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/).

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

Darwin Project Information

Project reference	25-015
Project title	Why Eat Wild Meat?
Country(ies)	Cameroon
Lead organisation	IIED
Partner institution(s)	FCTV, The Conservation Foundation, University of Oxford
Darwin grant value	£365,826
Start/end dates of project	July 2018 – September 2021
Project leader's name	Francesca Booker (to Sept 2020) Dilys Roe (from Sept 2020) while Francesca Booker is on maternity leave, and Francesca Booker (August 2021-September 2021)
Project website/blog/social media	https://www.iied.org/why-eat-wild-meat
Report author(s) and date	Francesca Booker, Stephanie Brittain, Neil Maddison, Mama Mouamfon, Cedric Tibbo, Dilys Roe and EJ Milner-Gulland

1 Project Summary

Hunting of wildlife for meat is widely practiced in Africa - the scale of wild meat use in the Congo Basin alone is estimated at five million tonnes/year. Since the late 1990s, conservation and development organisations have been concerned about the scale of exploitation because of its implications both for conservation and for food security.

Many projects have targeted reducing hunting, and popular interventions include providing livelihood alternatives for hunters selling meat to urban consumers, reducing demand in urban centres, and providing alternative protein sources to rural consumers (through fish, livestock or captive-bred wild species). Available evidence suggests, however, that both livelihoods and alternative protein projects have experienced important challenges, affecting their ability to achieve their conservation and food security objectives. This is often because these projects overlook the underlying drivers behind the choice of wild meat as a food - including health, taste and tradition.

While much wild meat is destined for urban consumers, in many rural areas it is also routinely consumed as an important source of macronutrients (eg calories and proteins). This is the case for Dja Faunal Reserve (DFR) in Cameroon, where threatened species such as central African chimpanzees, western lowland gorillas, and giant pangolins are regularly hunted for meat. The

establishment of community hunting zones (CHZ), such as under [Darwin project 20-007](#), have helped take pressure off the reserve but are insufficient to meet the protein needs of the growing local population. It is therefore critical that additional protein supplies are available, culturally acceptable and affordable.

This project set out to improve the design of alternative protein interventions to increase their effectiveness and thereby reduce current levels of exploitation that are threatening both species survival and long-term local food security and nutrition. The work was targeted at organisations operating in and around the DFR, and also through wider evidence-gathering and engagement with other international stakeholders that support these interventions.

Figure 1: Dja Faunal Reserve with our four field sites indicated (exact locations not given for ethics reasons).
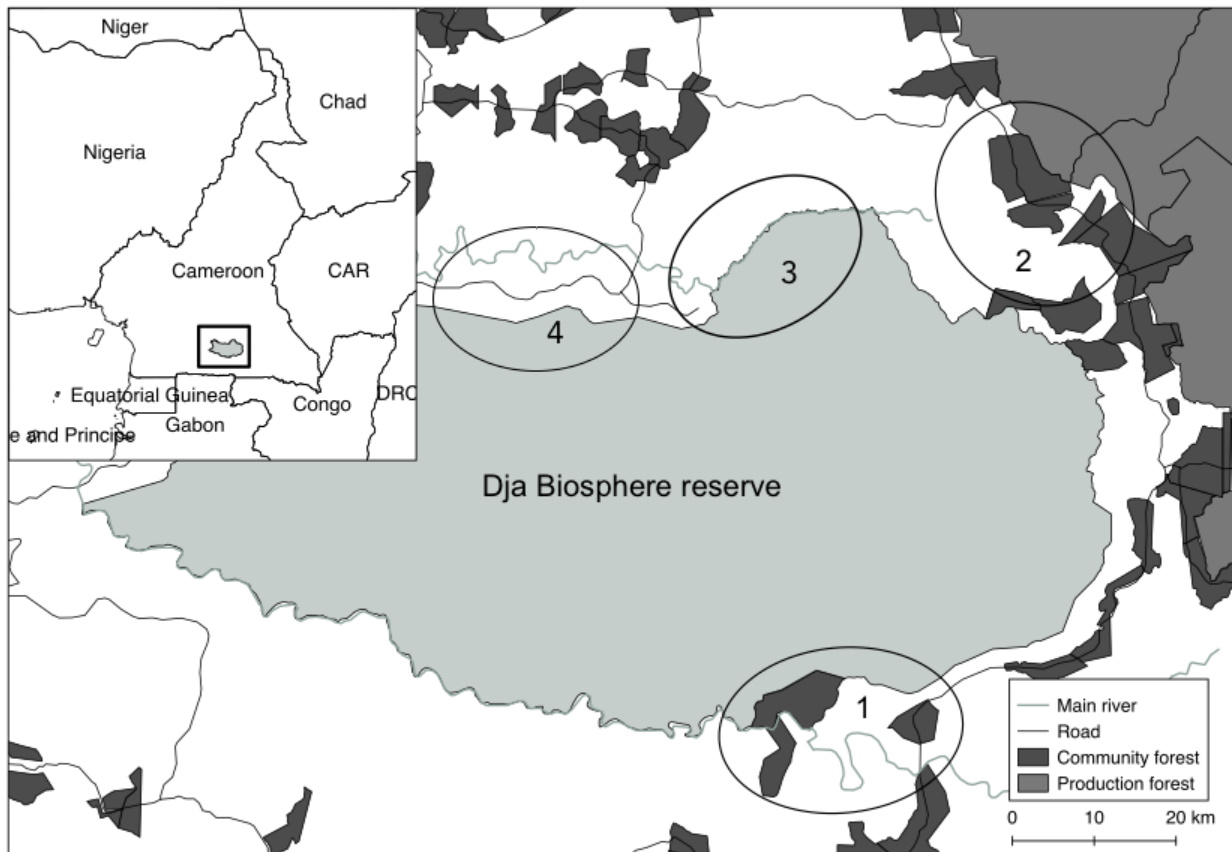
2   Project Partnerships

