



Darwin Initiative: Final Report

To be completed with reference to the “Writing a Darwin/IWT Report” Information Note:

[\(https://www.darwininitiative.org.uk/resources-for-projects/reporting-forms-change-request-forms-and-terms-and-conditions/\)](https://www.darwininitiative.org.uk/resources-for-projects/reporting-forms-change-request-forms-and-terms-and-conditions/).

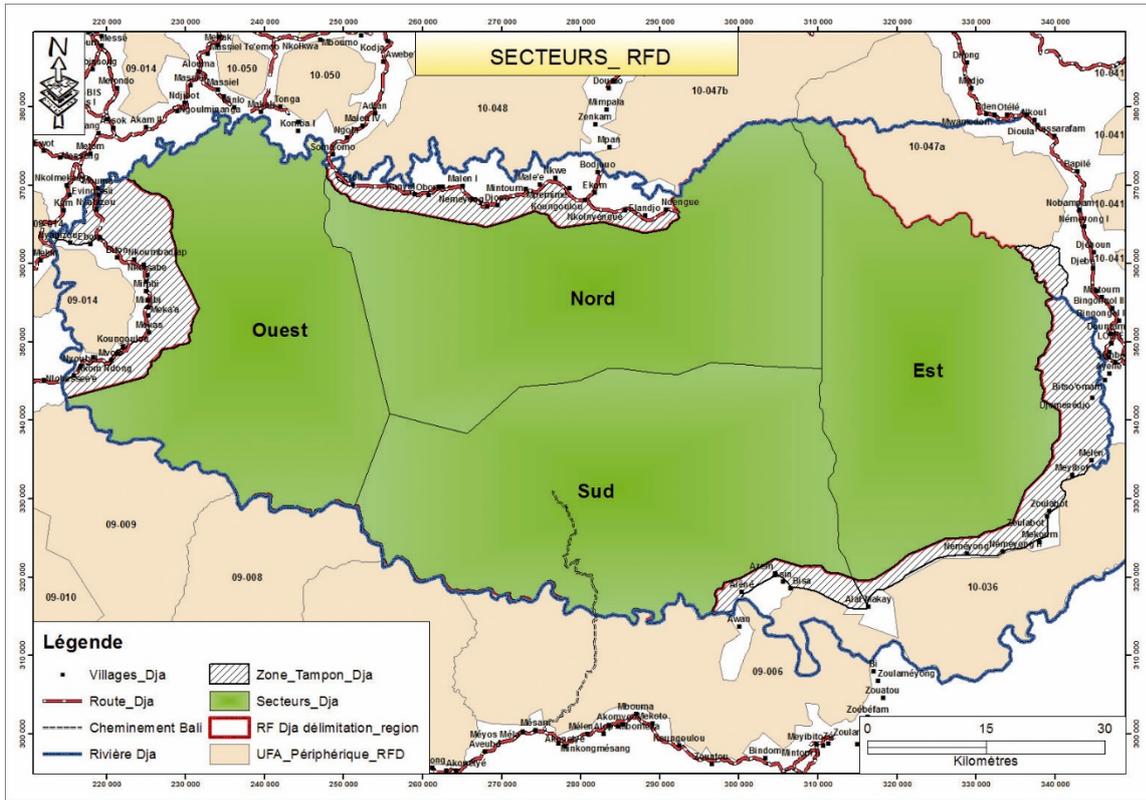
It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Darwin Project Information

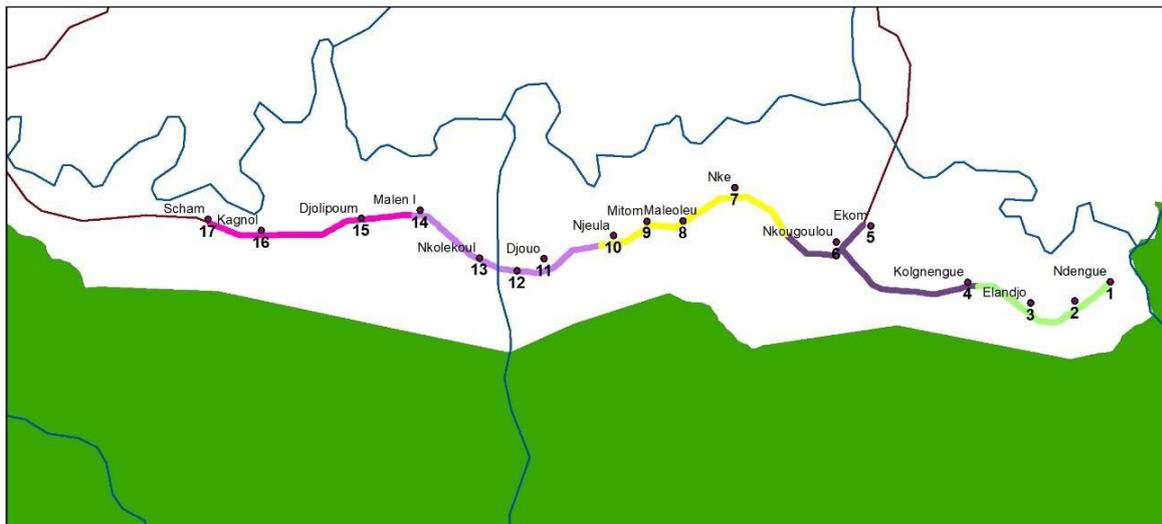
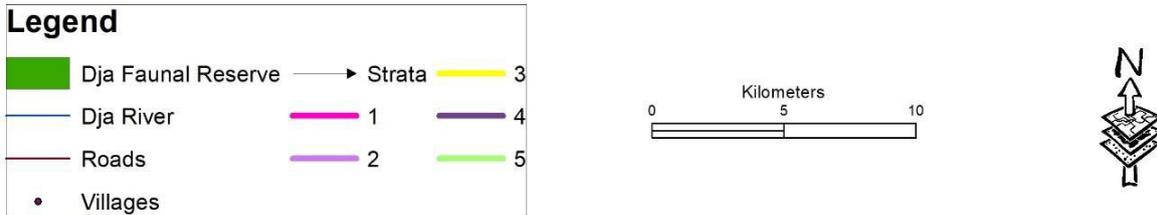
Project reference	24-005
Project title	Enabling rural poor to help protect biodiversity of Dja, Cameroon
Country(ies)	Cameroon
Lead organisation	Antwerp Zoo Centre for Research & Conservation (CRC), Royal Zoological Society of Antwerp (RZSA)
Partner institution(s)	African Wildlife Foundation (AWF), Living Earth Limited (LEL), Association de la Protection de Grands Singes (APGS), Tropical Forest & Rural Development (TF-RD), Fondation Camerounaise de la Terre Vivante (FCTV)
Darwin grant value	273,678 GBP
Start/end dates of project	1/4/2017 – 31/3/2021
Project leader’s name	Dr Nikki Tagg
Project website/blog/social media	http://www.landscapeconservation.org.uk/darwin-project
Report author(s) and date	Neil Maddison, Adi Nwafi, Donald Mbohli, Mama Mouamfon, Nikki Tagg 9 th July 2021

1 Project Summary

The Project is located in the northern buffer zone of the Dja Faunal Reserve (DFR, or Reserve du Fauna, Dja, RFD), a protected area that straddles East, Central and South Regions of the Republic of Cameroon.



NORTHERN PERIPHERY OF DJA FAUNAL RESERVE



The DFR is situated wholly within the Congo River Basin, with the River Dja acting as the border on three sides of the Reserve. The river initially flows due west, then heads south before veering due east; this forms a sideways ‘U’ shape, with the communities living ‘inside’ the U being described as living ‘within the buckle’ i.e. a reference to the shape resembling a belt buckle.

The northern periphery ('inside the buckle') of the DFR is home to 22 Bantu/Baka communities, living in 17 villages. These communities are amongst the region's poorest and first to be negatively-impacted by the decline in health of the DFR. Hunting by men and bushmeat trading by women have played important livelihood and cultural roles, providing income-generating opportunities and vital animal protein. Overhunting and illegal exploitation promotes unsustainable offtake, which threatened long-term food security and ecosystem viability. As hunters are pushed further into Reserve to find wild meat, and outsiders hunt/purchase in/from the area, biodiversity is lost and DFR values and UNESCO world-heritage-site status have been severely threatened. People have lived there in poverty, without the skills required to change from subsistence→trade and no affordable alternative source of animal protein was available to unsustainable hunting, increasing the pressure on local people.

All animal wildlife existing inside the DFR boundaries that was deemed attractive to eat (or sell as bushmeat) has been (illegally) hunted. These animal species included several that have been classified as being globally threatened and appear as CR, EN or VU listed species on the IUCN redlist, including forest elephant, western lowland gorilla, central African chimpanzee, white-bellied tree pangolin, giant pangolin, dwarf crocodile.

One of the main issues to address was the lack of access by people to sustainable forms of animal protein from traditional mechanisms such as hunting and trading in wild-caught meat. In addition, and a key driver underlying food security, the villagers in the northern buffer zone have had little access to sustainable revenue-generating activities and trade routes, hence increasing the pressure to hunt both illegally and unsustainably. The inability to access products to trade systemically biased women's activities in the region, as women have – historically – been the main traders in the communities.

The partners have had significantly long and in-depth engagement with the people living in buffer zones and on the periphery of the DFR and additionally with the management authorities responsible for preserving the biodiversity of the DFR. The management authorities and the local people recognise that there is a conflict between the needs of wildlife authorities and the needs of people if they are dependent on wild-caught meat as their main source of protein (and as a revenue source, selling 'bushmeat'). These challenges were identified through several interventions over the past several decades, including Darwin projects 17-019, 20-005, which led directly to the shape of this project – based in in-depth engagement with the target beneficiaries.

The project had two main aims: 1. generate revenue through the growing and selling of cocoa and 2. create a sustainable source of animal protein as an alternative to the illegal hunting of wildlife within the DFR.

2 Project Partnerships

CRC assumes overall responsibility for project leadership and management, reporting and administration, and data analysis. CRC has been supporting, financially and technically, the Cameroonian association

APGS since 2001, a collaboration which has focussed on conservation research and small-scale development investments in the northern periphery of the DFR. Thus, both an expert team of conservation scientists at CRC, and an experienced and skilled team of technical and logistic staff in Cameroon, enables the provision of excellent technical leadership, mentoring and development support needed for local partners (APGS, FCTV and TF-RD) to excel in the design and delivery of community-focused outputs. Based on this structure, the project has continued to build on the good progress made previously in Years 1, 2 and 3, and has – broadly – achieved the desired Outcome.

Externally, CRC, AWF and LEF held quarterly meetings in Antwerp to discuss all aspects of the project, including the remote management of in country partners, year planning and reviewing, etc, although these had to stop at the end of Year 3 due to travel restrictions due to the COVID-19 pandemic. Meetings were held virtually (the AWF representative became an independent consultant during the project, but still provided technical support). Each of these partners has a close collaboration with one of the in-country partners, respectively, therefore ensuring that all plans/decisions/discussions had in Antwerp are clearly communicated and translated to Cameroon and the project on the ground. Similarly, in country partners (APGS, TF-RD and FCTV) have held monthly meetings in Cameroon for all personnel involved in rolling out Darwin activities in the field. All meetings have been thoroughly minuted, and distributed to all partners, who are then invited to comment, respond, contribute to discussions, etc. These regular meetings have ensured smooth oversight of the whole project and have enabled the team to gather in timely reporting, data and insights along the way.

To some degree, all partners are involved in the decision-making processes, and all are also involved with some aspects of M&E relating to the outputs towards which they are focused. For example, although the overall M&E programme is being overseen by CRC and carried out on the ground by APGS, both the other in country partners (TF-RD and FCTV) are also conducting additional, targeting M&E regarding specific baseline information or measurement of indicators related to outputs 1 and 2, respectively.

One issue that was brought to our attention was that there was the potential for conflict of interest between some of the partners' activities, notably the establishment of a private sector organisation that could benefit preferentially from donor investment after public funding has finished. The involvement of the private sector to help ensure sustainability is welcomed, but it is recognised that the process of assigning benefit must be clear, transparent and implemented with donor agreement rather than being 'assumed' to be the case. During a mid-term review of the project by Darwin representatives, this issue was highlighted, recommendation given and was assessed by one of the project partners (Living Earth). The result is that other private sector businesses are aware of the potential for trade in the area, making trade more competitive and hence more sustainable. By the end of the project the situation had not been resolved, and now lies with the main donor in the region (EU in country office).

