Data collection from satellite image analysis for base-line forest cover assessment and on-the-ground monitoring;</p> <p>0.2 Data collected from 2017 socioeconomic survey to assess baseline land clearance rates and to evaluate improvements throughout the projects duration</p> <p>0.3 Project surveys from data collected by the yearly biomonitoring study to assess the density and distribution of fauna and flora will show an increase against baseline data</p> <p>0.4 Data collected from 2017 socioeconomic study to assess baseline income</p> <p>0.5 Data from 2017 socioeconomic survey assessing current yield levels (yield per hectare) will monitor increase against baseline data</p> <p>0.6 Workshop reports, and presence</p>	<p>Government Departments continue to support and facilitate the implementation of the National Park</p> <p>Note 1: OGUIPAR (Ministry of Environment, Water and Forest) has validated and collaborated with WCF throughout all project stages, in particular, when defining priorities. They will be represented within the steering committee and will remain fully involved throughout the project.</p> <p>Country remains politically stable.</p> <p>Note 2: Guinea has remained relatively politically stable for the last 8 years. The WCF has experienced no problems throughout our duration there. The country has been declared free of the Ebola virus, as stated on the FCO website</p> <p>The target local community is willing to partake in novel livelihood strategies</p> <p>Note 3: The 2016 Focus Group study and initial consultation stage implemented with the local community throughout the project</p>

	<p>the market garden economic interest groups,</p>	<p>list</p>	<p>area has identified a level of willingness to partake in this project. Consultation and communication with the target community will be fundamental to ensuring that no activities are undertaken without their voluntary support and participation</p> <p>The target local community remain willing to actively engage in the alternative livelihood strategies and retain committed to sustainable use of natural resources</p> <p>Note 4: We will place a strong emphasis on capacity building and communication emphasizing the importance of participatory management and to ensure that everybody involved has a good knowledge and understanding of project steps and outcomes and the benefits of sustainable strategies. An evaluative process will furthermore be fundamental – given the project’s participatory approach</p>
<p>Outputs:</p> <p>1. Reforestation of 40 ha of gallery forests and headwaters alongside the creation of 10 ha of orchards (output 2) and capacity building for creation and maintenance of tree nursery, and assisted natural regeneration (agro-ecology techniques) for innovative farmers.</p>	<p>1.6 A tree nursery established and 16,000 successful saplings (wild fruit trees used by human and chimpanzee) available for plantation (anticipating a potential 20% loss) in by year 1</p> <p>1.7 An area of 40ha is protected and reforested after site identification and consultation with community land owners by year 4.</p>	<p>1.1 Tree nursery productivity data and planted saplings growing rate monitoring data</p> <p>1.2 Regular site visits to ensure effective protection and on-the ground monitoring</p> <p>1.3 Regular site visits for on-the ground monitoring and continuing training</p>	<p>Soil perturbation of degraded land does not prevent assisted regeneration of natural occurring trees</p> <p>The target community is willing to partake in a reforestation project</p> <p>See Note 3 above</p>

