

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)

Submission Deadline: 30th April 2018

Darwin Project Information

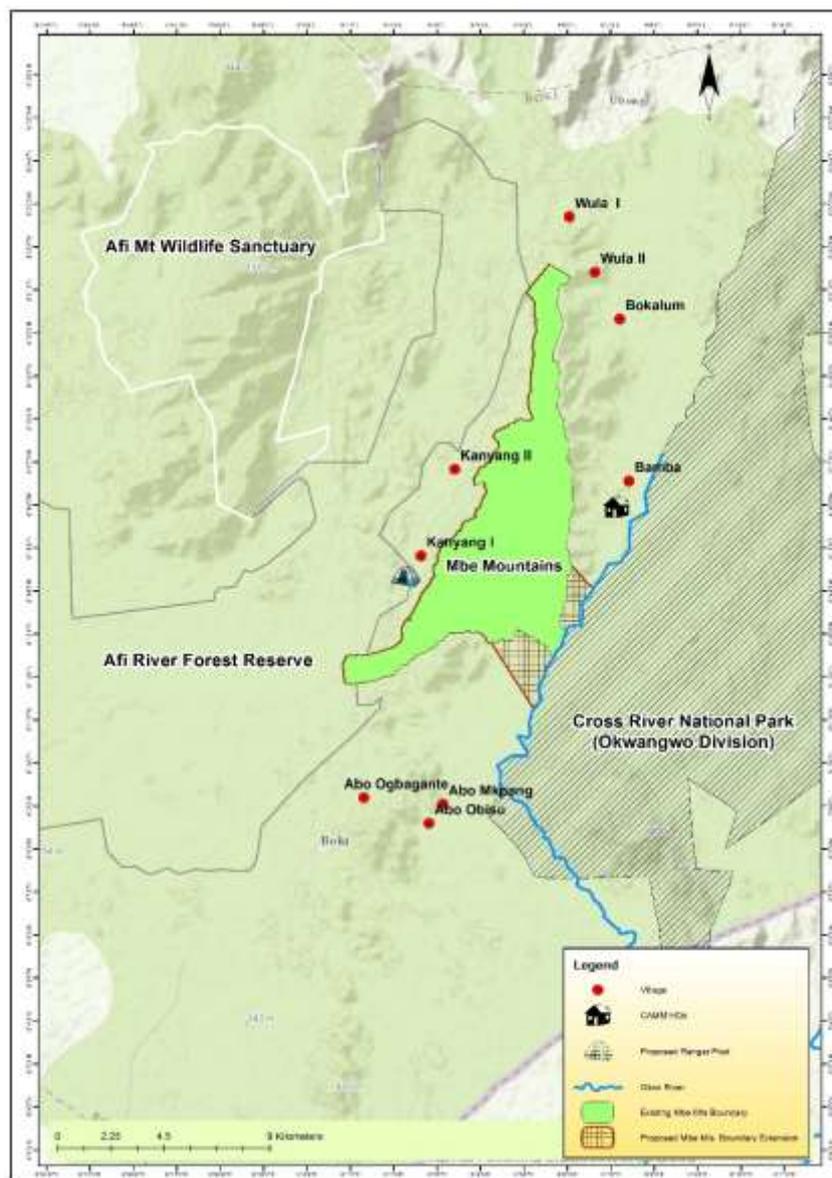
Project reference	24-001
Project title	Improving forest governance for Cross River gorillas and Nigerian farmers
Host country/ies	Nigeria
Contract holder institution	Wildlife Conservation Society
Partner institution(s)	1) Conservation Association of Mbe Mountains; 2) Cross River State Ministry of Climate Change and Forestry; 3) Cocoa Research Institute of Nigeria (CRIN); 4) Boki Local Government Area
Darwin grant value	£303,641
Start/end dates of project	1 April 2017
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	Inaoyom Imong
Project website/blog/Twitter	Website: https://nigeria.wcs.org/ Facebook: https://www.facebook.com/CRgorilla/ Twitter: https://twitter.com/WCS_Nigeria
Report author(s) and date	Inaoyom Imong, Ogechi Nwachukwu, Andrew Dunn; April 2018

1. Project rationale

The Cross River gorilla (CRG) is the most threatened ape in Africa, with a total remaining population of less than 300 individuals. Hunting to supply the bushmeat trade is the most significant direct threat to the species, and although CRGs are protected in Nigeria, they are still occasionally killed by hunters when snares placed in the forest for smaller mammals inflict potentially fatal injuries. Given the small size of the remaining CRG population, the loss of even a few individuals to hunting represents a serious threat to the long-term survival of the species. Although many CRGs are found within formal protected areas such as national parks, approximately 100 CRGs (one-third of the remaining population) survive on community land that lacks any legal protection, such as the Mbe Mountains in Nigeria. In 2005, the nine communities surrounding the Mbe Mountains agreed to manage the landscape as a community wildlife sanctuary (though not yet formally recognised by the government) to protect its 25-30 resident

gorillas and promote local development. The Mbe forest is critical to the livelihood of approximately 12,000 people living around Mbe. Farmers in the area traditionally clear small plots of forest each year to plant cash crops; the deforestation rate within the landscape is 2.2% per annum, among the highest anywhere in the world. Continued forest loss threatens local watersheds and livelihoods – through loss of water security, soil stabilization, and reduced resiliency to climate change – further exacerbating levels of rural poverty. Habitat loss and fragmentation also pose a serious threat to the forested corridor that currently links the Mbe Mountains to the adjacent Cross River National Park. If this corridor is destroyed and opportunities for natural dispersal are lost, the CRGs in the Mbe Mountains would become genetically isolated and their long-term survival will be unlikely.

The Mbe Mountains are located in southeast Nigeria close to the border with Cameroon. Rising to heights of 900 meters, they are a critical link between an increasingly isolated subpopulation of gorillas in the Afi Mountain Wildlife Sanctuary and those in the Okwangwo Division of Cross River National Park in Nigeria and other sites in Cameroon. Mbe is located within a recognized biodiversity hotspot of global significance that is home to many other endangered species such as the drill (*Mandrillus leucophaeus*) and the Nigeria-Cameroon chimpanzee (*Pan troglodytes ellioti*). Mbe currently lacks formal protection status. However, in 2005, the nine communities living around the mountain resolved to manage the area themselves for wildlife conservation. Since that time, WCS Nigeria has been working with the local people through the community-based Conservation Association of the Mbe Mountains (CAMM) and the Cross River State Forestry Commission (CRSFC) to set aside and manage a core area at the heart of the Mbe Mountains for the purposes of biodiversity protection.