This project was a collaboration between three UK based organisations – the International Institute for Environment and Development (IIED), Oxford University, The Conservation Foundation (TCF, which incorporates Living Earth) – and one Cameroon based organisation, Fondation Camerounaise de la Terre Vivante (FCTV). IIED manages the project, Oxford University leads on field research, supported by FCTV and TCF, and TCF and FCTV lead on liaison with existing wild meat initiatives at DFR and on ensuring findings are mainstreamed into government strategies.

Over the course of the project, project partners participated in quarterly project meetings via Skype and/or Zoom to discuss project updates and plans, as well as additional calls on specific activities/tasks. There were four visits to Cameroon by staff from Oxford University and five visits by staff from TCF to collaborate with FCTV on fieldwork and hosting learning and reflection meetings with project stakeholders (ie communities, NGOs and government officials).

During year 3 (April 2020-March 2021) we strengthened the existing partnership by applying for a supplementary project in response to Covid-19, under the Darwin Rapid Response grant scheme. This enabled us to link with another research project led by Oxford University which is

intended to give a regional picture of the impacts of COVID on wild meat consumption in Central Africa.

Our advisory board (including Julia Fa, Marcus Rowcliffe and Yaa Ntiamoa-Baidu) participated in annual meetings with the project team offering advice and helping us to link to other relevant initiatives. For example, we connected to the FAO-WCS Sustainable Wildlife Management project (SWM) - a large, multi-country study looking at urban and rural wild meat consumption. Members of the SWM project partners provided constructive feedback on our decision-support tool.

COVID 19 presented a challenge to project partnerships and collaboration in the last 18 months of the project. It would have been particularly helpful to come together as a team in Cameroon or the UK to discuss and strategise efforts to promote the uptake of the decision support tool but obviously this was not possible. As with any partnership, not only is it important for morale to to be able to see colleagues, it's also helpful for discussions related to project opportunities and challenges, and to share skills, insights and feedback on the way that things are working/not working. Of course, we have tried to do this using online facilities such as Zoom, and while this proved useful, it was not a substitute for getting together in one room.

3   Project Achievements

3.1   Outputs

Output 1: Factors influencing use of wild meat as a food choice around Dja Biosphere Reserve and elsewhere in sub-Saharan Africa understood and documented

This output was achieved in full as the following summary of progress against indicators demonstrates:

- Indictor 1.1 refers to an evidence review of drivers of wild meat as a food choice across SSA which was published in year 2 of the project as a CBD Information Document.

- Indicator 1.2 refers to field work to understand local communities' perspectives on food choice at the DFR. This was completed in year 2 of the project and included 542 semi-structured interviews in 4 villages. Insights are reported in the publication 'Why eat wild meat? Local food choices, food security and desired design features of wild meat alternative projects in Cameroon'.

- Indicator 1.3 refers to sharing findings of the evidence review and field work with Cameroon and DFR policy makers and practitioners. FCTV held a meeting on 24 November 2020 in Lomie with 16 people who were representatives of local administration, communities where we undertook the research and local CSOs. A report is available in the supporting folder to Annex 7. FCTV held another meeting in Somalomo with similar stakeholders on the 2nd of December 2020   which was attended by 10 participants. A report is available in the supporting folder to Annex 7.

  The key messages shared with policy makers and practitioners, along with the dynamic atmosphere of the meetings was captured in a FCTV video provided in the folder that supports Annex 7.