	<p>1.8 2 x members of the local community (1x manager and 1x assistant successfully trained to manage and maintain tree nursery by year 1) and recruited</p> <p>1.9 10-15 innovative farmers are selected from socio-economic studies in 5 to 10 communities inside the development zone of the Moyen-Bafing NP to implement assisted natural regeneration and share their experience with other communities in year 4</p> <p>1.10 Assisted natural regeneration is implemented in the field of the innovative farmers (10 to 15 fields) in 5 to 10 communities, and the productivity in their field is improved about 20% by the end of Year 4.</p>	<p>1.4 Contracts for two locally employed staff for tree nursery management, having attended training workshop; training report</p> <p>1.5 WCF annual report presenting results;</p> <p>1.6 WCF socio-economic study analysis and consultation with communities reports to select around 10 innovative farmers.</p>	<p>The target community is willing to adapt their current unsustainable practices by reducing slash and burn/tree cutting in order to facilitate long-term reforestation.</p> <p>See Note 4 above</p> <p>This is part of process “win-win” the combination between reforestation in communities land and gain by the wetland creation along the river they will to protect (output 2).</p>
<p>2. 3-5 ha of showcase converted wetland designed and tested in a participatory process with members of the local community trained in wetland management</p>	<p>2.5 1 Land Management plan and collaborative management team created during the year 2 for the pilot village.</p> <p>2.6 30 land management plans (30 villages) based on this model of consultation and elaboration will be done by end of year 4</p> <p>2.7 Min 21 people trained from local community in wetland creation and management for sustainable agriculture by year 3 (10 days) - creation of 3 economic interest</p>	<p>2.1 Copies of legal documents pertaining to voluntary donation of 50 ha of village land for project activities</p> <p>2.2 Minutes from community consultation meetings</p> <p>2.3 Results from training workshop (number of people attended; results from practical tests)</p> <p>2.4 Monitoring and reports of crop yield</p>	<p>The target local community is willing to participate in this novel approach and are receptive to adapting their current non-sustainable practices.</p> <p>Note 4 above</p> <p>The showcase converted wetland will be accepted by the local community and will successfully increase crop yields and ultimately yearly income</p> <p>The target local community remain willing to actively engage in the</p>

	<p>groups.</p> <p>2.8 A 30% increase in agricultural yield for the pilot village</p>	<p>2.5 Minutes from meetings held with other villages within the zone and community engagement measured by number of people attending</p>	<p>alternative livelihood strategies.</p> <p>Note 3 and 4 above</p> <p>Trained individuals from the local community will continue to participate and remain with the project.</p>
<p>3. Establishment of and capacity building for the creation of 3 economic interest groups (EIG) to ensure the viability of the project and its production. Awareness tour to enhance improvement of agriculture practice based on lesson learnt. Aim is to ensure the acquisition of the knowledge and skill-base necessary for establishing and maintaining a plot of land for sustainable agriculture, while promoting a shift towards more sustainable methods, such as composting, recycling and water conservation for enabling long-term food security and minimizing ecological impacts</p>	<p>3.1 1 program of awareness of 15 days on agro-ecology is ready</p> <p>3.2 30 community members in 30 villages attending 10-15 days of agro-ecology workshop for change practice by end of year 4</p> <p>3.3 Capacity building of 3 economic interest groups (EIG) in the pilot village in regards of market garden/rice/orchard production in converted wetland (according to land management plan). One EIG includes 7 community members, 21 persons in total (men and women) all agreed and committed to establishment and maintenance of community gardens by the end of year 3 (1 ha of converted wetland per group.</p> <p>3.4 10 days of training global micro-project management for economic interest groups (EIG) by the end of year 3</p> <p>3.5 1 x starter-kit provided to each</p>	<p>3.1 Progress measured (plot maintenance, vegetable yield, income gained) via interviews and site evaluation on a six monthly basis</p> <p>3.2 6 months interval interviews will gauge sustained interest in the scheme, and evaluate technical support required</p> <p>3.3 Income from excess production expected after year 2</p> <p>3.4 WCF report presenting results</p> <p>3.5 On-going on the ground technical support and regular evaluation of progress throughout project duration</p>	<p>The target local community groups are first willing, and second, retain willingness to explore alternative livelihood diversification strategies.</p> <p>Note 3 and 4 above</p> <p>The success of the pilot project will be encouraging the wider local community to adopt these approaches.</p>