Map 1: Location of the Mbe Mountains within the Cross River gorilla landscape in Nigeria

2. Project partnerships

On this project, WCS is partnering with the Conservation Association of Mbe Mountains (CAMM), the Cross River State Ministry of Climate Change and Forestry (MCCF), Cocoa Research Institute of Nigeria (CRIN), and the Boki Local Government Area (Boki LGA).

CAMM is playing the critical role of mobilizing the community buy-in and support for the project that is necessary for its sustainability. Over the past year WCS, has worked closely with CAMM to implement project activities including law enforcement, development and formalization of bylaws to protect the Mbe Mountains, legal gazettement of the Mbe conservation area, and training of men and women’s groups in improved cocoa farming and bush mango collection, storage and marketing.

WCS is working with the MCCF on the process to officially recognize the Mbe Mountains as a community wildlife sanctuary. As the government agency with responsibility for the management of all forests within Cross River State, the MCCF is helping to facilitate engagement with the Cross River State Government on the gazettement process.

CRIN has provided technical advice and support for cocoa and bush mango training.

WCS is working with Boki LGA and CAMM to develop and formalize bylaws to protect the Mbe Mountains.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1. Local farmers have been trained to increase efficiency of existing cocoa farms

WCS and CAMM organized consultation meetings with the nine Mbe communities to introduce the project and ensure the necessary understanding of and support for the project. We conducted a Basic Necessities Survey to establish a baseline of household wellbeing in the Mbe communities. A total of 602 households were surveyed, and data was collected using the software *Miradi* on handheld input devices. The baseline established will allow future evaluation of the impact of the project. A baseline governance evaluation of CAMM has also been conducted using the Natural Resources Governance Tool (NRGT). The results will guide support for capacity building training of CAMM to strengthen the group's authority and capacity to govern resources in the Mbe Mountains. During the community sensitization visits, individual farmers were identified in each community for training in improved cocoa farming to increase their productivity. Training of cocoa farmers could not be conducted this year as planned. Necessary agreements and arrangements with the cocoa farmers could be completed in time for this training to take place in year 1. However, necessary preparatory work has been done with the farmers, and the training will be completed in year 2. The delay will not significantly impact project completion and success. In addition to the training, the project will support farmers with improved cocoa seedlings for the phased replacement planting of existing, old farms.

Output 2. Local women's groups and young men trained in improved bush mango collection, processing, storage and marketing

Following the baseline surveys conducted this year, 400 women were trained in bush mango processing, storage, and marketing, as well as propagation. The women will also learn how to raise bush mango nurseries for planting on their farms, and in degraded forest areas around their communities.

Output 3. Protection of the Mbe Mountains is enhanced and community land tenure secured through legal recognition of 127km² as a "Community Managed Wildlife Sanctuary".

As a first step in the gazettement process, the project assisted CAMM in submitting a formal application to the Cross River State Government, through the Ministry of Climate Change & Forestry, for the official gazettement of the Mbe Mountains as a community wildlife sanctuary. The project supported a number of the General Assembly of CAMM as well as meetings between CAMM and the Cross River State Ministry of Climate Change and Forestry to discuss plans to move the gazettement process forward. The project is supporting CAMM's legal adviser to coordinate the development of relevant documents to support and strengthen the application for legal gazettement including a letter to be signed by each of the nine Mbe communities donating their land inside the Mbe Mountains conservation area to CAMM. Such documents strengthen CAMM's application and facilitate the issuance of a 'Certificate of Occupancy' for the Mbe Mountains conservation area by the Cross River State Government.

Output 4. The effectiveness of law enforcement interventions of WCS and local communities is improved for Mbe Mountains ecosystem.

During the first year of the project, WCS trained 14 CAMM ecoguards and the Mbe Project Manager in the use of SMART for law enforcement and gorilla monitoring. A 5-day training workshop was organized in Calabar in November 2017. The training was conducted by Dr. Richard Bergl of North Carolina Zoo and covered the use of SMART for patrol planning, data

analysis, and reporting. Refresher training was provided for the Mbe ecoguards in the field each month alongside patrols. During the period, WCS supported CAMM ecoguards to complete a total of 60 SMART-based patrols in the Mbe Mountains over 2,336 man-days, covering a total distance of 2,466 km. Using SMART, WCS monitored attributes such as distance walked and the number of patrol days completed, as well as human threats such as the frequency of wire snares, hunting camps, and empty shotgun shells discarded by hunters. A total of 32 people were apprehended for illegal activities (11 persons for hunting, 12 for NTFP collection, and 4 for farming) and were reported to CAMM for sanctions. A system of fines imposed and enforced by CAMM is used to deter illegal activities in the Mbe Mountains. In addition, 806 active wire snares (and 297 unset snare wires) and 9 hunting camps were destroyed (Table 1). The patrol data was presented as maps and tables (patrol statistics, patrol coverage, encounter rate and distribution of human activities) in monthly, quarterly and annual reports which are shared with CAMM and other stakeholders. Information from previous patrols was used to plan subsequent patrols. WCS will continue to support CAMM ecoguards to carry out law enforcement patrols in the Mbe Mountains to reduce levels of hunting and other illegal activities.

Table 1. Hunting signs recorded for the period April 1, 2017 to March 31, 2018.

Sign	# of observations	Encounter rate/km
Gunshots heard	32	0.013
Set wire snares	806	0.327
Unset wire snares	297	0.120
Empty cartridges	318	0.129
Hunting camps	9	0.004

The project also supported the development of bylaws to strengthen the protection of the Mbe Mountains. During this reporting period, the project supported several meetings of the General Assembly of CAMM to draft bylaws which were presented to the Boki Local Government Legislative House for consideration, ratification, and formalization. The bylaws are now undergoing final review before signing by the Executive Chairman of Boki LGA.

3.2 Progress towards project Outputs

Outputs:

1. Local farmers have been trained to increase efficiency of existing cocoa farms.

A Basic Necessities Survey was conducted to establish a baseline of households' wellbeing in all project communities for future evaluation of the impact of the project's support to cocoa farmers and women's groups. Beneficiaries have been identified in each target community for training and plans are being finalized for the training that will begin in year 2. We anticipate that by the end of Year 2, a total of 2,500 farmers (men and women) will have been trained and equipped with the skills to increase the productivity of their cocoa farms.