  Prior to this work in year three, the team updated DFR and Cameroon policy makers and practitioners through informal telephone calls and emails, and in -person meetings and in year 1 of the project, our work was profiled on the BBC News Pidgin - https://www.bbc.com/pidgin/tori-48034874

- Indicator 1.4 refers to dissemination via an event at the CBD CoP 15. It was not possible to do this since CBD CoP was postponed to 2022 due to the pandemic. As an alternative, the team held a successful webinar via Zoom on August 4th 2021 (project year 4). The webinar featured seven speakers (Cedric Tibo, Stephanie Brittain, Dilys Roe, Julia Fa, EJ Milner-Gulland, Andrew Fowler and Jasmin Willis). In total, 133 people joined the webinar from 35 countries, and since publishing the webinar on YouTube we have

received a further 91 views for the unedited version of the webinar (no longer publicly available) and 141 views for an edited recording (https://www.youtube.com/watch?v=BAkL8KxRo-c). The webinar will continue to be promoted via IIED's You Tube channel.

- Indicator 1.5 refers to findings being disseminated internationally by the end of the project. In project year 4, Postdoctoral researcher Dr. Stephanie Brittain led the submission of a paper to a peer reviewed journal, with all the project team acting as co-authors – 'The drivers of wild meat consumption in rural Cameroon: Insights for wild meat alternative project design' (see Annex 7 for the paper abstract). This paper has been accepted pending some revisions and will be published as open access. Dr. Brittain also co-organised a symposium at the International Congress on Conservation Biology on the 16th of December 2021 on wild meat with the Wildlife Conservation Society (see Annex 7 for the event abstract), where she presented the results of the Why Eat Wild Meat research in a 10-minute pre-recorded presentation and a live 5-minute speed talk. The speed talk was followed by a lively discussion and the symposium was attended by 90 people.

Output 2: Characteristics of existing wild meat alternative projects in DFR and elsewhere, and the role of drivers of food choice in project success, analysed

This output was achieved as the summary of progress against indicators demonstrates:

- Indicator 2.1 refers to the evidence review of the factors affecting success of wild meat alternatives projects in Sub Saharan Africa, This was published as an IIED report in July 2020 (project year 3) ('Why Eat Wild Meat? Factors affecting the success of alternative protein projects'' - https://pubs.iied.org/14676iied).

- Indicator 2.2 refers to the inventory of wild meat alternatives projects around the DFR. An initial inventory was compiled in Year 2, documenting the details of 7 wild meat alternative projects that we identified around the DFR. FCTV updated this in year 3 to include activities implemented by OKANI, PGS, RAFALO, Alliance d'Adjela and TF-RD. The inventory is available in the folder supporting Annex 7.

- Indicator 2.3 refers to analyses of evidence review and inventory to discern success factors. We used our evidence review to discern success factors and produce a template for review - 'Why Eat Wild Meat: Cross-checking of success factors in existing wild meat alternative projects'. This template is available in the supporting folder of Annex 7. Unfortunately, we found few projects in the inventory were willing to critically engage with FCTV and TCF to review their existing or past projects. We discuss the barriers to collaboration in Cameroon in the assumptions and lesson learning section of this report.

- Indicator 2.4 refers to field work to explore wild meat-alternative intervention preferences of 4 local communities around DFR. This was completed in year 2 of the project and included 177 interviews in 4 villages. Insights are reported in 'Why eat wild meat? Local food choices, food security and desired design features of wild meat alternative projects in Cameroon'.

- Indicator 2.5 refers to the findings from field work being discussed with Cameroon and DFR policy makers and conservation practitioners. FCTV and TCF held a meeting in Yaoundé with 14 representatives of NGOs on the 15th July 2021 to share project results and share the decision support tool. A report of the event is available in Annex 7. FCTV also developed a video for informing policy makers and conservation practitioners about the project. The 10 minute video is available in Annex 7.

- Indicator 2.6 and 2.7 refer to sharing the project findings internationally. COVID19 has limited any in person dissemination and as already noted above (in reporting on output 1) as one alternative in 2021 (project year 4) the team held a successful webinar as discussed under Output 1. A second paper – "Predicting household responses to wild meat alternative projects using scenario-based interviews" is also now under peer review (see Annex 7 for abstract) and the results of this paper were shared during the ICCB

symposium (see output 1.5 above). The paper will be published as open access. Additionally, Dr. Stephanie Brittain shared the results from the project with the Oxford Biodiversity Society in March 2020, attended by 35 people (see Annex 7 for slides). Further, we have published five blogs:

i.   May 2019 - '[Wild meat: is there an appetite for alternatives](#)', which has 509 unique views.

ii.   April 2020 - [The Covid-19 response and wild meat: a call for local context](#), which has 70 unique views.

iii.   July 2020 - '[Exploring why people eat wild meat and designing better alternatives](#)', which has 547 unique views.

iv.   November 2020 – [How is Covid-19 affecting wild meat consumption in rural Cameroon?](#) , which has 1029 unique views.

v.   August 2021 - Research to Action Blog, August 2021 – [Why Eat Wild Meat? A new decision tool for better project design](#). (We do not have access to the audience engagement data since this was published on a third party website).