In addition, since the introduction of the project there has been an unforeseen consequence in that there is potential conflict between the target population in the 17 villages south of river Dja who have benefited

from this project and the neighbouring villages north of river Dja. The partners, through discussions with the villagers, identified these areas of conflicts which included unsustainable fishing in river Dja and hunting by villagers from villages north of the river who were not involved in the project; possible measures to address this conflict have included new applications to Darwin Initiative, Main Round, for expansion of the project to villages north of the Dja river; unfortunately this application was unsuccessful and the partners are looking for alternative funders.

This final report was compiled with information provided by all the partners, specifically RAZA/CRC and APGS reported on the monitoring and evaluation throughout the project, including all of the data relating to the indicators measuring progress; TF-RD reported on cocoa production and trade; FCTV reported on alternative protein; LEL led on compiling the report.

3 Project Achievements

3.1 Outputs

There were four Outputs detailed in the application i.e.

Output 1 - New livelihood paradigms established in 22 rural poor communities for the provision of sustainable non-wild meat protein sources for the short- to long-term;

This has been achieved. Prior to the project, the frequency of consumption of animal protein from illegal hunting – predominantly from inside the DFR – was higher compared to that obtained from fish, but this situation has now been amended, with a higher frequency of consumption of animal protein from wild-caught fish (Figure 1).

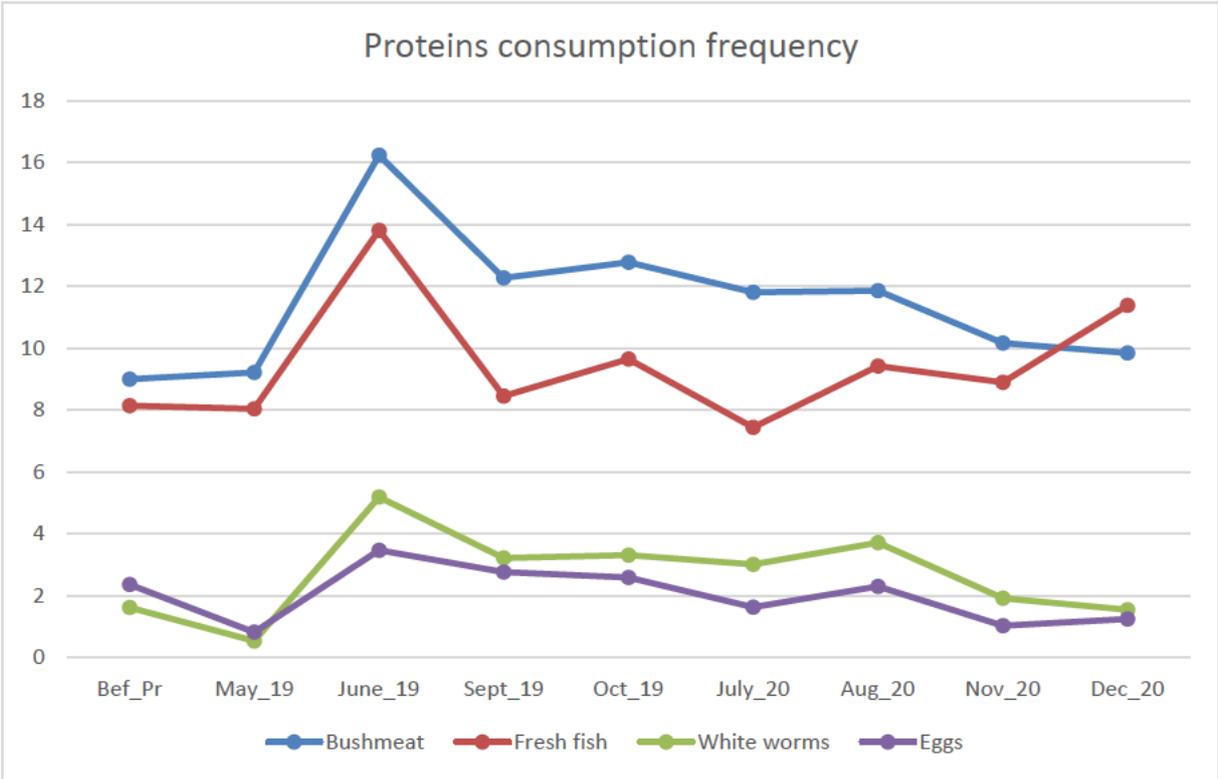


Figure1: Trends in consumption frequency of four major types of animal protein

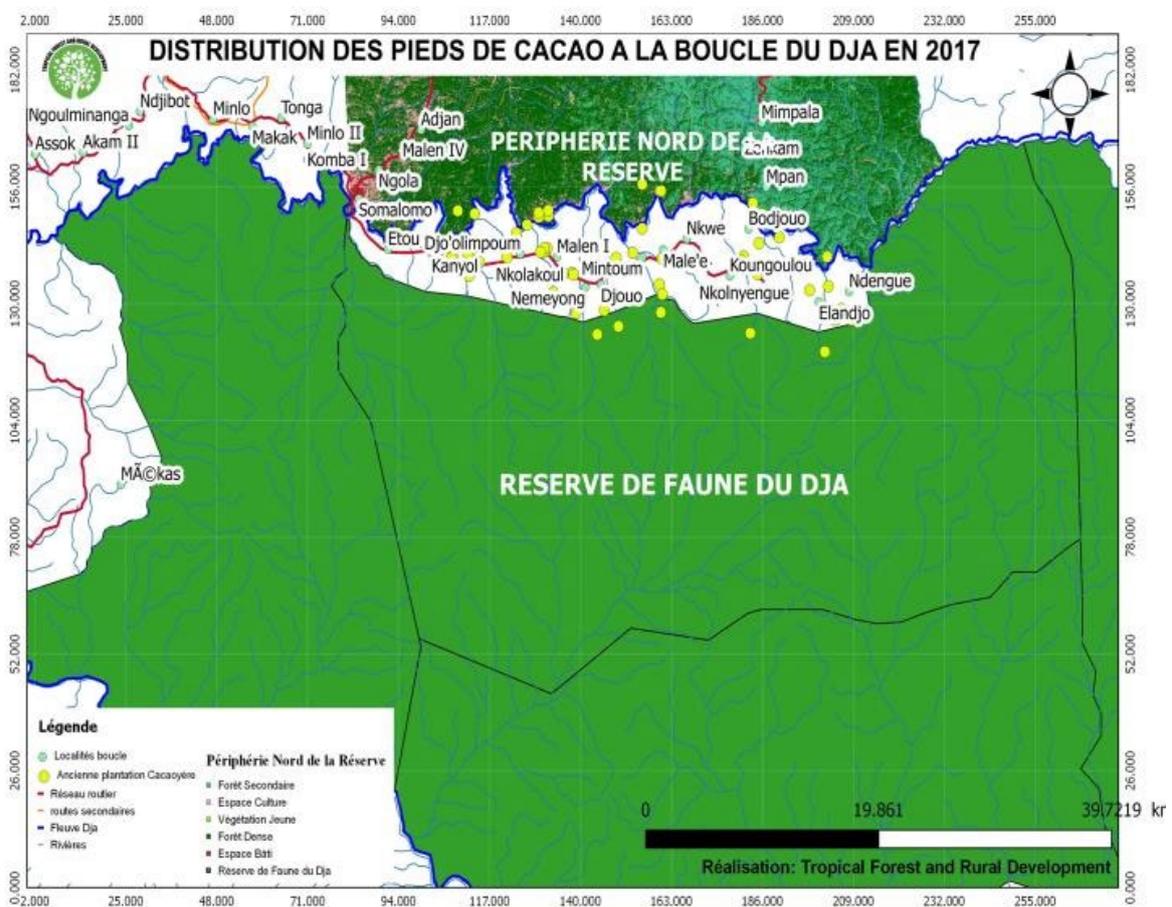
Evidence: Dropbox folder:\Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Alternative Protein\

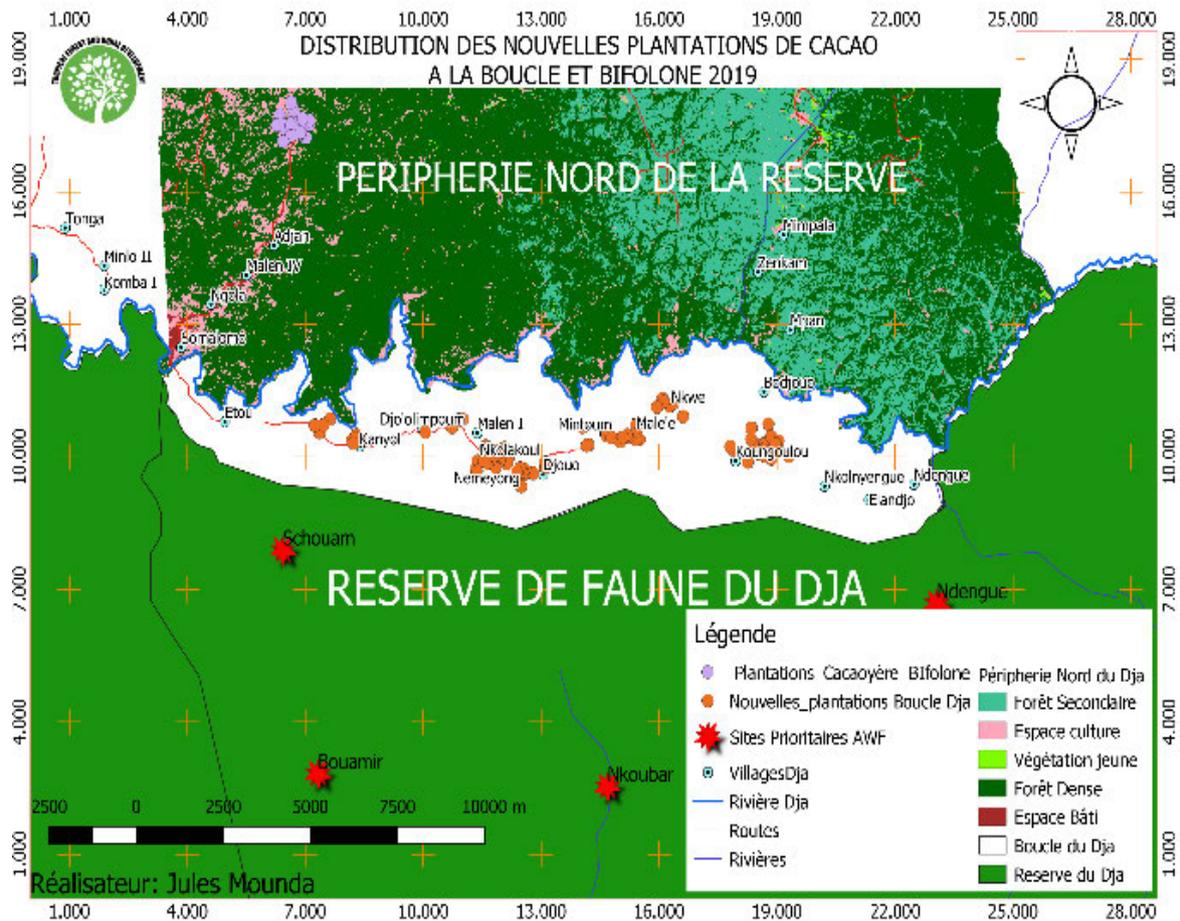
Output 2 - A participatory process for training and capacity building made available to 22 rural poor communities, to establish sustainable sources of non-hunting financial income;

This has been achieved. New cocoa plantations, and amelioration of previously run-down cocoa plantations has resulted in the following:

- New cocoa plantations: 13.5 hectares
- Rehabilitation of previously run-down cocoa plantations: 43 hectares

Evidence: Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Cocoa\Maps





2.1 Up to 1800 adults with families (40% women) attend 3-day workshops (10 workshops held annually across northern periphery in years 1 and 2) by year 3

This was achieved. Evidence in photos \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Cocoa

2.2 50% of trainees (>30% women) apply to participate in scheme and pay small registration fee by year 3; and an additional 25% by year 4

This was achieved. Evidence in photos C:\Users\Neil\Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Cocoa

2.3 75% of registered adults report launch of income-generating activity by end of year 4

This was achieved. Evidence in B2.4

\Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Cocoa

Output 3 - Official programmes for behavioural modification (REAs) established, accepted and respected by hunters and meat traders in 22 communities (covering an area of 2500km²)

This has been achieved through two strategies: the creation and registration of 'Groupe Initiative Commune' (GIC) for cocoa trading and sustainable fishing, and by individuals signing individual agreements ('Reciprocal Environmental Agreements' – REA) with the project for the provision of

support based on individual commitments. Copies of all GIC registrations and signed individual agreements are complementary to this final report (shared in the project Dropbox folder)

3.1 Model of REA officially submitted to national and local government bodies and specific REAs for each of 22 communities presented in year 1

This has been achieved. Copies were submitted to conservation Unit and SDO; and the local government representatives were present at all of the REA signing ceremonies, and learned the processes that had led to the agreements between the community members and the project.