2. Local women's groups and young men trained in improved bush mango collection, processing, storage and marketing.

After the Basic Necessities Survey, the project selected and trained a total of 400 women in bush mango propagation, processing, storage and marketing. The trainees will also be provided with bush mango seedlings for planting on their farms and in degraded areas to boost output.

Output 3. Protection of the Mbe Mountains is enhanced and community land tenure secured through legal recognition of 127km² as a "Community Managed Wildlife Sanctuary".

Progress has been made towards realizing this output and it is likely that it will be achieved by the end of the project. The project has supported CAMM, which made a formal application to the Cross River State Government for the official gazettement of the Mbe Mountains as a

community wildlife sanctuary. The project is assisting in the development of relevant supporting documents to strengthen the application and facilitate the issuance of a 'Certificate of Occupancy' for the Mbe Mountains conservation that will secure community land tenure and enhance the forest governance and biodiversity conservation in the Mbe Mountains.

Output 4. The effectiveness of law enforcement interventions of WCS and local communities is improved for Mbe Mountains ecosystem.

The project is making progress toward this output. During this first year, SMART training was provided for the Mbe ecoguards and 60 SMART-based patrols were completed, resulting in the apprehension and sanctioning of 32 people by CAMM. A total of 806 active wire snares and nine hunting camps were destroyed. The project also supported the development and formalization of bylaws to strengthen the protection of the Mbe Mountains. The use of SMART is improving the effectiveness of law enforcement patrols and will enhance enforcement of the bylaws. We will continue to implement SMART in the Mbe Mountains and we are confident that the formalization of the bylaws will be achieved before the end of this project.

3.3 Progress towards the project Outcome

The expected outcome of the project is that critical habitat for Cross River gorillas in the Mbe Mountains is legally recognized and effectively co-managed, benefiting 12,000 people through improved cocoa production, bush mango harvesting and watershed protection. Achievement of this outcome will be indicated by; 1) no decrease in gorilla nest counts per km and a 10% increase in the area occupied by gorillas in the Mbe Mts by end of Y4 as compared to baseline; 2) no net loss of forest within the corridor and rate of forest loss in the buffer zone decreases by 30% by end of Y4; 3) household wellbeing indices increase by 10% due to improved cocoa production and bush mango collection by the end of Y4 when compared to baseline established in Y1. These indicators remain adequate for measuring this outcome.

During this first year of the project, we successfully launched a process for the legal gazettement of the Mbe Mountains with a formal application made to the Cross River State Government through the Ministry of Climate Change and Forestry. 60 anti-poaching patrols were completed by 14 ecoguards helping to protect critical Cross River gorilla habitat in the Mbe Mountains while enhancing watershed protection. Capacity building training provided this year is expected to increase income generation from bush mango collection. Plans are being finalized for training of cocoa farmers in year 2. The training will increase efficiency of cocoa production on existing farms while reducing deforestation through reduced need to clear new areas of forest each year.

3.4 Monitoring of assumptions

Assumption 1: Benefits provided by improved cocoa techniques and sustainable bush mango collection, combined with effective law enforcement, are sufficient to influence local attitudes and behaviours towards CRG and their habitat.

Comment: This assumption is still considered valid, and will be confirmed in subsequent years of the project after benefits from improved cocoa techniques and sustainable bush mango collection begin to accrue, and their impact on the protection of the gorillas and forest in the Mbe Mountains can be evaluated against baseline.

Assumption 2: Communities and Cross River State Government are willing to embrace sustainable management of their forests for conservation purposes and there are no competing commercial interests such as logging or oil palm development.

Comment: This assumption is still considered valid and critical to the success of the project.

Assumption 3: Farmers actively and fully participate in and complete training

Comment: This assumption is still considered valid and critical to the success of the project.

Assumption 4: Weather conditions remain favourable for cocoa.

Comment: This assumption is still considered valid and critical to the success of the project.

Assumption 5: Market price for cocoa remains favourable keeping buyers interested.

Comment: This assumption is still considered valid and critical to the success of the project.

Assumption 6: Conservation contracts are socially accepted and provide sufficient incentive to protect the forest.

Comment: This assumption is still considered valid and critical to the success of the project.

Assumption 7: Bush mango value chain remains profitable for collectors and incentivizes forest protection.

Comment: This assumption is still considered valid and critical to the success of the project.

Assumption 8: Conservation contracts are socially accepted by women and young men and provide sufficient incentive to protect the forest.

Comment: This assumption is still considered valid and critical to the success of the project.

Assumption 9: Government of Cross River State is willing to recognise customary rights and local land tenure.

Comment: This assumption is still considered valid and critical to the success of the project.

Assumption 10: Improved law enforcement is supported by local communities and maintains a net positive impact on local livelihoods.

Comment: This assumption is still considered valid and critical to the success of the project.

Assumption 11: Community-created sanctions act as sufficient deterrent and reduce levels of illegal activity.

Comment: This assumption is still considered valid and critical to the success of the project.

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

This project is contributing to the conservation of Cross River gorillas and the Mbe forest. The Mountains are part of the rainforests of Cross River, a globally recognized biodiversity hotspot with high levels of species richness and endemism, and over 64 species of reptiles, 61 species of amphibians, 54 species of fish, 18 primates and about 1,570 plant species, many of which are globally threatened. The Mbe Mountains are home to a number of threatened species such as the Cross River gorilla *Gorilla gorilla diehli* (CR), Slender-snouted crocodile *Mecistops cataphractus* (CR), Nigeria-Cameroon chimpanzee *Pan troglodytes ellioti* (EN), Drill monkey *Mandrillus leucophaeus* (EN), Red-eared monkey *Cercopithecus erythrotis* (VU), African forest elephant *Loxodonta africana* (VU), Grey-headed rockfowl *Picathartes oreas* (VU), African grey parrot *Psittacus erithacus* (VU), and White-bellied pangolin *Phataginus tricuspis* (VU).

This project is contributing to biodiversity conservation through improving effectiveness of law enforcement patrols of the Mbe Mountains. The project is also contributing to human development and wellbeing through the provision of benefits to surrounding communities from

improved cocoa techniques and sustainable bush mango collection and marketing, as well as watershed protection.