We have four more blogs planned in 2022 – the sixth blog of this project will promote the policy brief messages (related to output 4), for which we have a draft (provided in the supporting folder associated Annex 7) and will be published in January 2022. The seventh blog will reflect on partner use of the decision support tool, delaying the publication of this blog gives us chance to get case studies from some of those organisations using the tool when project activities resume (see output 3 indicator 3.1, and output 4 indicator 4.3). We expect to publish this blog in May 2022. We will also publish two blogs promoting the open access journal articles once these papers are available online (Spring 2022), and we have attached draft outlines to Annex 7.

Output 3: Enhancements to existing wild meat-alternative projects and a new proposal, agreed with villagers and implementers at DFR case study sites

This output was achieved as the progress against indicators demonstrates:

- Indicator 3.1 refers to the improved design of 3 existing projects based on use of the decision support tool.

1.   Project 1: A separate Darwin project (24-005) implemented by TCF has gained insights from our project, in that the project developers have a greater understanding of the factors influencing local choice of 'alternatives to bushmeat hunting for protein'. These insights helped considerably in documenting and disseminating the lessons learned from project 24-005 (which concluded in March 2021), by offering explanations for what did, and didn't work when introducing alternatives to bushmeat hunting for protein. The team are planning a follow on project at the site using the decision support tool to design wild meat alternative interventions – see the full statement of how TCF are using the decision support tool in the supporting folder to Annex 7.

2.   Project 2: FCTV are using the decision support tool in their capacity building work with local NGOs as part of the UNDP Campo Ma'am project. See FCTV's statement of how they are using the decision support tool in Annex 7.

3.   Project 3: Dr. C.H.Owen, a technical advisor to the Governor, Forestry Management and Climate Change has provided a statement of intent to use the decision support tool in Ise-Ekiti Forest Reserve, Nigeria when activities resume in 2022. The statement of intent is provided in Annex 7.

- Indicator 3.2 refers to project implementers acting within the DFR reporting improved understanding of the drivers and barriers to successful bushmeat-alternative projects. FCTV and TCF led a workshop with 14 conservation NGOs in Yaoundé at the end of July 2021. A workshop report is included in the supporting folder for Annex 7. At this workshop, a questionnaire was disbursed and FCTV subsequently emailed and telephoned the 14 organisations.

Seven organisations around DFR have confirmed an interest in the uptake of the decision support tool to improve the effectiveness of their wild meat alternative projects. See Annex 7 for a list of contact details of these project representatives and feedback (please do not include this information in the published final report for data protection reasons).

None of these organisations had the time to respond to the questionnaire. In hindsight, we recognise this questionnaire was too extensive and should have been shortened and focused to encourage participation. We reflect more on this in the M&E section of this report.

Output 4: Capacity to design and implement improved "wild meat alternative" interventions improved elsewhere in Cameroon and internationally.

Achievement of this output has been affected by COVID 19, and while the output has largely been achieved, we have had to make some adjustments (see indicator 4.3).

- Indicator 4.1 refers to policy recommendations developed and discussed with the Cameroonian government. We have developed a briefing and on reflection we felt that the messages were relevant to three audiences – national & international policy makers, donors and conservation practitioners. This briefing will be published online in January 2022 and a draft is available in Annex 7 along with a draft blog for publicising the briefing.

- Indicator 4.2 refers to the decision support tool being designed and tested. Version 2 of the decision support tool is available in English (https://pubs.iied.org/17661iied) and French (https://pubs.iied.org/fr/17661Fiied). These versions build on feedback from our advisory board in March 2021 (see Annex 7) and the project team – including feedback received by FCTV from interactions with relevant stakeholders in Cameroon. In January 2022 we will also publish Portuguese and Spanish versions of the tool with an additional five case studies relevant to Latin America, developed with the support and input of our Advisory Committee member Julia Fa (CIFOR). These languages of the tool were not originally planned by the project team and represent a supplementary output which will boost the reach of the decision support tool to an audience in the Caribbean and Latin America. These versions are shared in the folder supporting Annex 7 and will be available online on the IIED website in January 2022.

- Indicator 4.3. refers to the decision support tool being disseminated to at least 100 conservation and/or development organisations and tested/validated for at least 20 projects. The English version of the decision support tool had had 555 downloads and the French version has had 142 downloads.

  Due to the COVID 19 pandemic, many projects we reached out to have paused their field activities. This means that it was not possible to work with 20 existing projects to test/validate the decision support tool during the life of the project. That said, the decision support tool will be continue to be made available in-country, as the local partners connect closely with other NGOs utilising alternative protein strategies

  We also strengthened our dissemination efforts for the decision support tool to compensate for the lack of in-person contact. This includes for example making the decision support tool available in more languages (as reported above). Additionally, we delivered presentations to project designers and implementers at USAID (slides in the supporting folder to Annex 7) and the GCRF-funded international TRADE Hub (https://tradehub.earth/), which includes organisations in 5 Central African countries. The slides are shared in Annex 7. During these presentations we discussed the decision support tool with 55 project designers and implementers. Following the USAID presentation, two attendees indicated that they will use the decision support tool in their future work (see Annex 7 supporting folder).