3.2 Representatives of 22 communities (40% of number of households of 80% of number of communities represented at each stage) attend series of workshops (21 workshops in 7 locations over first 3 years) in which local authorities attend

This has been achieved. See photos as evidence in Dropbox folder.

3.3 Greater understanding of cultural barriers that need to be overcome to shift from hunting based to sustainably-managed resource communities

This was achieved. Regular monitoring (e.g. semi-structured surveys) and data analysis of socio-economic and biological indicators assessed progress against indicators, including measures of knowledge, attitude and practice surveys (KAP) enabled the team to assess understanding of the barriers to cultural change. Knowledge was also shared from other projects in the region, e.g., DI project 'Why eat wild meat?'. For example, the project staff came to understand that community approaches to take responsibility is a great barrier for the REA approach. So unanimously, they took option to develop individual REA for each member of the Organisation (GIC PECADJA-Ba). (see Dropbox folder).

3.4 Individuals achieve REA completion (signed, launched) by end of year 4 (up to 200 by end year 2, up to 250 by end year 3, up to 300 by end year 4

Has this partly been achieved. Two signing ceremonies were carried out in five different locations (hubs), and as a result 75 REAs for cocoa were signed and 21 REAs for fishing were signed, totalling 96 REAs. Although not achieving the target number of REAs, REAs were signed with all relevant individuals in all target villages. See signed REAs as evidence in Dropbox folder.

Evidence: Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 3 REA

Output 4 - Project learning influencing regional/national level policy formation leading to integration of identified best practice and activities into Dja Management Plan and national policy

This Output has two components: best practice has been integrated into the forthcoming version of the Dja Management Plan (expected mid-2022), with the project findings disseminated at the Dja Actors Forum Number 05. In addition, the project has fed into national policy discussions, predominantly in

the need to establish sustainable river fisheries. Discussions are ongoing and not expected to conclude in the short term, owing to the fact that buffer zone inhabitants are subject to restrictions on their activities, whilst those living outside of the buffer zone have access to 'buffer zone resources'.

4.1 Integration of REA model and project lessons learnt in Dja Management Plan, revised National Biodiversity Strategy and Action Plan

Expected December 2021 (updated Dja Management Plan);

Evidence Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 4
Dissemination\Dja Actors' Forum

The final report of the project (this document) will be the basis of feeding into the next incarnation of the NBSAP. The project findings have NOT, to date, managed to be integrated into the NBASP, simply because the process of defining an updated version of the NBASP has not started. Although there is no specific date for the process to begin, the project team anticipates that this will start within the next 12 months.

4.2 >10 media, popular science and peer-reviewed publications of data and results arising from project
The project did not quite meet its expectations of 10 publications, completing 8. That said, we have identified seven strong prospects for the submission of popular science and peer-reviewed articles, hence we are confident that this target will be reached beyond end-of-project:

Papers related to Project Outputs:

1. Trends in wildlife abundance and functional diversity in a landscape conservation zone in Cameroon
2. Assessing the impacts of reciprocal environmental agreements on bushmeat harvesting dynamics in the northern sector of Dja Biosphere Reserve
3. Contribution of reciprocal environmental agreements to household income in the northern periphery of Dja Biosphere Reserve
4. Do reciprocal environmental agreements for wildlife conservation improve household food security? A case study in the northern sector of Dja Biosphere Reserve
5. Linkage between reciprocal environmental agreements, perception of wildlife and livelihood paradigms in the northern sector of Dja Faunal Reserve
6. Assessing hunting pressure in the Dja Faunal Reserve (based on Master's project)
7. Bushmeat hunting around Dja Faunal Reserve (species hunted, species sold, income from bushmeat sales and proportion consumed locally)

Pieces already publicised in the Project Dropbox folder:

Evidence: [REDACTED]
[REDACTED]

4.3 >10 references to critical project findings in third party publications, media reports and policy papers. There was one article on the innovation of producing life jackets from waste material. There was one article on the importance of providing alternative forms of revenue to hunting. Although the final report will be made on the partners' website and it is anticipated that the findings will be utilised by researchers, policy makers and popular media, it is clear that the original target of 10 references was over-optimistic and the project failed to meet its target.

SUMMARY:

There was good success with meeting Outputs 1, 2, and 3. One of the key success factors for establishing new means of livelihood (development) was engagement of the target beneficiaries, and their subsequent take up of activities. The indicators for Outputs 1, 2 and 3 were related, in that the number of people attending training, workshops and as a consequence committing to shifts in behaviour as part of the project, was central to success. The project had a target of up to 1,800 people being positively benefitted, through family members registering under the GIC projects for alternative protein activities (Output 1) and cocoa production (Output 2), and subsequently signing REA to take part in activities. The target was calculated through estimating a 55% take up of the project in the total number of people inhabiting the northern buckle of the Dja Faunal Reserve. This has been achieved, considering the number of 'early movers' i.e. those who initially signed up for the project represents around 31% of the total number of inhabitants i.e. approximately 900 people (men – 12%), women (12%) and children (76%).

Evidence: \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 3 REA

Output 4 relates to the project's influence in determining local management planning i.e. the Dja Faunal Reserve Management Plan, and national policies. Output 4, *Project learning influencing regional/national level policy formation leading to integration of identified best practice and activities into Dja Management Plan and national policy* has not been fully achieved to date, but is expected to be met outside of the project timetable. The main reason for this failure is that we assumed that the NBSAP would be reviewed and amended during the lifetime of the project, allowing for findings to be input. For a variety of reasons within the Government of Cameroon's processes (including delays in numerous meetings due to impact of COVID on the holding of meetings). The decision to not apply for a project extension was due to the fact that there was (and still is not) an actual date for review of the NBSAP, although it is highly likely that this will be completed within twelve months (by July 2022)

The project had significant success with determining local management planning, for example there is now a current initiative, driven by the local office of the Conservation Service (MINFOF) to agree how

benefit sharing of a shared resource (the fish in the Dja River) can be sustainably managed. It is anticipated that the protocols established for benefit sharing in the river will be incorporated into national policy on managing shared natural resources, most notably in situations in Cameroon where local communities have different restrictions according to where they live i.e. in several of the Protected Areas and Wildlife Reserves in Cameroon, rivers act as a boundary for core and buffer zone areas; examples include Dja Faunal Reserve, Mpem and Djim National Park, Dpem and Djerem National Park, Benoue National Park, Faro National Park, Waza National Park. We believe that Output 4 is therefore on its way to being fulfilled in terms of influencing national policies.

Without question, the biggest challenge to the project was the recognition that the proximity of the Dja River influencing the activities that would be implemented by the target beneficiaries. The project’s initial assumption – based on feedback from households living in the same landscape, but more remote from the river, was that fish farming (for protein and trade) was the preferred choice for alternatives to wild-caught meat. The project process however, allowed for changes to be made to this ‘prescribed strategy’ if it emerged that there were more appropriate, locally preferred alternatives that would still meet the desired Outputs and contribute to the Outcome. Through Participatory, Learning and Action methodology, including the use of preference identification tools such as pair-wise comparisons, there was a significant shift in strategy, in that the project developed activities designed to increase the number of wild-caught fish taken from the river, and preservation of the catch for both personal consumption and trade. The indicators however were broadly similar, in that *amount* of fish accessed was central to the success of the project. **During the lifetime of the project, the quantity of animal protein originating from fish increased over the amount of protein derived from wild-caught meat.**

Evidence: [REDACTED]
[REDACTED]

3.2 Outcome

It is considered that the project Outcome has been achieved, as indicated by the Evidence provided in the Dropbox folder Monitoring and Evaluation (please see above and below for references to specific evidence relating to each of the Outputs).

There is increased food security, as evidenced by the ability of fisher-people to obtain legal animal protein other than wild-caught meat; there has been a significant uplift in obtaining revenue, generated by cocoa production and trade, and biodiversity evaluation illustrates that there has been a decrease in hunting

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

3.3 Monitoring of assumptions

Our M&E held 9 main assumptions, as detailed in the logframe, which would need to hold true throughout the project period in order for us to deliver our intended outputs and achieved our intended outcomes. These assumptions were monitored throughout the course of the project, and how well each of the assumptions held true was discussed in each of our annual reports. As summarised below, each of our assumptions held throughout the course of the project, so we were not forced to manage any failed assumptions.

Outcome:

Assumption 1: External pressure continues to create sustainable use concern for local hunters and wildlife traders.

This assumption held throughout the project and continues to be applicable. External pressure comes from the conservation service (MINFOF) responsible for maintaining the biodiversity of the DFR and it will be enforced through support via the ECOFAC 6 project (law enforcement component).

Assumption 2: Improved enforcement of wildlife laws and sanctions in Dja landscape address hunters and wildlife traders who refuse to participate in the scheme.

This assumption held throughout the project. Local conservation actors – ZSL, AWF, PGS, FCTV and TF-RD, continued to sensitise villagers on wildlife laws, notably the illegality of hunting in the DFR, and limits of the quantity of meat that can be taken for local consumption. The Conservation Service continued to ensure sanctions. During the project we identified the risk that this would create conflict between the buffer zone village residents and those they view as ‘putting wildlife before people’. For this reason, the Darwin project team members made it clear that we work independently from the staff of the Conservation Service in day to day activities, while nevertheless keeping the local head of post fully informed of our activities, through one of the partners (AWF) maintaining an office in Somalomo (adjacent to the head of operations for the Conservation Service).

Assumption 3: National government remains amenable to policy dialogue and reform.

This assumption held throughout the project. The national government remains open to policy dialogue. This was illustrated by the interest shown in the ‘signing of REA ceremony’, which was attended by local government officials and is regarded as a major achievement of the project in Year 2.

Output 1:

Assumption 4; 75% of population of 22 communities are present in locality/healthy/available and are thus able to attend the workshops.

This assumption held throughout the project (for both Outputs 1 and 2). 22 communities in the northern buffer zone (17 main villages and 5 satellite villages) were involved in the project. As anticipated, there was some reluctance by a small (less than 25%) number of villagers, but as benefits have accrued and in the later years of the project there was a demand from those who did not originally join the project to become involved. The terms and conditions for these 'late joiners' were subsequently finalised (there was some reluctance from the 'early movers' to extend the scheme to the same level of benefit) and agreed.

Assumption 5: Registered members of the scheme do not abandon the activity within the first year.

This assumption held throughout the project. In fact, overall the reverse was the case, as more people sought to be included as the project advanced.

[REDACTED]

Output 2:

Assumption 6: That the registration fee remains low enough to be accessible to rural poor, but high enough to ensure dedication to the scheme and to prevent abandonment of the activity within the first year.

This assumption held throughout the project. There is no registration fee, so all rural poor living in the buffer zone. REAs ensure commitment to the scheme.

Output 3:

Assumption 7; That the government remains open to submission and discussion of such schemes.

This assumption held throughout the project. The government has been open to suggestions and modifications where appropriate. Local government officials were always informed each time team members go to the field and have never challenged activities, although the request for 'motivation' i.e. an ex-gratia payment is often the case (not available from the project and hence not made).

Assumption 8; Full participation of community members enlisted.

This assumption held throughout the project. As noted above, the buffer zone residents became fully engaged, stating that they had been waiting for support project for a long period of time.

[REDACTED]

Output 4:

Assumption 9; That the government accepts and approves of the REA scheme.

This assumption held throughout the project. The local project team have presented REA scheme to the government (mostly local government authorities in Somalomo) for 'approval'; it was originally

assumed that a legal process would be needed to ratify REA, but the project team are assured that this is not necessary, and that agreements at the individual and GIC level are adequate.