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

Activities implemented under this project contribute to the following six SDGs: (1) End poverty in all its forms everywhere; (2) End hunger, achieve food security and improved nutrition and promote sustainable agriculture; (5) Achieve gender equality and empower all women and girls; (6) Ensure access to water and sanitation for all; (13) Take urgent action to combat climate change and its impacts; (15) Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss. The project contributes to SDGs 1, 2, and 5 by supporting sustainable agriculture and increasing benefits from forest products, focusing on women. By improving the protection of the Mbe Mountains, the project is contributing to SDGs 6, 13, and 15.

5. Project support to the Conventions, Treaties or Agreements

This project is supporting the government of Nigeria to meet its obligations towards the Convention on Biological Diversity (Goals A, B, C, D and E). The project is also contributing to Aichi Targets 1, 5, 7, 11, 12, 14 and 18. The project is contributing to Aichi Target 5 by improving outputs from existing cocoa farms to reduce the need to clear new farms, thereby reducing deforestation and forest fragmentation. The project is working with communities to sustainably manage a forest buffer zone around the wildlife sanctuary to achieve Target 7. Official recognition of the Mbe Mountains as a community-managed wildlife sanctuary will contribute to Nigeria's protected areas system, helping to achieve Aichi Target 11. The project is also contributing to Target 12 by improving the protection of the wildlife sanctuary to reduce bushmeat hunting and improve the conservation of threatened species including the Cross River gorilla (Critically Endangered), Nigeria-Cameroon chimpanzee and the drill monkey (both Endangered). Supporting community-led protection of the Mbe Mountains and surrounding buffer zone is contributing to the maintenance of traditional knowledge and ecosystem services, thereby contributing to Aichi Targets 14 and 18.

In the last 12 months, the project has interacted with the CBD and CITES focal points in Nigeria on a number of occasions, including during a workshop in Abuja organized by WCS.

6. Project support to poverty alleviation

The project directly benefits 3,000 men and women in communities around Mbe through improved cocoa production and increased income from bush mango. The Mbe Mountains is an important source of water and forest products for surrounding forest dependent communities. Indirectly, the project benefits approximately 12,000 people living around the Mbe Mountains through watershed protection and maintenance of ecosystem services resulting from protection of the Mbe forest.

The project has made a good start in its first year, completing a Basic Necessities Survey to establish a baseline of wellbeing in the target communities for future monitoring of project impact. 400 women have been trained in bush mango propagation, storage and marketing and now have valuable skills to increase income from bush mango collection. Plans for cocoa training are being finalized and the training will begin in year 2. 60 law enforcement patrols of the Mbe Mountains were completed this year helping to reduce hunting of wildlife and deforestation.

7. Project support to gender equality issues

The project design takes into account the understanding that the governance system in the project area tends to marginalize women. If conservation of the Mbe Mountains is to be successful, then all groups, particularly women who use forest resources for daily household needs, must be engaged in forest governance. The project is working to ensure that women are

actively and adequately involved in the livelihood activities implemented. For example, the bush mango training and support focuses mainly on women, and 400 women have been trained this year. Consideration is also being given to women in the training and support for improved cocoa production will be provided under the project. At least 30% of the beneficiaries of the cocoa training and support will be women.

8. Monitoring and evaluation

We monitored progress of the project based on the following key indicators:

Status of gorillas

To monitor the status of gorillas we collected and analysed data on the number of gorilla nest sites per km walked each month. We will continue to collect this data annually and compare results to baseline level at the end of the project to evaluate project impact.

Status of forest cover within the corridor

We collected and analysed 2017 land cover data for the Mbe conservation area to assess changes in forest cover compared to baseline established at the start of the project. (see attached results of analysis). We will continue to collect and analyse land cover data for the area annually and compare to baseline at the end of the project to evaluate project impact. We expect a zero net loss of forest within the corridor area and a deforestation rate not greater than 50% in the buffer zone if the project is successful.

Capacity of farmers and NTFP collectors

During this first year, we completed training of a total of 400 women in improved bush mango collection and marketing. We will complete training of cocoa farmers and begin annual monitoring of application of the skills acquired from year 2.

Household well-being

A Basic Necessities Survey was conducted in year 1 to establish a baseline of the level of wellbeing against which to monitor project progress annually and evaluate impact at the end of the project. At the end of Y4 we expect a 10% increase in household wellbeing due to improved cocoa production and bush mango collection, processing and marketing.

Protected area status of the Mbe Mountains

We monitored progress towards the legal gazettement of the Mbe Mountains as a community wildlife sanctuary through meetings with CAMM and the Ministry of Climate Change and Forestry in Cross River State. Success will be indicated by official recognition of the Mbe Mountains as community-managed wildlife sanctuary by the Cross River State Government by end of Y4.

Improved bylaws and governance

Progress on the development and formalization of bylaws for the Mbe Mountains was monitored through regular meetings with CAMM who is engaging directly with the Boki LGA on the process. Success will be indicated by official endorsement of the bylaws by the Boki LGA.

9. Lessons learnt

Working closely with CAMM on this project has been extremely valuable in terms of securing the much needed community buy in and support for the project.

Using SMART has greatly improved effectiveness of law enforcement patrols and law enforcement monitoring.

Progress on the official gazettement of the Mbe Mountains was slow due to bureaucratic constraints. However, the project is now working more closely with CAMM's legal adviser to facilitate engagement with the Cross River State Government on the process and we expect to make greater progress in the coming years.

Progress on cocoa and bush mango training was slow due to delay in the recruitment of a livelihood officer for the project. Finding a suitably qualified candidate to fill the position was challenging and took longer than envisaged. However, WCS successfully recruited and trained a livelihood officer and an assistant and is now moving forward with the proposed activities.

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

NA

11. Other comments on progress not covered elsewhere

12. Sustainability and legacy

The Mbe Mountains is an important site for biodiversity conservation in Nigeria – one of only three gorilla sites in Nigeria, and home to the endangered Nigeria-Cameroon chimpanzee, drill, and other threatened wildlife such as forest elephant, pangolin, and the critically endangered slender-snouted crocodile. There is growing interest from both the Federal Government of Nigeria and the Cross River State Government in the conservation of the Mbe Mountains. CAMM which manages Mbe is legally registered with the Corporate Affairs Commission of Nigeria, and the Cross River State Government, through the Ministry of Climate Change and Forestry and the Cross River State Forestry Commission, has supported conservation efforts in Mbe for a number of years.