  We have received positive feedback on the tool from colleagues at WCS – including the following comments:

1.   "*Very well structured [guide] all stages are very useful and clear*"

2.   "*I can see this [guide] as being most useful for the many many small NGOs that typically implement these kinds of projects…*"

3.   "*I think it makes a series of normally quite daunting steps seem quite feasible*"

Additionally, a colleague from the Central African Bushmeat Action Group (CABAG) noted –

- *"it [the guide] will allow a logical reflection and as a consequent a better performance in terms of impact to reduces the threats to fauna"*

This feedback is in the supporting folder to Annex 7.

- Finally, indicator 4.4 refers to endorsement of the tool/recommendations by at least one international conservation policy process or large-scale programme. We have received two endorsement letters -

(1) The Director of the Central African Bushmeat Action Group, Francis Tarla, will use the decision support tool in the MENTOR-Bushmeat Fellowship project, which he coordinates. The practical guidance will be integrated into the training received by 2022's intake of 10 fellows from Gabon, The Republic of the Congo, the Democratic Republic of Congo and Equatorial Guinea. The fellows from Cameroon will receive a virtual training session from the project team to answer any questions relating to their practical application of the tool in their work. In the evidence folder associated with Annex 7 is a statement of endorsement: "*I reviewed the practical guidance and thought it was very comprehensive; all the five steps are vital to conservation practitioners working on wild meat alternatives development*". Additionally, there is email evidence (not for publishing online) showing colleagues planning dates in March 2022 for delivering the training.

(2) ZSL's Andrew Fowler – the Regional Lead for West and Central Africa - has provided a formal endorsement of the decision support tool which is shared in the folder supporting Annex 7. The endorsement letter highlights five key characteristics of the decision support tool that will help inform improved design of alternatives – including the following statement "*I see the tool has the potential to be the first in a series of further developments and collaborations and can be used well beyond the lifetime of this project.*" Andrew Fowler joined the team's webinar (reported under output 1 above) to share this endorsement.

3.2   Outcome

The anticipated project outcome was "Strengthened capacity of policy-makers and practitioners in Cameroon and Africa-wide to design and implement effective "wild meat-alternative" interventions that reflect drivers of food choice, conserve biodiversity and contribute to food security."

We have largely achieved our project outcome and we report below for each indicator our achievements and evidence. The key reason we cannot report fully achieving our project outcome is due to the Covid-19 pandemic. Over the last two years, many wild meat alternative projects have paused their activities or reduced the amount of contact they have with their project intervention villages. This significantly limited our ability to collaborate closely with project designers and implementers of wild meat alternative interventions to enhance their design and practice (indicators 0.2, 0.3 and 0.4). It has also limited our face time with policy-makers across SSA to influence their understanding through dialogue and debate (indicator 1). The impact of Covid 19 on the project is discussed also in section 8.

Please note:

For indicators 0.1 and 0.2 our reporting is not compared to the baseline which we generated at the beginning of the project. A limitation of our baseline (survey reported on here) is that we made the mistake of requesting respondents' contact details as an optional aspect of the survey – meaning that respondents did not need to give us their details to take part in the survey. This was helpful for receiving honest and open feedback – particularly critical feedback about our

framing of the issues around illegal, legal, sustainable, and unsustainable wild meat consumption. These were valuable insights for the project team. However, it did mean that we could not follow up directly with baseline survey respondents. Instead, we followed up with five key informants who could share insights following engagement with the outputs of this project. These key informants were project managers with experience across seven SSA countries (Botswana, Cameroon, Cape Verde, Democratic Republic of Congo, Gabon ,Republic of Congo, Uganda).

We might have hoped to reach out to more project implementers to ask them to reflect on their thoughts and understanding after reading the decision support tool. However, these plans were scuppered by COVID which limited our travel and interactions with project implementers across SSA (see more detail in section 8).

For indicator 0.3, we report on two projects around the DFR and one project from elsewhere in SSA. This is because it was not possible to work with a third project around DFR during the pandemic. We also did not want to duplicate reporting related to indicator 0.4.

- 0.1 Improved understanding by conservation policy-makers in sub-Saharan Africa of different drivers of wild meat as a food choice of local people, compared to baseline at start of project

  We reached out to two key informants through a survey monkey interview. Both interviewees recognised that a diversity of drivers including taste, familiarity and culture are important aspects of food choice of local people. The first respondent noted that the decision support tool helped to "confirm some of our experience".