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

A biodiversity benefit for Dja landscape, Cameroon, through addressing the main pressures on the ecosystem and species by an improvement in livelihoods, welfare and food security for forest-dependent rural poor.

The data illustrates that by engaging with, and giving support to communities that historically have been dependent on wild-caught meat as their main source of animal protein and trade, shifts can be introduced such that there is a reduction in hunting and increased protection of the biodiversity of the Dja Faunal Reserve.

The data shows that poverty indicators i.e. access to legal, sustainable forms of income, improved food security and local capacity to trade have improved as a direct consequence of the project. In addition, the project has been a contributor to improved infrastructure in the area, enabling value chains in cocoa and fish to be increased (measured by quantity of both cocoa and fish traded).

Evidence: Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 1 Alternative Protein\Income generation and trend; \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 2 Cocoa\Income generating

4 Contribution to Darwin Initiative Programme Objectives

4.1 Contribution to Global Goals for Sustainable Development (SDGs)

The project contributed to Global Sustainable Development Goals (SDG) 1, 2, 3, 5, 11 & 15.

SDG 1: No Poverty: as well as providing sustainable revenue generation through increasing trade in cocoa and fish products, the area in the northern buffer zone now has greater access to markets and services

SDG 2 Zero Hunger: the issue of unsustainable (and illegal) take of wildlife for animal protein was one of the drivers for action. Through establishing sustainable and accessible fishing for the beneficiaries, around 1800 people have increased food security

SDG 3 Good Health and Well Being: Increased household GDP enables families to access health services when required. In addition, qualitative data confirms that the beneficiaries 'feel better about themselves' and 'no-longer ignored' due to project interventions

SDG 5 Gender Equality: there has been a shift from wild meat hunting to trading for livelihood provision, with a consequential increase importance on the role of women in the villages (previous evidence has shown that women are more likely to trade food products than men in the region, as evidenced by the gender of individuals signing REA:

[REDACTED]

[REDACTED]

[REDACTED]

SDG 11 Sustainable Cities and Communities: The main project activities were focused on establishing sustainable access to animal protein (achieved through sustainable fishing) and a shift from subsistence farming to sustainable trading (cocoa production)

SDG 15: Life on Land: through the intervention, the wildlife of the DFR was given increased protection. Specifically, the project resulted in a reduction in human pressure on wildlife in the surrounding forest, which equates to a reduction of pressure on threatened species (and other species inside the protected area) and will subsequently result in an increase in wildlife species population in future, if conditions remain the same as at EOP.

Evidence: \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Biodiversity

4.2 Project support to the Conventions or Treaties (e.g. CBD, Nagoya Protocol, ITPGRFA, CITES, Ramsar, CMS, UNFCCC)

The project contributes to the first two objectives of the Convention on Biological Diversity, particularly the conservation of biological diversity and the sustainable use of its components. The project contributes to the implementation of the following articles of the CBD: 8c, 8d, 8i, 8j, 10a, 10c, 17.1, 17.2. It also contributed to the implementation of Cameroon's National Biodiversity Strategy and Action Plan revised in 2012 which highlights the threat of illegal exploitation of wildlife for food and commercial purposes and calls for changes in behaviour (Goal A) from local to national level and the generation of wealth from biodiversity to incentivise conservation and sustainable use (Goal C).

The project enables Cameroon to deliver on Aichi Goals B by reducing the direct pressure on protected species in Dja from hunting, C improving the status of biodiversity by safeguarding the ecosystems and species of the Dja landscape, and E by enhancing implementation through participation, planning, knowledge management and capacity building among the reserve managers and communities and specifically Aichi Targets 12 (longer-term goal: extinction of known threatened species prevented and conservation status improved) and 18 (indigenous knowledge and innovative practices of local communities are respected and integrated into implementation of the convention).

Within Cameroon, the project contributed the following programmes of work:

- National Millennium Village Framework: The framework builds on the strategic approaches expounded within the Action Plan of Strategy for Growth and Employment (SGE/PRSP II)
- Country programme (CP) Outputs: 3. Community based organisation financial self-capacity is empowered 4. Capacity of local community strengthened in terms of poverty reduction

4.3 Project support to poverty alleviation

The project was shaped specifically to improve human development and well being, as these were recognised to being to major factors for protection of the DFR – notably the conservation of threatened species living in the landscape. By providing alternatives to illegal hunting, and revenue to support sustainable livelihood development, the argument was that pressure on species would be reduced, which proved to be the case, as indicated by the M&E results.

Well-being of the local people was safeguarded of animal protein food sources, and revenue generation to lift the beneficiaries out of financial poverty. The project built the capacity of the GIC 'PECADJA BA' on the management and trade of sustainable river fishery products

A total of 550 people living in the northern buffer zone of the DFR benefitted from the project, through improved food security and increased household income.

4.4 Gender equality

The project was designed to be inclusive of gender and age. Specifically, women are members of the Board for the GIC (fishing, and cocoa) that emerged from project activities. Women also received direct benefits in the form of fishing materials and cocoa saplings from the project. As detailed about, the role of women in the sales of food products has been recognised as being more important than the role of men; shifting from hunting to trade has therefore increased the roles of women in local society.

Evidence: \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 1 Alternative Protein\GIC organisation

4.5 Programme indicators

One of the Outputs of the project was the creation of 'fishers of the Dja – a *Groupement d'Initiative Commune* (GIC, in English 'Common Initiative Group') to decide on rules and regulations for those taking part in sustainable fishing, including the use of minimum net mesh size, to conserve fish stocks.

The local MINFOF Conservation Service office, situated in Somalomo, which is located at the beginning/end of the road that gives access to the northern buffer zone communities holds regular meetings with villagers living in the buffer zone. These meetings commenced during the second year of the project. In addition, Representatives of the project beneficiaries are invited to, and attend six-monthly meetings of the Dja Actors' Forum

[REDACTED]

[REDACTED]

There is an extant Dja Faunal Reserve Management Plan, which is reviewed regularly in the ‘Dja Actors’ Forum’, held every six months. Representatives of the project beneficiaries are invited to, and attend these meetings.

[REDACTED]

[REDACTED]

The meetings of the GIC were initially facilitated by the project partners in order to support equal representation of women and men. The GIC of fishermen, *PECADJA BA* was set up by members of all the communities themselves, between them, with support from project staff. The Executive Bureau comprises of six people: women (03); men (03).

[REDACTED]

[REDACTED]

Positive influence of the project on households was seen at the level of increase in household income.

[REDACTED]

[REDACTED]

Both annual and individual cocoa sales from 2018 (when rehabilitated cocoa plantations began yielding cocoa) to 2020 (when both rehabilitated and newly created cocoa plantations yielded cocoa) indicated in the spreadsheet of income. Increase revenue from cocoa sales” confirms this increase. This was recorded during group cocoa sales in the village.

[REDACTED]

[REDACTED]

4.6 Transfer of knowledge

The focus of the project was on local training and capacity building, as opposed to formal qualifications (although see below). There were several key areas of knowledge transfer:

- 4.6.1 new production techniques for the cultivation of cocoa trees
- 4.6.2 improvements in cocoa crop horticulture, leading to an increase of up to 325% in the amount of cocoa produced before and after training
- 4.6.3 improvements in sustainable river fishing, including the use of minimum net mesh size and safety
- 4.6.4 increased knowledge of wild caught fish preservation, including the construction of smokerries to increase longevity of catch and the use of solar-powered freezers
- 4.6.5 training of monitoring and evaluation NGO staff (see below)

The project recruited an M. Sc student from the University of Douala (INSTITUTE OF FISHERIES AND AQUATIC SCIENCES AT YABASSI).

They analysed current methods and community approaches and recommended new practices (see attached M.Sc. dissertation). Their studies and master thesis have been shared with Communities via the Executive Bureau of the GIC PECADja Ba. In addition, the second part of their studies is related to the proposed fisheries business plan and the community/GIC can now turn this into a concrete project at any time when there is opportunity.

The changes implemented resulted in a significant increase in longevity of the edibility of the caught fish, the sustainable off taking of fish in the river (proposed approach to deal with Dja river offtake plan for communities according to the 4 sectors, in addition to a significant reduction in the loss of fish product to insects.

A Cameroonian male (23 years) is currently finalising a PhD thesis that is focussing on comparing two conservation approaches – this Darwin Initiative project approach in the Dja (the REA approach), to that of the community approach in the Malen V side. The qualification is that he will obtain a PhD at the end.

The project supported four (04) students from Yabassi Fishery Institute (University of Douala) who achieved their Master's degree under the project activities (evidence: theses). One (01) achieved a Bachelor's degree as engineer at the fishery school also. All were under supervision of M. Mama Mouamfon, FCTV coordinator.

All are Cameroon nationals; 3 females and 2 males

4.7 Capacity building

There was no increase in partners status however, there was increase capacities in a new local conservation approach that is focus on REA which is yet to be confirmed by the ongoing PhD work by APGS student.

5 females and 10 males were involved in the execution of this project and consequently had reinforced capacities.

5 Sustainability and Legacy

Improved cocoa production, the establishment of a value trade in cocoa, and more effective fishing are highly likely to endure, as those taking part in the project have confirmed that they have seen benefits and are likely to carry on with activities.

Discussions particularly with female trades-people have also resulted in positive feedback, as evidenced in . A natural follow-on activity is to support women and men who would like to develop their skills as SME entrepreneurs such that commodities other than food could be opportunities for development and discussions are taking place with bi-lateral funders to provide seed money for training and initial activities.

New techniques for cocoa production have resulted in increased yield. These increases will be sustained beyond the life of the project due to capacity-building of the farmers being an integral aspect of the project.

The exit strategy was as planned i.e. the focus of activities was capacity building of local people such that they could learn how to 1. grow, maximise yield and trade in cocoa and 2. increase fishing effectiveness, ensure safety, preserve and trade in wild-caught fish. All of the resources purchased under the project will remain in the target area i.e. seedlings, fishing equipment, solar-powered freezers, smokeries.

Project staff will continue to work for the organisation that employed them previously or take up new positions elsewhere i.e. within Cameroon APGS, TF-RD, FCTV, and internationally AWF, RAZS, LEL

6 Lessons learned

What worked well:

- There was a high level of local participation in the project, either in cocoa production, sustainable fishing, or both, using Participatory Learning and Action methodology
- The engagement of local people through Reciprocal Environmental Agreements was a key success factor, which worked well
- The self-organisation of the communities into GIC to support project activities and ensure fairness of distribution of benefit is considered a success. A key lesson learned was that the 'early adopters' in the project (both cocoa production and sustainable river fishery) needed to consider how (if) they would accommodate 'laggards' (*Rogers, E (1995). Diffusion of Innovations. New York: Free Press,*).

- There was an increase in HH revenue derived from either cocoa production or sustainable river fishing, or both, which was a key element of meeting the Outcome
- Engagement and involvement of women, principally in the trade of goods produced under project support

What didn't work well:

- Pre-project assumptions, notably around the proximity of the river affecting choice of activity by local people (fishing as opposed to fish-farming)
- Change in Ministry officials resulted in poor communication and misinformation with local people e.g. confiscation of legally obtained goods (fish, meat) in Year 2 of the project (resolved by EOP)
- Change in project staff resulted in reduced input from one of the partners (AWF)
- At the beginning of the project, access to the 17 villages was very difficult but following pressure by project staffs and local population on the Cameroon government authorities about the poor state of the road, the later has ameliorated the situation. A new movable bridge was placed on river Dja to facilitate crossing into the villages from Somalomo. The 42km road from river Dja to Elandjo (the last of the 17 villages) was rehabilitated. The road from Messamena to Somalomo is currently being rehabilitated. This will facilitate commercialisation of agricultural products from these villages.

We would Invest in more pre-project consultation with stakeholders. Whilst the project delivered its Outputs and Outcome to a large extent (in will, in the fullness of time), the activities changed shape early on in project delivery due to assumptions shaped by discussions in the same landscape, but with different underlying key factors affecting decision-making; this affected initial project design.

Fishing in the Dja River is not only carried out by the target communities, but by others farther living further afield. The project did not allow for engagement with these fisher-people, so there is therefore a potential tension between beneficiaries of the project (increased fishing effectiveness in those who were given project support under REA), and those people 'coming in' to the target area to fish. A strategy for addressing this could have been produced during the lifetime of the project if the issue of potential conflict between the two 'groups' of fisher-people had been identified.