Activities implemented under this project are shared on the WCS website at: <https://nigeria.wcs.org/>; and on Facebook: <https://www.facebook.com/CRgorilla/>, and Twitter: https://twitter.com/WCS_Nigeria to promote the project. The project enjoys the full support of the Mbe communities. Voluntary donation of community land inside the Mbe Mountains conservation area to CAMM is evidence of the communities' interest and support for the project. A letter is being drafted to be signed by each community confirming the donation of land in the Mbe Mountains for conservation. This letter will be submitted to the Cross River State Government in support of CAMM's application for the issuance of a 'Certificate of Occupancy' to CAMM and official recognition for the Mbe Mountains conservation area.

The planned exit strategy for the project remains valid. Training in sustainable cocoa production and bush mango collection and marketing for local farmers and forest products collectors will equip the communities with skills to improve agricultural productivity and income generation, thereby improving their wellbeing. Importantly, relationships established between CAMM and CRIN during this project will facilitate continuity and access to farmer training support beyond this project's endpoint. It promotes cocoa and bush mango value chain development that will improve income generation. The legal gazettement of the Mbe Mountains as a community-managed wildlife sanctuary, together with formalization of bylaws and capacity building of CAMM during this project, will enhance protection of Cross River gorillas and the Mbe forest, securing long-term benefits from the project. WCS remains committed long-term to the Cross River gorilla landscape and the Mbe Mountains. WCS will maintain targeted support to CAMM to manage the Mbe Mountains for conservation and alleviation of poverty long after the end of the project to ensure its impact endures long term.

13. Darwin identity

Darwin Initiative funding for this project is acknowledged in monthly, quarterly, and annual reports shared with partners and stakeholders in the region and publicly on the WCS website and social media platforms. The Darwin Initiative logo has been used in workshop presentations to acknowledge and promote Darwin funding.

The UK Government's contribution to this project through the Darwin Initiative funding is recognised. Darwin Initiative funding for this project is acknowledged in monthly, quarterly, and annual reports shared with partners and stakeholders in the region and

publicly on the WCS website and social media platforms. The Darwin Initiative logo has been used in workshop presentations to acknowledge and promote Darwin funding.

This project forms part of a larger ongoing conservation programme aimed at protecting Cross River gorillas and tropical rainforest in the Mbe Mountains. Funding from the Darwin Initiative is complemented by funding from other sources.

There is considerable level of understanding of the Darwin Initiative Funding in Nigeria among government agencies, NGOs and local communities based on their involvement in past and current Darwin Initiative funded projects. For example, a Darwin Initiative funded bushmeat research project in Cross River State implemented from 2001 to 2002 involved government agencies such as the Nigeria National Park Service and the Cross River State Forestry Commission, as well as numerous local communities and local conservation NGOs. Another ongoing Darwin Initiative funded project focusing on illegal wildlife trade in Nigeria involves the Nigeria Customs Service, the Nigeria Environmental Standards Regulatory Agency and local NGOs.

WCS shares activities implemented in this project and promotes the project via the WCS website: <https://nigeria.wcs.org/>; and on Facebook: <https://www.facebook.com/CRgorilla/> and Twitter: https://twitter.com/WCS_Nigeria.

14. Project expenditure

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)			-2%	
Consultancy costs			100%	This variance is due to delay in implementation of planned training of cocoa farmers. Necessary agreement and arrangement with cocoa farmers could not be completed in time for this training to take place in year 1. Due to the delay no consultancy costs for the training were incurred in year 1.
Overhead Costs			29%	Overhead costs variance due to underspend on direct activities.
Travel and subsistence			1%	
Operating Costs			57%	This variance is due to delay in implementation of planned training of cocoa farmers. Necessary agreement and arrangement with cocoa farmers could

				not be completed in time for this training to take place in year 1. Also, planned meetings between CAMM and CRSMCCF and CRSMMLH to discuss the boundary of the Mbe Conservation area could not hold due to slow progress on the gazettelement process. These meetings are planned to take place after engagement with the Cross River State Government on gazettelement process has progressed to certain extent. The delay is due to government bureaucracy.
Capital items (see below)			0.00	
Monitoring & Evaluation (M&E)			54%	The variance is due to reduced cost spent on activity monitoring and evaluation
Others (see below)			6%	
TOTAL				

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	Actions required/planned for next period
<p>Impact</p> <p>This project is contributing to the conservation of Cross River gorillas and the Mbe forest. The Mountains are part of the rainforests of Cross River, a globally recognized biodiversity hotspot with high levels of species richness and endemism, with over 64 species of reptiles, 61 species of amphibians, 54 species of fish, 18 primates and about 1,570 plant species, many of which are globally threatened. The Mbe Mountains are home to number of threatened species such as the Cross River gorilla <i>Gorilla gorilla diehli</i> (CR), Slender-snouted crocodile <i>Mecistops cataphractus</i> (CR), Nigeria-Cameroon chimpanzee <i>Pan troglodytes ellioti</i> (EN), Drill monkey <i>Mandrillus leucophaeus</i> (EN), Red-eared monkey <i>Cercopithecus erythrotis</i> (VU), African forest elephant <i>Loxodonta africana</i> (VU), Grey-headed rockfowl <i>Picathartes oreas</i> (VU), African grey parrot <i>Psittacus erithacus</i> (VU), and White-bellied pangolin <i>Phataginus tricuspis</i> (VU).</p>		<p>This project is contributing to biodiversity conservation through improving effectiveness of law enforcement patrols of the Mbe Mountains. The project is also contributing to human development and wellbeing through providing benefits to surrounding communities from improved cocoa techniques and sustainable bush mango collection and marketing, as well as watershed protection.</p>	
<p>Outcome</p> <p>Critical habitat for Cross River gorillas in the Mbe Mountains is legally recognized and effectively co-managed, to benefit 12,000 people from improved cocoa production, bush mango harvesting and watershed protection.</p>	<ol style="list-style-type: none"> 1) No decrease in gorilla nest counts per km and a 10% increase in the area occupied by gorillas in the Mbe Mts by end of Y4 as compared to baseline; 2) By end of Y4, there has been no net loss of forest within the corridor and rate of forest loss in the buffer zone decreases by 30%; 3) By the end of Y4, household wellbeing indices increase by 10% due to improved cocoa production and bush mango collection compared to baseline established in Y1. 	<p>During this first year of the project, we successfully launched a process for the legal gazettement of the Mbe Mountains with a formal application made to the Cross River State Government through the Ministry of Climate Change and Forestry. A total of 60 anti-poaching patrols were completed by 14 ecoguards helping to protect critical Cross River gorilla habitat in the Mbe Mountains while enhancing watershed protection. Capacity building training provided this year is expected to increase income generation from bush mango collection. Plans are being finalized for training of cocoa farmers in year 2. The training will increase efficiency of cocoa production on existing farms while reducing</p>	<p>WCS monitors progress on cocoa training and application of acquired knowledge and skills by farmers, and evaluates impact.</p> <p>WCS monitors progress on bush mango training and application of acquired knowledge and skills by women's groups, and evaluates impact.</p> <p>WCS supports CAMM to follow up with the Cross River State Government to ensure legal endorsement of the Mbe Mountains as a community wildlife sanctuary.</p> <p>WCS and CAMM support survey and official documentation of the area to be gazetted by the Cross</p>