- 0.2 Improved understanding by "wild meat-alternative" project designers in sub-Saharan Africa of characteristics of effective wild meat-alternative projects compared to baseline at start of project

  We reached out to three key informants through a survey monkey interview to understand their views on the characteristics of effective wild meat-alternative projects after reading the decision support tool (see supporting folder to Annex 7 for data from survey monkey). These respondents were project managers, one a manager of projects in Gabon, Democratic Republic of Congo, Republic of Congo, and Botswana, the second in Uganda and the third in Cape Verde. The first project manager noted that elements of the decision support tool were aligned with the approach they use and requested a follow up meeting to plan training on the decision support tool for their project teams in the four countries they support (see email in Annex 7). The second project manager noted that the decision support tool has been valuable for *'looking at communities and how to involve them'* in understanding food choice and wild meat project design. The third project manager noted that food choice is *not* an important driver to consider in wild meat project design, indicating that we still have some work to do to improve the understanding of project designers of factors to consider when designing effective wild meat projects.

- 0.3 Enhancements to the designs of three existing (or past) wild meat alternatives projects at DFR, by the end of the project, so that projects have the right conditions in place to a) improve food security and provide sustainable nutrition while also b) reducing exploitation of wild species.

  Project 1: A separate Darwin project (24-005) implemented by TCF has gained insights from this project. The full statement provided by TCF is in the supporting folder to Annex 7. It includes the following "*The impact of using the DST in project design and development has been considerable, in that we are confident that the vast majority of the factors that could influence success (or failure) of a project meeting its objectives have been identified, and these can be communicated to external audiences clearly.*"

  Project 2: FCTV are using the decision support tool in their capacity building as part of the UNDP Campo Ma'am project. In January 2020, FCTV will work with 10 representatives of civil society organisations from Campo Ma'an National Park. Read the training TOR/TDR from FCTV in the folder supporting Annex 7.

<u>Project 3:</u> Dr. C.H.Owen, a technical advisor to the Governor, Forestry Management and Climate Change has provided a statement of intent to use the decision support tool in Ise-Ekiti Forest Reserve, Nigeria when activities resume in 2022. The statement of intent – which is included in the folder supporting Annex 7 – notes "*We see great potential for the decision support tool to help staff discuss options for alternatives from the local perspective…*".

- 0.4 Receipt, uptake and commitments to use project-generated evidence and tools by at least 50% of existing wild meat-alternative project designers, funders and implementers in DFR (from inventory generated in output 2).

    FCTV and TCF arranged a workshop in Yaoundé on the 15th of July 2021 to discuss the decision support tool in depth. At this meeting 14 organisations confirmed receipt of version 2 of the decision support tool. FCTV also arranged a meeting at Somalomo and among the attendees were three conservation partners that confirmed receipt of version 2 of the decision support tool. So, in total, 17 conservation organisations confirmed direct receipt of the decision support tool from FCTV. This is more than the 14 organisations listed in the inventory (output 2) and includes additional organisations to those in the inventory reflecting the dynamic nature of projects ending and new projects beginning (as well as projects pausing activities during the pandemic). The meeting reports for Yaoundé and Somalomo are available in the supporting folder to Annex 7.

    Seven organisations that have projects which are either ongoing (4 organisations) or are writing proposals for further wild meat project support (3 organisations) around DFR have confirmed an interest in the uptake of the decision support tool. This includes the following organisations – CARFAD (Centre Africain de Recherches Forestières Appliquées et Développement), FCTV, Zoological Society London, PCP (Programme de Consolidation et de Pérennisation du conseil agropastoral), ACEFA Améliorer la compétitivité des exploitations agropastorales familiales) Centre, Padi-Dja (Programme d'Aménagement et de Développement Intégré), Centre pour L'Environnement et le Développement (CED) and the Ministry of Livestock, Fisheries and Animal Industries (MINEPIA). The CARFAD project representative noted "*It will be good if FCTV continue to coach us and explain more how we can integrate this in our proposals writing".*

One of our project assumptions was that "Implementers of existing and planned projects are prepared to engage with us to improve their projects and monitor outcomes." This assumption did not entirely hold true and affected the achievement of this outcome. A key issue was that some conservation NGOs while showing interest in the decision support tool did not make time for external facilitation (by FCTV and TCF) on how to specifically apply the tool to existing or proposed projects. FCTV and TCF feel that this is because these NGOs compete for funding and want to appear externally as 'experts'.

Monitoring of assumptions

Our assumptions were:

1. *International NGOs and policy-makers (e.g. ECOFAC, CBD) are responsive to findings and change their processes accordingly [our strong international networks and involvement of key players in Advisory group will help here].*

    Comment: This assumption has largely held true. We have had interest from ZSL, USAID, FAO, CIFOR – to name a few relevant international organisations - as well as regional stakeholders (eg MENTOR fellowships) and policy makers (eg Nigerian government). Requests for more information have included enquiries about the research findings at DFR and insights from the decision support tool.