One of lessons learned in the project was that an increased availability of fish resulted in a surplus, which could then (and was) be traded. Initially, the fish was smoked in traditional ways, which proved to be highly ineffective – the construction of the smokeries was such that the fish began to rot within 24 hours. The project accessed a researcher to look at ways of improving fish preservation, which resulted in a much more effective process and consequently longer preservation time; this allowed to fish to be traded beyond the local village, with minimal loss of product.

Check any assumptions through prior scoping trips before project implementation

If possible, meet with other project managers working in the same landscape or in the same sector e.g. food security. It would have benefitted our project if we could have had in-depth discussions with the EU, but it proved challenging to meet.

Several key lessons have been learnt:

1. PLA can be an effective methodology for implementing effective, sustainable change. In this project, an obvious shift was needed in project design in order to deliver the Outputs (fish farms to sustainable fishing); the PLA methodology enabled issues to be identified, discussed and overcome sufficiently quickly such that the project met its objectives. A 'prescribed', 'top-down', 'solution' would not have worked (fish-farming would have almost certainly failed)
2. The delivery of individual benefits was critical to initial engagement and for establishing sustainability

6.1 Monitoring and evaluation

There was a significant change in project design (supported through a formal change request to the logframe) to move from fish-farming to sustainable river fishing. This was due to an original assumption being incorrect (that fish-farming would be the primary means by which the target beneficiaries would prefer to undertake for food security). The methodology used in the project however allowed for this change to be accommodated without negatively impacting on the Outputs or Outcome.

The project put considerable emphasis in ensuring that there was a robust system in place in order to monitor and evaluate change. The lead partner (Conservation Research Centre, Royal Antwerp Zoological Society) is a scientific research organisation and this expertise is reflected on the project's ability to record and evaluate change (see Dropbox folder \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence).

Yes. An analysis of the effectiveness of REAs using the data collected via this project has become the basis of the PhD study of Jacques Kuenbou (see above); therefore, the quality of the data collected for the M&E of our project has been thoroughly evaluated by the PhD supervisors involved in the study (Dr Willie Jacob, Antwerp Zoo Society and Ghent University; and have been deemed suitable for PhD investigations and ultimate publication in peer reviewed journals.

6.2 Actions taken in response to annual report reviews

Several in-country meetings have been held to discuss the reviews, in particular the mid-term review carried out by LTS, including an Aide Memoir produced by Victoria Pinion, Lead Researcher.

In addition, Cameroon MINFOF protocols dictate that any findings from projects involving collaboration with local villagers must subsequently arrange and take part in formal feedback to these collaborating villagers. The project has therefore completed two formal feedback days, where the findings of the project were presented to the 17 villages located in the target area.

7 Darwin identity

We use logos on booklets produced (fishery document for example) disseminated using WhatsApp network, power point presentation in meetings (DAF for example). In addition, landscape conservation website has been used (<https://www.landscapeconservation.org.uk/darwin-project>) to capture outputs from the project and publicise specific events, such as signing of the REA.

Acknowledgement of the UK's contribution has been made whenever there has been engagement with local stakeholders e.g. through the use of banners and posters during the signing of the REA in the communities. The Darwin Initiative logo was also present during any presentations to the Dja Actors' Forum, as well as an annual conference on innovation in bioscience, climate change and food security.

Evidence: \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 4 Dissemination\Dja Actors' Forum; Evidence: \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 4 Dissemination\Publications

The project had its own identity, although it was recognised as being a co-funder in the ECOFAC 6 project. It also has its own website pages (<https://www.landscapeconservation.org.uk/darwin-project>).

The Darwin Initiative is well recognised as a contributor to biodiversity protection within Cameroon by all of the main actors in wildlife conservation i.e. Government departments and NGOs. The intervention work supported by Darwin is particularly well-known, with presentations on Darwin Initiative projects given by project staff at regular meetings of the Dja Actors' Forum – a open forum for individuals, Government and NGO personnel to share lessons learned and plans for supporting the management of the Dja Faunal Reserve.

8 Impact of COVID-19 on project delivery

The project suspended field activities for about 2 months to avoid the spread of the virus. We also suspended in-country partner meetings. This caused a delay in activity implementation, especially in the field.

During this lockdown period, we kept contact with the local population through phone calls when they go to Somalomo where there is telephone network. We gave them instructions on the way forward while waiting for the lockdown to be over. Partners held meetings online and communicated using mobile telephones.

The project adhered to preventive measures recommended by the Cameroon government. There were two reported cases of COVID-19 in the target villages, both researchers from a different project; there were no identified cases of COVID-19 in any of the project staff.

There is continued debate over the emergence of COVID-19, but the project made a valuable contribution to reducing the risk of pandemic zoonoses emerging from people eating wild-caught meat, through providing sustainable alternatives for local consumption.

The project has introduced new forms of preservation of fish catch i.e. solar freezers, that are be used locally to conserve fresh fish and avoid travelling out of community to purchase protein; this reduces contact with external people (if isolation is introduced as a means of curtailing the pandemic).

The project partners have always maximised ways of working virtually where possible. There are limits however, in that in this particular area infrastructure is limited, especially in regards to stable Internet access. In addition, local villagers rely on face-to-face communications. The project area was also one of the foci for Darwin project 25-004 ('Why Eat Wild Meat?'), which did receive a Darwin Initiative grant for looking at the impacts of COVID-19 on Darwin projects. This project recognised that there are limited alternatives to meeting face to face with people living in remote rural locations such as the buffer zones of the DFR.

9 Finance and administration

9.1 Project expenditure

Project spend (indicative) since last annual report	2020/21 Grant (£)	2020/21 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				

Overhead Costs	
Travel and subsistence	
Operating Costs	
Capital items (see below)	
Others (see below)	
TOTAL	

Staff employed (Name and position)	Cost (£)
Nikki Tagg (Project Leader)	
Neil Maddison (LEL Associate; co-Project Leader)	
Donald Mbohli (APGS In-country Coordinator)	
Mama Mouamfon (FCTV Program Coordinator)	
Adi Nwafi (TF-RD Coordinator)	
Jef Dupain (Independent Consultant)	
TOTAL	

Capital items – description	Capital items – cost (£)
None	
TOTAL	

Other items – description	Other items – cost (£)
None	
TOTAL	

9.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)	
Confirmed funding: Lead Organisation (salaries CRC and APGS = £ [REDACTED] + extra £ [REDACTED] towards Nikki Tagg's salary as Darwin funds were directed to Neil Maddison)		
Confirmed funding: Partner Organisations (salaries AWF, FCTV and TF-RD salaries)		
Confirmed funding: Lead Organisation project costs (£ [REDACTED])		
Unconfirmed funding: Lead Organisation project costs (£ [REDACTED] of the £ [REDACTED] unconfirmed funds were provided by CRC)		
TOTAL		
Source of funding for additional work after project lifetime		
None		
TOTAL		

9.3 Value for Money

The fact that the in-country partners are long-established; established relationships with officials and with local people; collaboration between partners meant not just cost sharing, but information/best practice sharing, etc. All objectives had sustainable outcomes, so this work leads to long lasting effects.

10 OPTIONAL: Outstanding achievements of your project during the (300-400 words maximum).

This section may be used for publicity purposes

I agree for the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

Annex 1 Project’s original (or most recently approved) logframe, including indicators, means of verification and assumptions.

Note: Insert your full logframe. If your logframe was changed since your Stage 2 application and was approved by a Change Request the newest approved version should be inserted here, otherwise insert the Stage 2 logframe.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: A biodiversity benefit for Dja landscape, Cameroon, through addressing the main pressures on the ecosystem and species by an improvement in livelihoods, welfare and food security for forest-dependent rural poor.</p>			
<p>Outcome: Rural-living people in 22 northern-Dja communities generate protein and income through non-hunting means, contributing to food security and poverty alleviation, enabling less hunting and leading to protection of threatened biodiversity.</p>	<p>0.1 Up to 3000 people in 22 communities in northern Dja periphery exhibit an increase in food security: a 20% increase in grams of meat consumed by household (baseline to be established in 2017) 0.2 Up to 3000 people/500 households in 22 communities exhibit a reduction in degree of poverty: net monthly financial income increases by 20% from baseline (to be established in 2017) 0.3 Up to 3000 people in 22 communities report % lower proportion of net monthly income coming from sale of bushmeat (baseline to be established in 2017) 0.4 Abundance of small mammals in surrounding forest shows an annual 5% increase from baseline and that of large mammals shows stabilisation of baseline (to be established in 2017) 0.5 Up to 3000 people in 22 communities exhibit a 10%</p>	<p>0.1a Consumption surveys 2017, 2019 and 2021 0.1b Annual estimates of total household incomes and food prices, 2017-2021 0.1c Comparison with least-cost diets that meet energy and nutrient needs 0.1d A series of questions to assess perceptions, past experiences, and food acquisition and allocation behaviour within the household, 2017, 2019 and 2021 0.2 Empirical household socio-economic surveys (primary and secondary income and expenditure), 2017, 2019 and 2021 0.3 Empirical household socio-economic surveys (primary and secondary income and expenditure), 2017, 2019 and 2021</p>	<p>External pressure continues to create sustainable use concern for local hunters and wildlife traders Improved enforcement of wildlife laws and sanctions in Dja landscape address hunters and wildlife traders who refuse to participate in the scheme National government remains amenable to policy dialogue and reform</p>

	decrease in hunting effort in hunting zones from baseline (to be established in 2017) and no hunting reported in no-take zones	0.4 Bi-annual (rainy & dry season) small and large mammal abundance surveys, 2017-2021 0.5a Annual hunting effort surveys (trap and gun hunting follows; hunter timeloggng), 2017-2021 0.5b Annual bushmeat offtake surveys, 2017-2021 0.5c Reports from anti-poaching committees facilitated by NGO facilitators	
Outputs: 1. New livelihood paradigms established in 22 rural poor communities for the provision of sustainable non-wild meat protein sources for the short- to long-term	1.1 Up to 1800 adults with families (40% women) attend 2-day workshops (7 workshops held across northern periphery in year 1) by year 2 1.2 75% of trainees (>30% women) register for the activity by year 3 1.3 80% of registered adults report spending >25% of their 'working' time working towards the protein-generating activity by end of year 4	1.1 Workshop attendance registers; surveys before and after on understanding of conservation benefits, purpose of training, capacities for activities, etc 1.2 Signed agreements 1.3 Survey data; interviews; field reports, etc...	75% of population of 22 communities are present in locality/healthy/available and are thus able to attend the workshops Registered members of the scheme do not abandon the activity within the first year
2. A participatory process for training and capacity building made available to 22 rural poor communities, to establish sustainable sources of non-hunting financial income	2.1 Up to 1800 adults with families (40% women) attend 3-day workshops (10 workshops held annually across northern periphery in years 1 and 2) by year 3 2.2 50% of trainees (>30% women) apply to participate in scheme and pay small registration fee by year 3; and an additional 25% by year 4	2.1 Workshop attendance registers; surveys before and after on understanding of conservation benefits, purpose of training, capacities for activities, etc 2.2 Signed agreements	75% of population of 22 communities are present in locality/healthy/available and are thus able to attend the workshops That the registration fee remains low enough to be accessible to rural poor, but high enough to ensure dedication to the scheme and to prevent

	2.3 75% of registered adults report launch of income-generating activity by end of year 4	2.3 Knowledge, attitude and practice surveys (KAP), using semi-structured interviews	abandonment of the activity within the first year
3. Official programmes for behavioural modification (REAs) established, accepted and respected by hunters and meat traders in 22 communities (covering an area of 2500km ²)	<p>3.1 Model of REA officially submitted to national and local government bodies and specific REAs for each of 22 communities presented in year 1</p> <p>3.2 Representatives of 22 communities (40% of number of households of 80% of number of communities represented at each stage) attend series of workshops (21 workshops in 7 locations over first 3 years) in which local authorities attend</p> <p>3.3 Greater understanding of cultural barriers that need to be overcome to shift from hunting based to sustainably-managed resource communities</p> <p>3.4 Individuals achieve REA completion (signed, launched) by end of year 4 (up to 200 by end year 2, up to 250 by end year 3, up to 300 by end year 4)</p>	<p>3.1 Confirmation of receipt from MINFOF of official submission of model (email)</p> <p>3.2 Attendance registers, photographic evidence of attendances, and workshop leaders' reports</p> <p>3.3 Knowledge, attitude and practice surveys (KAP), using semi-structured interviews. Separate DI project 'Why eat wild meat?'</p> <p>3.4 Completed and signed REAs (300 by end year 4)</p>	<p>That the government remains open to submission and discussion of such schemes</p> <p>Full participation of community members enlisted</p>
4. Project learning influencing regional/national level policy formation leading to integration of identified best practice and activities into Dja Management Plan and national policy	4.1 Integration of REA model and project lessons learnt in Dja Management Plan, revised National Biodiversity Strategy and Action Plan	<p>4.1 Excerpts of management plan, strategies and action plan</p> <p>4.2 Journal confirmation emails; published articles; DOIs</p> <p>4.3 Google scholar citation statistics</p>	That the government accepts and approves of the REA scheme