		deforestation through reduced need to clear new areas of forest each year.	<p>River State Ministry of Lands and Housing.</p> <p>WCS supports CAMM and Boki LGA to develop new bylaws for improved governance of Mbe Mountains that are ratified by MCCF.</p> <p>WCS produces and shares monthly, quarterly and annual patrol reports with CAMM, Boki LGA, MCCF, and other stakeholders.</p> <p>WCS monitors progress on law enforcement and evaluates impact.</p>
<p>Output 1.</p> <p>Local farmers have been trained to increase efficiency of existing cocoa farms.</p>	<p>1.1 By the end of Y2, 2,500 farmers (at least 30% women) trained in improved cocoa production.</p> <p>1.2 By the end of Y4, the average cocoa yield/farm increases 10% from baseline established in Y1.</p>	A baseline of households' wellbeing has been established in all project communities using a BNS survey with which to monitor impact of the training and support to cocoa farmers. Beneficiaries have been identified in each target community for training and plans are being finalized for the training which will begin in year 2. We anticipate that by the end of Year 2, a total of 2,500 farmers (men and women) would have been trained and equipped with the skills to increase the productivity of their cocoa farms.	
<p>Activity 1.1</p> <p>WCS and CAMM visit target communities and hold meetings to introduce project.</p>		This year WCS and CAMM organized consultation meetings with the nine Mbe communities to introduce the project.	
<p>Activity 1.2. WCS and CAMM identify and select cocoa farmers from each of the nine Mbe communities to participate in Farmer Field Schools and receive training in improved cocoa farming; identify contact person(s) in each community to assist with organising farmers; identify suitable demonstration farms.</p>		Individual farmers were identified in each community for cocoa training and support.	
<p>1.1 Activity 1.3. WCS, CRIN and CAMM agree a schedule with farmers</p>		WCS is collaborating with CRIN to source improved cocoa seedlings to supply to farmers for replacement planting of old farms.	
<p>Activity 1.4. WCS conducts a BNS survey in target communities to establish well-being baseline.</p>		A Basic Necessities Survey (BNS) has been conducted to establish a well-being baseline for household in the Mbe communities. A total of 602 households were surveyed. Data was collected using the software <i>Miradi</i> on handheld input devices. The baseline established will allow future evaluation of the impact of the project. A	

		baseline governance evaluation of CAMM has also been conducted using the Natural Resources Governance Tool (NRGT). The results guide support for capacity building training of CAMM to strengthen the group's authority and capacity to govern resources in the Mbe Mountains.
Activity 1.5. WCS and CRIN establish Farmer Field Schools		Plans for training on improved cocoa production are being finalized and the training will be conducted in year 2.
Activity 1.6. WCS, CAMM and farmers agree and sign conservation contracts		CAMM is working with farmers to develop conservation contracts to be signed by farmers.
Activity 1.7. CRIN conducts training on improved cocoa production through Farmer Field Schools, overseen by WCS.		Training on improved cocoa production will be conducted in year 2. WCS is collaborating with CRIN to source improved cocoa seedlings to supply to farmers for replacement planting of old farms.
Activity 1.8. WCS monitors progress on cocoa training and application of acquired knowledge and skills by farmers, and evaluates impact.		This activity is planned to start in year 2.
<p>Output 2.</p> <p>Local women's groups and young men trained in improved bush mango collection, processing, storage and marketing.</p>	<p>2.1 By the end of Y4, bush mango value chain is enhanced (from processing to sale) to increase profits for 500 women and young men.</p> <p>2.2 By the end of Y4, the average wellbeing indices per household benefitting from bush mango increases 10% from baseline established in Y1.</p> <p>2.3 By the end of Y4, Conservation contracts negotiated and signed with 500 women and young men.</p>	A total of 400 women have been trained in bush mango processing, storage, and marketing, as well as propagation, and are now equipped the necessary skills to increase productivity and income generation from bush mango.
Activity 2.1. WCS and CAMM visit target communities and hold meetings to introduce project; identify and select women's groups from each of the nine Mbe communities to participate in training on improved bush mango collection, processing, storage and marketing; identify contact person(s) in each community to assist with organising women's groups for training.		<p>WCS and CAMM organized consultation meetings with the nine Mbe communities to introduce the project.</p> <p>Women's groups were identified in each community for bush mango training and support.</p>
Activity 2.2. WCS conducts a BNS survey in target communities to establish well-being baseline.		A Basic Necessities Survey has been conducted. See 1.4 above.
Activity 2.3. WCS provides training in improved bush mango collection, processing, storage and marketing; WCS and CAMM support women's groups to identify accessible storage facilities and set up micro-enterprises.		Following the baseline surveys conducted this year, a total of 400 women were trained in bush mango processing, storage, and marketing, as well as propagation. The women will also be supported to raise bush mango nurseries for planting on their farms and degraded forest areas around their communities.