    One factor that we had not anticipated was the Covid19 pandemic which impacted on our outreach strategy as many international, regional and national NGOs and policy makers

have paused activities, or diverted resources to other efforts. This has somewhat compromised our assumption that there will be a 'change in their processes'. For example, we have not been able to fully achieve output 4 (particularly indicator 4.4).

2. Feasible and effective wild meat alternatives exist, that can divert enough consumption from wild meat to reduce hunting pressure [In the long run, food systems need to reflect changing environmental, social & economic realities. In the short-medium term there is potential for e.g. aquaculture, wild-caught fisheries, mini-livestock]

   Comment: This assumption appears to hold true. Our research found that wild-caught fish was an acceptable alternative to wild-caught meat where it is accessible (i.e. for those villagers located close to rivers), although only available seasonally. Fishponds managed by individual households in the communities would provide fish all year round, and were found to be a preferred alternative. This leads us to believe that aquaculture projects could also be successful. Evidence for this is in the research report - 'Why eat wild meat? Local food choices, food security and desired design features of wild meat alternative projects in Cameroon'.

3. Better-designed "wild meat-alternative" projects will lead to reduced hunting and reduced threats to wildlife (because rural consumption is a major threat) [Our experience in DFR and elsewhere suggests rural consumption is a threat; detailed research by J Wright suggests design improvements are feasible and could be effective]

   Comment: The assumption appears to hold true. Our research has found that if designed properly, protein alternative projects could reduce dependence on hunting and consumption compared to the current rate. Evidence in the research report that hunting and consumption of wild meat is over twenty times more likely to reduce if people participate in a fishpond project, compared to if they do not participate in any alternative projects. Research report - 'Why eat wild meat? Local food choices, food security and desired design features of wild meat alternative projects in Cameroon'.

4. Local people are willing to take part in surveys and engage with research team [the team has very good relationships with local people in areas around the DFR and have worked with them for a number of years]

   Comment: This assumption holds true. Participants have been very receptive to the research and we have been able to gather all the field data with no issues – including mini-surveys carried out to detect the impact of Covid19.

5. Creation of decision support tool is feasible based on information collected, and evidence from DFR will be generalisable [we expect the evidence internationally to be weak; our new evidence-base for DFR will be locally relevant and our expectation based on previous work is that broad general lessons will emerge].

   Comment: This assumption holds true. A decision support tool has been designed based on the research findings and the evidence collected – and we have received positive feedback about this tool (see supporting folder to Annex 7). The tool has also been translated to Spanish and Portuguese.

6. Cameroon government remains supportive of the project and responsive to research findings
   Comment: Officials from MINFOF and in particular, colleagues from the Department of Wildlife and Protected Areas (DFAP), remained supportive of the project, though our ability to engage with them was affected by COVID19. FCTV and TCF met with colleagues from DFAP in July 2021 and shared the decision support tool – our colleagues at the department were interested in hearing more about the decision support tool and how it could be used to help engage local people in decision making around wild meat alternative projects.

We have many output-level assumptions so do not reproduce and comment on them all here but all are available in the updated logframe and many overlap with our outcome assumptions. For example– as per the outcome assumptions - these relate to the communities and DFR being supportive of the project, government officials remaining supportive, and uptake by others. Two assumptions that differ in their nature and which we therefore discuss in this section are:

- Implementers of existing and planned projects are prepared to engage with us to improve their projects and monitor outcomes.

    Comment: This assumption did not hold true in Cameroon. Here, we found that many wildlife conservation NGOs were reluctant to critically engage on their project design processes with conservation organisations that they viewed as their competitors. This affected their willingness to work with FCTV and TCF on using the decision support tool. While, NGOs showed interest in learning and attended meetings on the tool with FCTV and TCF, they did not make time for external facilitation (by FCTV and TCF) to apply to the tool to an existing or planned projects. FCTV and TCF feel that this is because these NGOs compete for funding and want to appear externally as 'experts' in wildlife conservation projects, and notably stress their own achievements. The project leader Francesca Booker has received similar reflections from partners involved in another project she leads in Cameroon. We have added this reflection to lesson learning to flag this issue to other Darwin projects in the future.

- "Bushmeat-alternative" projects continue to be developed by other actors

    Comment: This assumption did not hold true due to the impact of the COVI19 pandemic. During the pandemic we have found that many field activities have paused for safety. However, as field activities resume we anticipate a renewed interest in wild meat alternative projects, especially as stakeholders hypothesise about the link between the hunting and trade of wild species and the pandemic, and pursue strategies (such as wild meat alternative projects) to prevent another pandemic. IIED, Oxford University and FCTV will all use the decision support tool in efforts beyond this project including work with the Nigerian government, the UNDP Campo Ma'am Project, ZSL and the MENTOR Bushmeat fellowship programme (see section on outputs for evidence). We anticipate more opportunities arising to apply the decision support tool

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

The anticipated impact of this project was that "Improved 'wild meat-alternative' projects in Cameroon and Africa-wide result in reduced exploitation of wild species and increased food security, contributing to achievement of SDGs while meeting CBD and CITES obligations."