	<p>4.2 >10 media, popular science and peer-reviewed publications of data and results arising from project</p> <p>4.3 >10 references to critical project findings in third party publications, media reports and policy papers</p>		
<p>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)</p> <p>0.1 Partner inception planning meeting and project launch meeting with key partners and stakeholder groups (Somalamo - Dja)</p> <p>0.2 Verification of selection of target 22 villages (self-selection process) through follow up dialogues by community facilitators with villages previously engaged in sustainable development activities in the Dja periphery</p> <p>0.3 Baseline review for socio-economic and biological indicators (baseline socioeconomic survey/faunal survey of target zone)</p> <p>1.1 Organisation and running of 7 2-day workshops across the northern periphery – to include open-ended interviews/discussions with communities to agree to participate in the scheme to achieve practical protein alternatives, to address food security issue</p> <p>1.2 Individuals and village associations encouraged to register for scheme; process put in place for registration; regular review of registration statistics</p> <p>1.3 Agreements defined, agreed and written up for individuals and village associations registering for scheme</p> <p>1.4 Provision of training in river safety</p> <p>1.5 Provide training and materials for the construction of lifejackets for use when river-fishing</p> <p>1.6 Provision of suitable fishing material for sustainable take</p> <p>1.7 Construction of up to eight fish smokeries</p> <p>1.8 Analysis and provision (if appropriate) for the use of two solar-powered freezers for storage of fish products</p> <p>1.9 Initiate a study for the development of a sustainable fishing zone, based on Wildlife Act (1994), Articles 118-120</p> <p>1.10 Produce and disseminate information of existing wildlife law relating to fishing, and potential impact on fisher-people</p> <p>1.11 Training in establishing value chains for sustainable fish products</p> <p>1.12 Technical support at all stages</p> <p>1.13 Regular monitoring surveys and data analysis of socio-economic and biological indicators to assess progress against indicators including how much time adults spend working towards protein-generating activity by end of year 4</p> <p>2.1 Organisation and running of 10 3-day workshops in across the northern periphery (in years 1 and 2) – to include open-ended interviews/discussions with communities to agree to participate in desired income alternatives, to address poverty issue.</p> <p>2.2 Individuals and village associations encouraged to register for scheme; process put in place for registration; regular review of registration statistics</p> <p>2.3 Agreements defined, agreed and written up for individuals and village associations registering for scheme</p> <p>2.4 Discussions with cocoa farming technicians for planning for cocoa farming (previously emerged as the desired income-generating activity in the region)</p> <p>2.5 Cocoa farming initiated in target communities (planting, growing, harvesting, etc) leading to launch of income-generating activity in up to 22 communities by end of year 4</p>			

- 2.6 Workshops and groups meetings, as well as on the ground demonstrations, one-to-one sessions and ongoing support by technicians available for individuals and village associations in 22 communities (in years 2 and 3) for training and capacity building for cocoa farming (previously emerged as the desired income-generating activity in the region)
- 2.7 Monitoring and maintenance of cocoa farms (with cocoa farming technicians) for productivity, control of pests/disease, marketing, (building of management skills), etc
- 2.8 Business planning at the cooperative level e.g. transformed products for market robustness/diversification of risk
- 2.9 Technical support at all stages
- 2.10 Regular monitoring surveys and data analysis of socio-economic and biological indicators to assess progress against indicators including how many adults report launch of income-generating activity by end of year 4

- 3.1 Review, verification and/or adjustment of agreed parameters for the sustainable wildlife-harvesting model established under Darwin 20-007 (community consultation; MINFOF consultation; review of literature and best practice)
- 3.2 Focus group discussions with representatives from 22 villages joining the scheme to verify and establish parameters (agree equitable/transparent management structure/system, information sharing mechanisms/monitoring system) – increase understanding of benefits/roles, impacts of cultural changes
- 3.3 Drafting/translation of sample REA (Consolidation of findings from village discussions on desired scheme parameters; Review and feedback from community representatives)
- 3.4 Joint village (up to 22 participating villages represented) meeting for signing REAs
- 3.5 One-day workshop for relevant government agencies for final agreement and signing of REAs (7x1-day)
- 3.6 Monitoring of implementation of REAs (data collection and local partner reports)
- 3.7 Regular monitoring surveys and data analysis of socio-economic and biological indicators to assess progress against indicators including measures of knowledge and attitude to assess understanding of the barriers to cultural change

- 4.1 Bimonthly reports of local partners published on project partner webpages and disseminated through project partner newsletters/soundbites, etc
- 4.2 At least 4 issue-based webinars and e-newsletters to feedback and receive inputs from Community of Practice (CoP) and project partner network members
- 4.3 Drafting of technical paper for review by CoP (CoP will primarily peer review emerging REA data and design, help identify impact pathways, promote learning and facilitate the dissemination of project learning to national and subnational policy makers)
- 4.4 Dissemination of final project reports and technical paper amongst project partner networks, on project partner websites, and in at least 6 appropriate news/popular science bulletins/articles or reports.
- 4.5 Publication in peer-reviewed and popular science journals of main evidence-based project results (at least 4 publications).

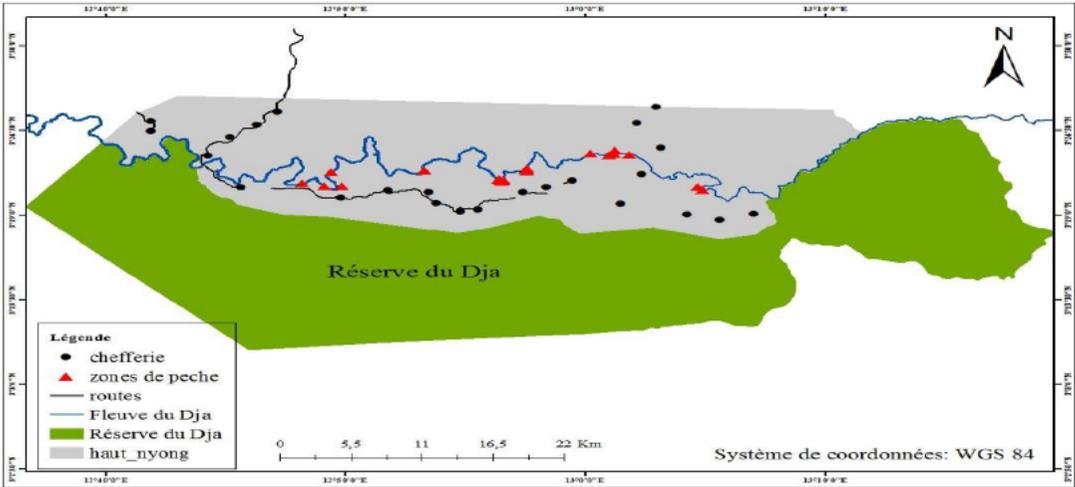
Annex 2 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements
<p>Impact:</p> <p>A biodiversity benefit for Dja landscape, Cameroon, through addressing the main pressures on the ecosystem and species by an improvement in livelihoods, welfare and food security for forest-dependent rural poor</p>		<p>The project has demonstrated that there is a positive effect on biodiversity protection within a Protected Area through the provision of sustainable, legal sources of protein (fish), and the alleviation of poverty through support for legal, revenue generating trade (cocoa and fish).</p> <p>This model seems particularly applicable in those situations where rivers form natural boundaries to national parks and PA – which is the dominant case in Cameroon.</p>
<p>Outcome</p> <p>Rural-living people in 22 northern-Dja communities generate protein and income through non-hunting means, contributing to food security and poverty alleviation, enabling less hunting and leading to protection of threatened biodiversity</p>	<p>0.1 Up to 3000 people in 22 communities in northern Dja periphery exhibit an increase in food security: a 20% increase in grams of meat consumed by household (baseline to be established in 2017)</p> <p>0.2 Up to 3000 people/500 households in 22 communities exhibit a reduction in degree of</p>	<p>See \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Monitoring and evaluation for evidence of the below.</p> <p>We noted an overall decrease in bushmeat consumption of over time. Indeed, the consumption frequencies for November and December 2020 show a significant reduction compared to that of June 2019. A gradual decrease, although not significant, is also observed from September 2019, and the frequency dropped from 12.27 in September 2019 to 9.84 in December 2020.</p> <p>The average income for men was 56,000 in 2018 for men and 29,000 for women. We observed a slight decrease in 2021 with 29,000 and 24,000 respectively for men and women. However, the decrease in income from bushmeat (see 0.3 below) and the fact</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>poverty: net monthly financial income increases by 20% from baseline (to be established in 2017)</p> <p>0.3 Up to 3000 people in 22 communities report % lower proportion of net monthly income coming from sale of bushmeat (baseline to be established in 2017)</p> <p>0.4 Abundance of small mammals in surrounding forest shows an annual 5% increase from baseline and that of large mammals shows stabilisation of baseline (to be established in 2017)</p> <p>0.5 Up to 3000 people in 22 communities exhibit a 10% decrease in hunting</p>	<p>that the involvement in other income generating activities is fairly early days, we expect this to rise post-project.</p> <p>At the start of the project, average income from the sale of bushmeat was around 21,000 FCFA per hunter. At the end in December 2020, the average income is 15000. That is a reduction of 30%.</p> <p>Analysis of variations in wildlife abundance did not show any difference between years. There is no significant difference between abundance of Rodents, Small primates and large mammals between 2018 and 2020. It is encouraging that was no decrease, and an increase could be expected to be observed in subsequent years, as alternative income and protein generating activities advance.</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>effort in hunting zones from baseline (to be established in 2017) and no hunting reported in no-take zones</p>	<p>At the start of the project, each hunter was spending approximately 5 hours to hunt per month. At the end, this average time for hunting is 3.5 hours per month. That is a reduction of 30% in 2 years.</p>
<p>Output 1.</p> <p>1. New livelihood paradigms established in 22 rural poor communities for the provision of sustainable non-wild meat protein sources for the short-to long-term</p>	<p>1.1 Up to 1800 adults with families (40% women) attend 2-day workshops (7 workshops held across northern periphery in year 1) by year 2</p> <p>1.2 75% of trainees (>30% women) register for the activity by year 3</p> <p>1.3 80% of registered adults report spending >25% of their 'working' time working towards the protein-generating activity by end of year 4</p>	<p>Evidence for all activities under this Output is provided in \Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 1 Alternative Protein</p> <p>During the early stages of the project, we organised Semi Structured Interviews with 96 women and 86 men; we also worked with 335 persons in the 22 communities to come out with communities' activities choices (see attendance list in Evidence: At the end, we have 118 persons registered in the GIC PECDJA-Ba (see annual report from GIC).</p> <p>35% of the 335 female; 65% male.</p>
<p>Activity</p>		

Project summary	Measurable Indicators	Progress and Achievements
1.1 Organisation and running of 7 2-day workshops across the northern periphery – to include open-ended interviews/discussions with communities to agree to participate in the scheme to achieve practical protein alternatives, to address food security issue		Meetings in 17 villages to introduce project through SSI, and meetings in 17 villages to come out with communities' choice (see report).
1.2 Individuals and village associations encouraged to register for scheme; process put in place for registration; regular review of registration statistics		We set up a GIC named GIC PECADJA-Ba with 118 members today (see GIC annual report and some of their register)
1.3 Agreements defined, agreed and written up for individuals and village associations registering for scheme		Under REA, this has been done (photos, REA signature report)
1.4 Provision of training in river safety		Done in the training to manufacture lifejacket (see training Modules, photos and booklet)
1.5 Provide training and materials for the construction of lifejackets for use when river-fishing		Training has been organised in the 4 sectors one day per sectors (see photos)
1.6 Provision of suitable fishing material for sustainable take		Three campaigns have been done (see GIC annual report and some distribution list)
1.7 Construction of up to eight fish smokeries		08 have been constructed, Done and reception document available and photos
1.8 Analysis and provision (if appropriate) for the use of two solar-powered freezers for storage of fish products		One solar freezer has been installed. One provided and failed, now undergoing repair