	<p>market/rice garden groups (wheelbarrow, tools, seeds, educational resources...) during year 3</p> <p>3.6.8 workshops held in wider community at the end of year 4 to disseminate results and encourage replication of strategy</p>		
<p>4. Biomonitoring for collection of data that monitors the density and distribution of fauna (chimpanzees, other primates, bovidae, suidae, mammals, carnivores and rare and threatened species) and birds throughout the proposed MBNP zone. This will be done in view of documenting increased use of reforested areas and corridors by local wildlife with a specific protocol for pilot site and a long-term monitoring of data</p>	<p>4.1 Increased use of reforested corridor by fauna by 20% in Year 4</p> <p>4.2 Increase of 20% in the number of different species using the corridors by year 4</p> <p>4.3 80% Species of birds specific to MB NP habitat types are known and monitor in year 4</p> <p>4.4 First exhaustive list of bird presence in year 2</p> <p>4.5 First list of botanic species with focus on threatened species in year 2</p> <p>4.6 1 complete database with fauna and flora, habitat, data over years is available for the MB NP and allow for improved understanding of project area</p>	<p>4.1 Video clips of camera located in reforested corridors</p> <p>4.2 Analysis of video clips over the whole NP</p> <p>4.3 Frequency of visits to different cameras</p> <p>4.4 Published results of the biomonitoring study</p> <p>4.5 Habitat targets to strategy ecological restoration are known</p>	<p>The biomonitoring method used allows to monitor the wildlife in the Moyen-Bafing area</p> <p>Note 5: The method is based on international IUCN standards that have proved to be reliable in estimating wildlife populations (Buckland et al. 2001, Kuehl et al. 2008)</p> <p>The target local community is willing to participate in this novel approach and are receptive to adapting their current non-sustainable practices.</p> <p>Note 4 above</p>

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Co de No.	Description	Gender of people	Nationality of people	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Total planned during the project
1A	Number of people to submit thesis for PhD	Male	French			1			1
1B	Number of people to attain PhD						1		1
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	Male/ Female	Guinean	13 (4 Guinean male were formed in FMNR, 2 Guinean male were formed in tree nursery management, 1 Guinean male in maintenance of the cameras, 5 male in hydrological survey, 1 OGUIPAR male was formed in FMNR)	44 (11 males/ 1 female will be trained in FMNR, 2 OGUIPAR agents will be trained to monitor camera traps, 30 male/female will be trained for land mapping)	21 persons will be trained on project management		13	78
6B	Number of training weeks to be provided			4 (2 weeks for camera trap monitoring, 1 week on FMNR in Senegal, 1 week on land mapping)	6-7 (2 weeks for FMNR + long-term encadrement per farmer, 2 weeks for camera trap monitoring, 2-3 weeks for land mapping)	2 on project management for IEG		4	12-13
7	Number of (i.e., different types - not volume - of material produced) training materials to be produced				One manual for land mapping. One manual for camera trapping One manual for FMNR.	One guideline for project management. One sensitization kit for awareness (good practice – video, poster translated in local language)			5
	Number of			One action plan for the finalisation of		One management plan will be		1	2

9	species/habitat management plans to be produced for Government, public authorities, in the host country			the MBNP creation and priority actions for 2018-2020 has been produced by WCF and was validated by government.		available for habitat and species for the MBNP.			
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording			One manual for mammals is available (camera trap monitoring).	One manual for identification of birds.			1	2
11 A	Number of papers to be published in peer reviewed journals					2	1		3
11 B	Number of papers to be submitted to peer reviewed journals				2	1			3
12 B	Number of computer based databases to be enhanced and handed over to the host country			1					1
13 B	Number of species reference collections to be enhanced and handed over to the host country(ies)				1				1

14 A	Number of conferences/s eminars/ workshops to be organised to present/disseminate findings					8 (share experience in village awareness tour)			8
14 B	Number of conferences/s eminars/ workshops attended at which findings from Darwin project work will be presented/disseminated.				2 (inter-ministerial commission meeting, ESIA validation meeting of Koukoutamba dam in the MBNP)	2 (inter-ministerial commission meeting, ESIA validation meeting of MBNP)	1 (inter-ministerial commission meeting)		5
22	Number of permanent field plots and sites to be established during the project and continued after Darwin funding has ceased				12 FMNR projects		1 protocol for chimpanzee monitoring		14+
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work			Tierschutz / Theater : 15 925 USD = 11 250 GBP GACF / CC2 = 20 744 USD = 14 650 GBP GACF / ESE (Socio Economic Assessment) = 11 762 USD = 8 300 GBP Trust Company / Biomonitoring : 66 046 USD = 46 700 GBP			80900 GBP		

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	yes
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	no
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	yes
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	no
Have you involved your partners in preparation of the report and named the main contributors	yes
Have you completed the Project Expenditure table fully?	yes
Do not include claim forms or other communications with this report.	