Activity 2.4. WCS monitors progress on bush mango training and application of acquired knowledge and skills by women's groups, and evaluates impact.		This activity is planned to start in year 2.
Output 3. Protection of the Mbe Mountains is enhanced and community land tenure secured through legal recognition of 127km ² as a "Community Managed Wildlife Sanctuary".	3.1 By the end of Y4, Mbe Mountains gazetted as a community wildlife sanctuary.	Good progress has been made towards realizing this output and it is likely that the output will be achieved by the end of the project. The project supported CAMM CAMM make formal application to the Cross River State Government for the official gazettement of the Mbe Mountains as a community wildlife sanctuary. The project is supporting the development of relevant supporting documents to strengthen the application and facilitate the issuance of a 'Certificate of Occupancy' for the Mbe Mountains conservation which will secure community land tenure and enhance the forest governance and biodiversity conservation in the Mbe Mountains.
Activity 3.1. WCS supports CAMM to launch the process for the official gazettement of the Mbe Mountains as a community wildlife sanctuary with the Cross River State Government; hold meetings with the MCCF and other relevant government agencies involved in the gazettement process to discuss progress.		As a first step in the gazettement process, the project assisted CAMM to submit a formal application to the Cross River State Government, through the Ministry of Climate Change & Forestry, for the official gazettement of the Mbe Mountains as a community wildlife sanctuary.
Activity 3.2. WCS supports CAMM to follow up with the Cross River State Government to ensure legal endorsement of the Mbe Mountains as a community wildlife sanctuary.		The project supported a number of the General Assembly of CAMM as well as meetings between CAMM and the Cross River State Ministry of Climate Change and Forestry to discuss plans to move the gazettement process forward. The project is supporting CAMM's legal adviser to coordinate the development of relevant documents to support and strengthen the application for legal gazettement including a letter to be signed by each of the nine Mbe communities donating their land inside the Mbe Mountains conservation area to CAMM. Such documents will strengthen CAMM's application and facilitate the issuance of a 'Certificate of Occupancy' for the Mbe Mountains conservation area by the Cross River State Government.
Activity 3.3. WCS and CAMM support survey and official documentation of the area to be gazetted by the Cross River State Ministry of Lands and Housing.		This activity will be implemented in later years of the project.
Output 4. The effectiveness of law enforcement interventions of WCS and local communities is improved for Mbe Mountains ecosystem.	4.1 Regular patrols in the Mbe Mountains by WCS and CAMM reduces signs of poaching by 10% each year compared to Y1 baseline. 4.2 New bylaws for improved governance of Mbe Mountains ratified by Boki LGA and MCCF. 4.3 Governance scores of the Mbe Mountains in Y4 increases by 20% over Y1 baselines.	The project is making progress toward this output. During this first year, SMART training was provided for the Mbe ecoguards and a total of 60 SMART-based patrols were completed resulting in a total of 32 people apprehended and sanctioned by CAMM. A total of 806 active wire snares and 9 hunting camps were destroyed. The project also supported the development and formalization of bylaws to strengthen the protection of the Mbe Mountains. The use of SMART is improving the effectiveness of law enforcement patrols and will enhance enforcement of the bylaws. We will continue to implement SMART in the Mbe Mountains and we are confident that the formalization of the bylaws will be achieved before the end of this project.

<p>Activity 4.1. WCS trains CAMM eco-guards in SMART and implements monthly SMART-based anti-poaching patrols jointly with CAMM.</p>	<p>During the first year of the project, WCS trained 14 CAMM ecoguards and the Mbe Project Manager in the use of SMART for law enforcement and gorilla monitoring. A 5-day training workshop was organized in Calabar in November 2017. The training was conducted by Dr. Richard Bergl of North Carolina Zoo and covered the use of SMART for patrol planning, data analysis, and reporting. Refresher training was provided for the Mbe ecoguards in the field each month alongside patrols. During the period, WCS supported CAMM ecoguards to complete a total of 60 SMART-based patrols in the Mbe Mountains over 2,336 man-days, covering a total distance of 2,466 km. A total of 32 people were apprehended for illegal activities (11 persons for hunting, 12 for NTFP collection, and 4 for farming) and were reported to CAMM for sanctions. A system of fines imposed and enforced by CAMM is used to deter illegal activities in the Mbe Mountains. In addition, 806 active wire snares (and 297 unset snare wires) and 9 hunting camps were destroyed (Table 1). WCS will continue to support CAMM ecoguards to carry out law enforcement patrols in the Mbe Mountains to reduce levels of hunting and other illegal activities.</p>
<p>Activity 4.2. WCS supports CAMM and Boki LGA to develop new bylaws for improved governance of Mbe Mountains that are ratified by MCCF.</p>	<p>The project also supported the development of bylaws to strengthen the protection of the Mbe Mountains. During this reporting period, the project supported several meetings of the General Assembly of CAMM to draft bylaws which were presented to the Boki Local Government Legislative House for consideration, ratification, and formalization. The bylaws are now undergoing final review before signing by the Executive Chairman of Boki LGA.</p>
<p>Activity 4.3. WCS produces and shares monthly, quarterly and annual patrol reports with CAMM, Boki LGA, MCCF, and other stakeholders.</p>	<p>The patrol data was presented as maps and tables (patrol statistics, patrol coverage, encounter rate and distribution of human activities) in monthly, quarterly and annual reports which are shared with CAMM and other stakeholders.</p>
<p>Activity 4.4. WCS monitors progress on law enforcement and evaluates impact.</p>	<p>Using SMART, WCS monitored attributes such as distance walked and the number of patrol days completed, as well as human threats such as the frequency of wire snares, hunting camps, and empty shotgun shells discarded by hunters. Information from previous patrols was used to plan subsequent patrols.</p>

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: Nigeria's Mbe Mountains ecosystems are effectively conserved, providing critical, connected habitat for the recovery of critically endangered Cross River Gorillas and sustainable livelihoods for local communities.</p> <p>(Max 30 words)</p>			
<p>Outcome: Critical habitat for Cross River gorillas in Nigeria's Mbe Mountains is legally recognized and effectively co-managed, benefitting 12,000 people from improved cocoa production, bush mango harvesting and watershed protection.</p> <p>(Max 30 words)</p>	<p>0.1 By end of Y4, there has been no decrease in gorilla nest counts per km (baseline = 0.17 nest sites per km during the period 2009-2014) and the area occupied by gorillas in the Mbe Mts increases by 10% compared to baseline established in Y1.</p> <p>0.2 By end of Y4, there has been no net loss of forest within the corridor and rate of forest loss in the buffer zone decreases by 30%.</p> <p>0.3 By the end of Y4, household wellbeing indices increase by 10% due to improved cocoa production and bush mango collection compared to baseline established in Y1.</p>	<p>0.1 Eco-guard patrol SMART reports and mapping.</p> <p>0.2 Analysis of Landsat 8 images.</p> <p>0.3 Basic Necessities Surveys (BNS) of the 9 communities surrounding Mbe Mountains.</p>	<p>Benefits provided by improved cocoa techniques and sustainable bush mango collection, combined with effective law enforcement are sufficient to influence local attitudes and behaviours towards CRG and their habitat.</p> <p>Communities and Cross River State Government are willing to embrace sustainable management of their forests for conservation purposes and there are no competing commercial interests such as logging or oil palm development.</p>
<p>Outputs:</p> <p>1. Local farmers have been trained to increase efficiency of existing cocoa farms.</p>	<p>1.1 By the end of Y2, 2,500 farmers (at least 30% women) trained in improved cocoa production.</p> <p>1.2 By the end of Y4, the average cocoa yield/farm increases 10% from baseline established in Y1.</p>	<p>1.1 Training reports, training course attendance certificates.</p> <p>1.2 Socio-economic survey</p>	<p>Farmers participate in training actively and fully to the end.</p> <p>Weather conditions remain favourable for cocoa.</p>