Project summary	Measurable Indicators	Progress and Achievements
1.9 Initiate a study for the development of a sustainable fishing zone, based on Wildlife Act (1994), Articles 118-120		<p>We conducted a study under a Masters' thesis document (Evidence: Dropbox\Darwin 24-005 Year 4 Final Reports\Final Report Evidence\Output 4 Dissemination\Publications</p> <p>1. Mapping of fishing areas During the months of June and July 2020, field activities made it possible to collect data for the mapping of fishing areas in the different fishing sectors as a prelude to the spatial organization of the management of fishery products by the members of the GIC. The figure below shows the distribution of fishing areas along the Dja river. This figure was designed with the help of fishermen, made it possible to estimate the productivity per unit area (per square meter) and the potential productivity of the portion of the Dja (north loop) which was the subject of this study. . The map provided information on the total length of the portion as well as the average width of the river, and therefore the area of each fishing area.</p> 
1.10 Produce and disseminate information of existing wildlife law relating to fishing, and potential impact on fisher-people		<p>Two documents have been produced (see booklet)</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

Project summary	Measurable Indicators	Progress and Achievements
1.11 Training in establishing value chains for sustainable fish products		<p>Training has been done has an exit point of the project (report in evidence)</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
1.12 Technical support at all stages		<p>With student from Fishery school all around the implementation of project, this technical support has been provided in various forms. Finding of their studies have been share with GIC member each time.</p>
1.13 Regular monitoring surveys and data analysis of socio-economic and biological indicators to assess progress against indicators including how much time adults spend working towards protein-generating activity by end of year 4		<p>[REDACTED]</p> <p>[REDACTED]</p>
<p>Output 2. A participatory process for training and capacity building made available to 22 rural poor communities, to establish sustainable sources of non-hunting financial income</p>	<p>2.1 Up to 1800 adults with families (40% women) attend 3-day workshops (10 workshops held annually across northern periphery in years 1 and 2) by year 3</p> <p>2.2 50% of trainees (>30% women) apply to</p>	<p>03 Workshops were held in the 17 villages, 373 people participated in the restitution meeting.</p> <p>190 men (53%) and 167 women representing (37%) of the total population actively contributed in discussions about the approach</p> <p>Over 70% of the participants in the training were men while 30% were women.</p> <p>6 workshops held in the 17 villages to present and explain the process for registration to the scheme.</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>357 people participated in the meeting and a total of 190 men (53%) and 167 women representing (37%) of the total population actively contributed in discussions about the approach that is being transferred to their zone.</p> <p>The groups of farmers understood the relevant points concerning the process for registering to the scheme that will contribute towards the establishing income generating activities with cocoa</p>
<p>Activity 2.3 Agreements defined, agreed and written up for individuals and village associations registering for scheme</p>		<p>Two meetings organized in the 17 villages to present the draft of (REA), discussions with cocoa farmers for amendments and validation</p> <p>Two days' workshop organised in each of the 3 zones to present the 10 criteria for certification and conditions for registration, discussions and recommendations, During the sensitization meetings, about 178 people (including 08 women (04%) and 177 men (96%)) attended and understood the importance of producing certified cocoa and conserving biodiversity.</p> <p>The process of leading the local groups to Signe REA in the 17 villages: Through open-end discussions with groups, organising sensitisation meetings to present the 10 principles of Rainforest Alliance, its advantages, the economic, environmental and social benefits to the farmers engaging in this process.</p>
<p>Activity 2.4 Discussions with cocoa farming technicians for planning for cocoa farming (previously emerged as the desired income-generating activity in the region)</p>		<p>In total 231 people (including 89 women (38.5%) and 142 men (61.5%)) attended discussion meeting on the importance of producing certified cocoa according to Rainforest Alliance principles.</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>[REDACTED]</p> <p>[REDACTED]</p>
<p>Activity 2.5 Cocoa farming initiated in target communities (planting, growing, harvesting, etc) leading to launch of income-generating activity in up to 22 communities by end of year 4</p>		<p>Four training sessions of farmers on best cocoa farming practices and techniques for planting, farm maintenance, harvesting fermentation of good quality cacao: Three training sessions organised with 74 farmers.</p> <p>About 74 cocoa farmers were trained on techniques for creation of new cocoa farms on old fallow lands with diversified variety of fruit trees and local indigenous trees.</p> <p>In total more over 15000 cocoa plants distributed to over 70 cocoa farmers.</p> <p>The overall result, over 40 hectares of fallow land being valorised thereby permitting an avoided deforestation of 40 hectares of new land that would have been destroyed if this approach was not used. This is an overall positive impact for biodiversity conservation.</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p>Activity 2.6 Workshops and groups meetings, as well as on the ground demonstrations, one-to-one sessions and ongoing support by technicians available for individuals and village associations in 22 communities (in years 2 and 3) for training and capacity building for cocoa farming (previously emerged as the desired income-generating activity in the region)</p>		<p>03 days workshop was held to train the farmers on how to rehabilitate old plantations with more emphasis on clearing of plantations, adjustments of shade, standardization of planting densities, maintenance and renovation size, control of pests, black pods, replanting, diversification);</p> <p>178 farmers have been trained on techniques of cocoa rehabilitation while 10 farms of 6 hectares have been rehabilitated in the 03 zones</p>

Project summary	Measurable Indicators	Progress and Achievements
		<p>About 05 follow up sessions of the farms based on regular field visit to the Farmers Field School (FFS) that were initially rehabilitated and practical demonstration of training on the ground.</p> <p>03 local resources persons from the cocoa farmer’s cooperative carried out frequent proximity follow up assistance to reinforce farmer’s capacity on best cocoa farming method. About 85 farmers have been incentivised through practical trainings on best farm practices for cocoa maintenance and use of farm equipment with other farm inputs: There is an improvement in the rehabilitated farms. About 60% of the cocoa plants have regained their normal growth and there is improvement in the productivity of the cocoa pods. Harvest of more than 200Kg per hectare realised by cocoa farmers.</p> <p>Majority of the cocoa farms now received sufficient sunlight that stimulate and improves the growth of cocoa pods due to the adequate shading technique that were implemented.</p>
Activity 2.8 Business planning at the cooperative level e.g. transformed products for market robustness/diversification of risk		85 % of the cocoa famers have constituted themselves into a farmers group with the goal of doing business by selling their produce together and making profits. The group of farmers have equally diversified their cocoa farms with plantains, banana, cocoyams and fruit trees that help to reduce the risk of single crop cultivation.
Activity 2.9 Technical support at all stages		Completed through the ongoing support of lead partner on delivering this Output (Tropical Forest – Rural Development)
Activity 2.10 Regular monitoring surveys and data analysis of socio-economic and biological indicators to assess progress against indicators including how many adults report launch of income-generating activity by end of year 4		<p>About 75% of the cocoa farmers harvested and sold their cocoa that generated income of at least [REDACTED] during the lifetime of the project (around £ [REDACTED])</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

Project summary	Measurable Indicators	Progress and Achievements
<p>Output 3. Official programmes for behavioural modification (REAs) established, accepted and respected by hunters and meat traders in 22 communities (covering an area of 2500km²)</p>	<p>3.1 Model of REA officially submitted to national and local government bodies and specific REAs for each of 22 communities presented in year 1</p> <p>3.2 Representatives of 22 communities (40% of number of households of 80% of number of communities represented at each stage) attend series of workshops (21 workshops in 7 locations over first 3 years) in which local authorities attend</p> <p>3.3 Greater understanding of cultural barriers that need to be overcome to shift from hunting based to</p>	<p>Specific REA has been developed and agreed with fishermen, with copies submitted to conservation Unit and SDO. This has been done after several meetings to explain the importance of the REA and discuss about the responsibility of each party.</p> <p>2-day workshops were run per 'hub' (x3) each year, for community members, and local government representatives when appropriate. This included in total: 566 people, comprising 206 women (36%) and 360 men (64%).</p> <p>The project staff came to understand after their long experience in the field that community approaches to take responsibility is a great barrier for the REA approach. So unanimously, they took option to develop individual REA for each member of the Organisation (GIC PECADJA-Ba).</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>sustainably-managed resource communities</p> <p>3.4 Individuals achieve REA completion (signed, launched) by end of year</p> <p>4 (up to 200 by end year 2, up to 250 by end year 3, up to 300 by end year 4)</p>	<p>Two signing ceremonies were carried out in five different locations (hubs) for the signing of the two different REA i.e. one for the provision of support for development of alternative protein (fishing), and one for increased production and trade in cocoa production.</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p>Activity 3.1. Review, verification and/or adjustment of agreed parameters for the sustainable wildlife-harvesting model established under Darwin 20-007 (community consultation; MINFOF consultation; review of literature and best practice</p>		<p>This led to the agreement with responsibility of each party taking into account sustainable management of fish and wildlife.</p>
<p>Activity 3.2 Focus group discussions with representatives from 22 villages joining the scheme to verify and establish parameters (agree equitable/transparent management structure/system, information sharing mechanisms/monitoring system) – increase understanding of benefits/roles, impacts of cultural changes</p>		<p>In each village, field staff carried out consultation to discuss draft REA</p>
<p>Activity 3.3 Drafting/translation of sample REA (Consolidation of findings from village discussions on desired scheme parameters; Review and feedback from community representatives)</p>		<p>Several draft documents have been produced and discussed with communities before printing the latest agreed version, which that was signed in July 2018</p>

Project summary	Measurable Indicators	Progress and Achievements
Activity 3.4 Joint village (up to 22 participating villages represented) meeting for signing REAs		96 REA documents were signed by fishermen and women who voluntarily came up on the 25th and the 26th of July 2018 at four different points.
Activity 3.5 One-day workshop for relevant government agencies for final agreement and signing of REAs (7x1-day)		The local government representatives were present at all of the REA signing ceremonies, and learned the processes that had led to the agreements between the community members and the project
Activity 3.6 Monitoring of implementation of REAs (data collection and local partner)		<div style="background-color: black; height: 15px; width: 100%;"></div> Evidence\Monitoring and Evaluation
Activity 3.7 Regular monitoring surveys and data analysis of socio-economic and biological indicators to assess progress against indicators including measures of knowledge and attitude to assess understanding of the barriers to cultural change		<div style="background-color: black; height: 15px; width: 100%;"></div> Evidence\Monitoring and Evaluation
Output 4. Project learning influencing regional/national level policy formation leading to integration of identified best practice and activities into Dja Management Plan and national policy	4.1 Integration of REA model and project lessons learnt in Dja Management Plan, revised National Biodiversity Strategy and Action Plan 4.2 >10 media, popular science and peer-reviewed publications of	<p>The REA model was applied in the 22 communities residing in 17 villages. Ongoing work now is to keep comparing this model to the community model applied in other parts of the northern periphery of Dja to confirm the best conservation approach, to present to government authorities for integration in the Dja management plan e.g. at the Dja Actors' Forum</p> <p>It is noted that Output 4 has not been achieved as fully as anticipated. This can be attributed to a number of reasons (given in the narrative), but notably a failure to establish</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>data and results arising from project</p> <p>4.3 >10 references to critical project findings in third party publications, media reports and policy papers</p>	<p>a Community of Practice (CoP), which impacted on the project’s ability to disseminate information gathered from undertaking the activities.</p> <p>The NBSAP has not been amended during the lifetime of the project (expected June 2022); eight media and popular science publications were achieved (not ten, as target), and the project is only aware of eight references in policy papers, media reports and third party publications.</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p>Activity 4.1 Bimonthly reports of local partners published on project partner webpages and disseminated through project partner newsletters/soundbites, etc</p>		<p>There were numerous in-country meetings between the in-country partners ([REDACTED]), and these took place in Years 1, 2 and 3. Unfortunately COVID-19 restrictions made partner meetings impossible to hold (face to face), with virtual platforms difficult to implement in Cameroon. Regular communication and planning did take place, but this became less formalised.</p>
<p>Activity 4.2 At least 4 issue-based webinars and e-newsletters to feedback and receive inputs from Community of Practice (CoP) and project partner network members</p>		<p>The intention was to set up a Community of Practice during Years 3 and 4. Unfortunately, the presence of COVID - 19 meant that meetings could not take place to discuss ‘best practice’ and lessons learned. It is anticipated that this will occur naturally, for ongoing work to conserve the Dja Faunal Reserve.</p>
<p>Activity 4.3 Drafting of technical paper for review by CoP (CoP will primarily peer review emerging REA data and design, help</p>		<p>The CoP did not meet (see above); the role and implementation of REA is the subject of a technical paper currently being produced under a Ph.D study (see below)</p>

Project summary	Measurable Indicators	Progress and Achievements
identify impact pathways, promote learning and facilitate the dissemination of project learning to national and subnational policy makers)		
Activity 4.4 Dissemination of final project reports and technical paper amongst project partner networks, on project partner websites, and in at least 6 appropriate news/popular science bulletins/articles or reports.		<p>This was largely achieved, although some publications are anticipated beyond the EOP</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
Activity 4.5 Publication in peer-reviewed and popular science journals of main evidence-based project results (at least 4 publications).		<p>One has been completed and three are still In progress. It is anticipated that this report will serve as the basis for a number of science journal pieces, as well as in peer reviewed journals, including:</p> <ol style="list-style-type: none"> 1. Trends in bushmeat offtake and wildlife community structure in the northern periphery of Dja Faunal Reserve, Cameroon (Draft prepared and following corrections by co-authors) 2. Linking changes in hunter's socioeconomics characteristics and behavior (In preparation) 3. Assessing changes in household income and food security in rural people in a wildlife conservation area in Cameroon (In preparation) 4. Monitoring changes in local people's perception of wildlife and conservation and livelihood paradigms in northern sector of the Dja biosphere reserve, Cameroon (In preparation) <p>[REDACTED]</p> <p>[REDACTED]</p>

Project summary	Measurable Indicators	Progress and Achievements

Annex 3 Standard Measures

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
Training Measures							
1a	Number of people to submit PhD thesis	1	Cameroonian	Male	Evaluation of approaches used for the measurement of conservation effectiveness: a case study of wildlife conservation in the northern sector of the Dja landscape, Cameroon	English/French	University: Ghent University, Belgium
1b	Number of PhD qualifications obtained	0					
2	Number of Masters qualifications obtained	5					

3	Number of other qualifications obtained	0					
4a	Number of undergraduate students receiving training	2					
4b	Number of training weeks provided to undergraduate students	2x12 = 24					
4c	Number of postgraduate students receiving training (not 1-3 above)	0					
4d	Number of training weeks for postgraduate students	0					
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification (e.g., not categories 1-4 above)	200	Cameroonian	50:50 female/male	Cocoa production Sustainable fishing Preservation of caught fish (smokeries, frozen)	French	The focus of the project was training
6a	Number of people receiving other forms of short-term education/training (e.g., not categories 1-5 above)	0					
6b	Number of training weeks not leading to formal qualification	0					

7	Number of types of training materials produced for use by host country(s) (describe training materials)	2					Cocoa production Life jacket construction booklet (in evidence)
Research Measures		Total	Nationality	Gender	Title	Language	Comments/ Weblink if available
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (ies)	0					
10	Number of formal documents produced to assist work related to species identification, classification and recording.	0					
11a	Number of papers published or accepted for publication in peer reviewed journals	1	Cameroonian	Male	Please see Annex 5	English	See Annex 5
11b	Number of papers published or accepted for publication elsewhere	7	Cameroonian/UK	Female and Male	Please see Annex 5	English	See Annex 5

12a	Number of computer-based databases established (containing species/generic information) and handed over to host country	0					
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country	1					
13a	Number of species reference collections established and handed over to host country(s)	0					
13b	Number of species reference collections enhanced and handed over to host country(s)	0					

Dissemination Measures		Total	Nationality	Gender	Theme	Language	Comments
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	17				French	An important element of the project has been feedback to the communities. In addition,

Dissemination Measures		Total	Nationality	Gender	Theme	Language	Comments
							presentations have been made to regional management plans
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	Unknown, but range estimated at 20+					This will be ongoing. It is intended to roll out the lessons learned to all communities living around the Dja Faunal Reserve, and all will require presentations of this Darwin project

Physical Measures		Total	Comments
20	Estimated value (£s) of physical assets handed over to host country(s)	£0	
21	Number of permanent educational, training, research facilities or organisation established	0	
22	Number of permanent field plots established	0	Please describe

Financial Measures		Total	Nationality	Gender	Theme	Language	Comments
23	Value of additional resources raised from other sources (e.g., in addition to Darwin funding) for project work	£ [REDACTED]					

Annex 4 Aichi Targets

	Aichi Target	Tick if applicable to your project
1	People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	✓
2	Biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	✓
3	Incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	
4	Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	✓
5	The rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	
6	All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	✓
7	Areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	✓
8	Pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.	

9	Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.	
10	The multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	
11	At least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	
12	The extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	✓✓
13	The genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	
14	Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	✓
15	Ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	
16	The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	
17	Each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	✓

18	The traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	✓
19	Knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	✓
20	The mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.	

Annex 5 Publications

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers (name, city)	Available from (e.g. web link, contact address etc)
* Journal	Insectes ravageurs des poissons fumés au cours du stockage et dégâts occasionnés dans la boucle Nord de la Réserve de Biosphère du Dja (Est-Cameroun) Béranger Raoul TAMGNO1,3*, Hervé TEKOU NGUNTE1, Nectaire Lié NYAMSI TCHATCHO1, Mama MOUAMFON2 et Léonard Simon NGAMO TINKEU3 Feb 2020	Cameroonian	Cameroonian	Male	Int. J. Biol. Chem. Sci. 14(2): 528-538, February 2020	http://www.ifgdg.org
* Thesis (Masters' degree)	Enquête cadre et socioéconomique de la pêche artisanale et de la chasse dans la boucle nord de la Réserve de Biosphère du Dja (Est-Cameroun) BELLA NDJOMO Séraphine Nadège July 2018	Cameroonian	Cameroonian	Female	DEPARTEMENT DE GESTION DES PECHES ET DES ECOSYSTEMES AQUATIQUES <i>DEPARTEMENT OF FISHERIES AND AQUATIC ECOSYSTEMS' MANAGEMENT</i>	web: www.ish.cm
* Thesis (Masters' degree)	Contraintes liées à la pratique du stockage du poisson fume dans la boucle nord de la Réserve de Biosphère du Dja (Est-Cameroun) TEKOU NGUNTE Hervé	Cameroonian	Cameroonian	Male	DEPARTEMENT DE GESTION DES PECHES ET DES ECOSYSTEMES AQUATIQUES	web: www.ish.cm

	July 2018				DEPARTEMENT OF FISHERIES AND AQUATIC ECOSYSTEMS' MANAGEMENT	
* Thesis (Masters' degree)	Evaluation du potentiel economique de la ressource ichtyologique dans la boucle Nord de la Réserve de Biosphère du Dja (Est-Cameroun) DONGMO NGUEMEZI Divine July 2018	Cameroonian	Cameroonian	Female	DEPARTEMENT DE GESTION DES PECHEES ET DES ECOSYSTEMES AQUATIQUES DEPARTEMENT OF FISHERIES AND AQUATIC ECOSYSTEMS' MANAGEMENT	web: www.ish.cm
* Thesis (Masters' degree)	Évaluation de la productivité des ressources halieutiques dans les cours d'eaux naturels et mesure de gestion durable adaptée au Cameroun : cas de la boucle Nord de la réserve de biosphère du Dja. NTOUBADI MOULIOM Abas Aziz Délor July 2018	Cameroonian	Cameroonian	Female	DEPARTEMENT DE GESTION DES PECHEES ET DES ECOSYSTEMES AQUATIQUES DEPARTEMENT OF FISHERIES AND AQUATIC ECOSYSTEMS' MANAGEMENT	web: www.ish.cm
* Booklet	Pêche artisanale au Cameroun : Ce que le pêcheur devrait savoir FCTV Jan 2020	Cameroonian	Cameroonian	Female and Male	Self-published, Yaoundé, Cameroon	www.fctvcameroon.org

* Booklet	Pêche artisanale au Cameroun : Ce que le pêcheur devrait savoir FCTV Jan 2020	Cameroonian	Cameroonian	Female and Male	Self-published, Yaoundé, Cameroon	www.fctvcameroon.org
* Newsletter	“Necessity is the mother of invention” Project Partners (all) Nov 18	Cameroonian/UK	Cameroonian /UK	Female and Male	Darwin Initiative Newsletter	https://www.darwininitiative.org.uk/assets/uploads/Darwin-Newsletter-November-18-Unexpected-Achievements-FINAL.pdf
* Newsletter	“People Need to Eat” Project Partners (all) Dec 2020	Cameroonian/UK	Cameroonian /UK	Female and Male	Darwin Initiative Newsletter	https://www.darwininitiative.org.uk/assets/uploads/Darwin-Newsletter-December-2020-Hungry-for-Biodiversity-FINAL.pdf

Annex 6 Darwin Contacts

Ref No	24-005
Project Title	Enabling rural poor to help protect biodiversity of Dja, Cameroon
Project Leader Details	
Name	Dr Nikki Tagg
Role within Darwin Project	Project Leader
Address	[REDACTED]
Phone	
Fax/Skype	
Email	
Partner 1	
Name	Neil Maddison
Organisation	Living Earth/Landscape Conservation
Role within Darwin Project	Project Management
Address	[REDACTED]
Fax/Skype	
Email	
Partner 2 etc.	
Name	Donald Mbohli
Organisation	APGS
Role within Darwin Project	In country Coordinator
Address	[REDACTED]
Fax/Skype	
Email	

Annex 7 Supplementary material (optional but encouraged as evidence of project achievement)

There is a considerable amount of material provided in the Dropbox folder, which has been supplied as evidence of project achievement and may be useful when focussing on processes that have been effective in community consultation, buy in, capacity building and hence sustainability.

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.	✓
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.	✓
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 10)?	✓
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
Do you have hard copies of material you need 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. However, we would expect that most material will now be electronic.	✓
Have you involved your partners in preparation of the report and named the main contributors	✓
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	

M&E References in Dropbox

M&E Activity	Reference in Dropbox
Bush Meat offtake Survey	
Write up the questionnaire	C 1.1 Bushmeat Offtake Data sheet
Chose five key villages to work in	C 1.2 Georeference of villages
Organise five meetings - one in each village, sensitise hunters to present bushmeat to local workers	C 1,3 Photos of training & sensitisation meetings
Chose five local workers and assistants	C 1,3 Photos of training & sensitisation meetings
Train local workers and assistants on data collection, give them data collection material	C 1,3 Photos of training & sensitisation meetings
Bushmeat off take data collection in the villages	C 1,6 Photo of data sheets
Monitor bushmeat offtake data collection	C 1,7 No indicator

Data entry in computer	C 1,8 Bushmeat electronic data set 1, 2, 3, 4, 5, 6
Motivation of hunters for collaboration	C 1,9 Photos of food items
Data analysis and interpretation	C 1,10 No indicator
Household Socioeconomic Survey	
Write up the three questionnaires	C 2,1 Questionnaires
Organise five meetings with villagers - one in each village and sensitise them on the need to cooperate	C 1,3 Photos of training & sensitisation meetings
Identify all chiefs of households in five key villages	C 2,3 List of chiefs of households
Data collection - Socioeconomic Survey with Close End Questionnaire	C 2,4 Photo of data sheets
Socioeconomic Survey with Open End Questionnaire	C 2,5 Photo of data sheets
Socioeconomic Survey Village Information	C 2,6 Photo of data sheets
Data entry in computer	C 2,7 Electronic data
Motivation of chiefs of households	C 1,9 Photos of food items
Data analysis and interpretation	C 2,9 No indicator
Wildlife Survey	
Selection of sites, drawing of map, writing of protocol	C 3,1 Map of sites, data collection protocol, data sheets
Presentation of map, protocol to partners, authorities - conservator, chef d'antenne, sous prefet, etc.	C 3,2 No indicator
Informing/preparing local guides in villages	C 3,3 No indicator
Opening of transects in the forest and data collection on vegetation types	C 3,4 Waypoints of transects
Data collection on mammalian inventory	C 3,5 Photos of data on data sheets
Data entry in computer	C 3,6 Wildlife Survey Data
Data analysis and interpretation	C 3,7 No indicator yet