			<p>Market price for cocoa remains favourable keeping buyers interested.</p> <p>Conservation contracts are socially accepted and provide sufficient incentive to protect the forest.</p>
<p>2. Local women's groups and young men trained in improved bush mango collection, processing, storage and marketing.</p>	<p>2.1 By the end of Y4, bush mango value chain is enhanced (from processing to sale) to increase profits for 500 women and young men.</p> <p>2.2 By the end of Y4, the average wellbeing indices per household benefitting from bush mango increases 10% from baseline established in Y1.</p> <p>2.3 By the end of Y4, Conservation contracts negotiated and signed with 500 women and young men.</p>	<p>2.1 Training reports, training course attendance certificates.</p> <p>2.2 Socio-economic survey</p> <p>2.3 WCS and CAMM records</p>	<p>Bush mango value chain remains profitable for collectors and incentivizes forest protection.</p> <p>Conservation contracts are socially accepted by the women and young men and provide sufficient incentive to protect the forest.</p>
<p>3. Protection of the Mbe Mountains is enhanced and community land tenure secured through legal recognition of 127km² as a "Community Managed Wildlife Sanctuary".</p>	<p>3.1 By the end of Y4, Mbe Mountains gazetted as a community wildlife sanctuary.</p>	<p>3.1 Government gazette notice</p>	<p>Government of Cross River State willing to recognise customary rights and local land tenure.</p>
<p>4. The effectiveness of law enforcement interventions of WCS</p>	<p>4.1 Regular patrols in the Mbe Mountains by WCS and CAMM</p>	<p>4.1 Monthly SMART reports.</p>	<p>Improved law enforcement supported by local communities and</p>

<p>and local communities is improved for Mbe Mountains ecosystem.</p>	<p>reduces signs of poaching by 10% each year compared to Y1 baseline.</p> <p>4.2 New bylaws for improved governance of Mbe Mountains ratified by Boki LGA and MCCF.</p> <p>4.3 Governance scores of the Mbe Mountains in Y4 increases by 20% over Y1 baselines.</p>	<p>4.2 Boki Council records.</p> <p>4.3 Natural Resource Governance Tool (NRGT) scores.</p>	<p>maintains a net positive impact on local livelihoods.</p> <p>Community-created sanctions act as sufficient deterrent and reduce levels of illegal activity</p>
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Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

- 1.2 WCS and CAMM visit target communities and hold meetings to introduce project
- 1.3 WCS and CAMM identify and select cocoa farmers from each of the nine Mbe communities to participate in Farmer Field Schools and receive training in improved cocoa farming; identify contact person(s) in each community to assist with organising farmers; identify suitable demonstration farms
- 1.4 WCS, CRIN and CAMM agree a schedule with farmers
- 1.4 WCS conducts a BNS survey in target communities to establish well-being baseline.
- 1.5 WCS and CRIN establish Farmer Field Schools
- 1.6 WCS, CAMM and farmers agree and sign conservation contracts
- 1.7 CRIN conducts training on improved cocoa production through Farmer Field Schools, overseen by WCS.
- 1.8 WCS monitors progress on cocoa training and application of acquired knowledge and skills by farmers, and evaluates impact.

- 2.1 WCS and CAMM visit target communities and hold meetings to introduce project; identify and select women's groups from each of the nine Mbe communities to participate in training on improved bush mango collection, processing, storage and marketing; identify contact person(s) in each community to assist with organising women's groups for training.
- 2.2 WCS conducts a BNS survey in target communities to establish well-being baseline.
- 2.3 WCS provides training in improved bush mango collection, processing, storage and marketing; WCS and CAMM support women's groups to identify accessible storage facilities and set up micro-enterprises.
- 2.4 WCS monitors progress on bush mango training and application of acquired knowledge and skills by women's groups, and evaluates impact.

- 3.1 WCS supports CAMM to launch the process for the official gazettement of the Mbe Mountains as a community wildlife sanctuary with the Cross River State Government; hold meetings with the MCCF and other relevant government agencies involved in the gazettement process to discuss progress.
- 3.2 WCS supports CAMM to follow up with the Cross River State Government to ensure legal endorsement of the Mbe Mountains as a community wildlife sanctuary.
- 3.3 WCS and CAMM support survey and official documentation of the area to be gazetted by the Cross River State Ministry of Lands and Housing.

- 4.1** WCS trains CAMM eco-guards in SMART and implements monthly SMART-based anti-poaching patrols jointly with CAMM.
- 4.2** WCS supports CAMM and Boki LGA to develop new bylaws for improved governance of Mbe Mountains that are ratified by MCCF.
- 4.3** WCS produces and shares monthly, quarterly and annual patrol reports with CAMM, Boki LGA, MCCF, and other stakeholders.
- 4.4.** WCS monitors progress on law enforcement and evaluates impact.

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
6A	Training in bush mango propagation, processing, storage and marketing	Female	Nigerian	400	100	0	0	500
6B	Training in bush mango propagation, processing, storage and marketing	NA	NA	1	1	0	0	2
6A	Training of Mbe cocoa farmers to increase productivity of existing farms	Male and female	Nigerian	0	2500	0	0	2500
6B	Training of Mbe cocoa farmers to increase productivity of existing farms	NA	NA	0	8	8	0	16
12A	SMART law enforcement and wildlife monitoring database	NA	NA	1	1	1	1	1
12A	database of household basic necessities of project target communities	NA	NA	1	1	1	1	1

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
NA	NA	NA	NA	NA	NA	NA

Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Annex 4 - 2016 Land Cover Analysis

Annex 5 - 2017 Land Cover Analysis

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.	