Despite the challenges associated with COVID 19 and with our M&E strategy, discussed elsewhere in this report, our project has made a contribution to this longer-term impact. It is not possible to quantitatively measure our impact but our evidence suggests that the project has provided rich results from fieldwork around DFR highlighting interesting differences in the drivers of food choice between and within communities (particularly on the factors affecting food avoidance). We have used these results and our experience capturing this information to design a decision support tool to help project designers and implementers improve the effectiveness of wild meat alternative projects – both for their food security and biodiversity conservation goals. We have good indications from key respondents that the decision support tool is useful and will influence the design of future projects and that this in turn will result in improved biodiversity and livelihood outcomes.

Our decision support tool has been very well received both nationally and internationally, and we will continue to promote it. For example, as we come out of the pandemic and wild meat alternative projects resume, we will disseminate the tool through our networks so that project implementers are able to use it. As our papers get published and further decision support tool translations are available online, we will use these moments as communication opportunities and we will be available to provide guidance to anyone who would like to use it in DFR, Cameroon and internationally. The decision support tool's influence is likely to be a slow-burn but our

ongoing involvement in the DFR and in the wild meat alternatives community will give us many future opportunities to enhance our impact.

In addition, there are 3 projects that are either using or will use the decision support tool in their wild meat alternative projects (a follow-on Darwin project, the UNDP Campo Ma'am project and a project in Nigeria), and a further seven organisations around the DFR will use the decision support tool with FCTV's guidance. As Covid 19 has paused much fieldwork, we cannot yet report the overall impact of applying the decision support tool on food security and biodiversity conservation. Instead, in this the outputs and outcomes section of this report we have noted feedback from colleagues on what they see as the value of the decision support tool to their projects.

Furthermore, we have contributed directly to the body of knowledge and evidence available to Parties to the CBD where the sustainability of the wild meat sector is a key policy interest. Section 4 below provides evidence of longer-term contributions to SDGs and biodiversity conventions.

4 Contribution to Darwin Initiative Programme Objectives

4.1 Contribution to Global Goals for Sustainable Development (SDGs)

In our proposal we flagged the following SDGs as being most relevant to this project:

- SDG 2 which includes Target 2.1 to end hunger by 2030 and ensure access by all people to safe, nutritious and sufficient food all year round.
- SDG 12 which includes Target 12.2 to achieve sustainable management and efficient use of natural resources.
- SDG 15 which includes Target 15.5 to take urgent and significant action to reduce degradation of natural habitat, halt the loss of biodiversity, and by 2020 protect and prevent the extinction of threatened species.

Our work has focussed on the development of a decision support tool which will lead to the design of better wild meat alternative projects, which in turn will contribute to Target 2.1 and ensuring that newly introduced alternative proteins address issues of hunger – for example by providing access to a protein source that is viewed by local communities as culturally acceptable, nutritious and healthy, tasty and an affordable alternative to harvesting wild meat. We will contribute to SDG targets 12.2 and 15.5 by ensuring that wild meat alternatives projects are more acceptable to local communities and thus more likely to be adopted, thereby reducing hunting pressure on forest-based wildlife and specifically on threatened species such as pangolins which featured in our field research as a highly prized source of wild meat for local communities (despite it being illegal to hunt this species in Cameroon).

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

In our proposal we anticipated our project mainly contributing to the CBD. In the first two years of the project the CBD agenda included a strong focus on wild meat in the context of sustainable wildlife management. Our project was able to contribute directly to the discussions on this issue including through submission of our evidence review on the drivers of wild meat as a food choice to the SBSTTA meeting. Additionally, in year 2 of the project, Stephanie Brittain and Dilys Roe participated in a 2-day Collaborative Partnership on Sustainable Wildlife Management (CPW) indicators workshop on "Wildlife harvest, use and trade target indicators for the CBD post-2020 Global Biodiversity Framework". The workshop report was shared with the CBD secretariat and the CPW intend to follow-up on the workshop outputs, along with the expert group that the workshop convened to provide further suggestions on indicators for the CBD Targets.

4.3 Project support to poverty alleviation

Our project has supported poverty alleviation by providing evidence and tools that can contribute to higher levels of food and nutritional security for rural populations. We focussed on the reasons for wild meat consumption (specifically highlighting the diversity of reasons to improve understanding) and used this information to inform the better design of wild meat alternative

projects. The beneficiaries of wild meat alternatives projects are the rural poor that are dependent on wild-caught meat for their protein source, as well as trading for income.

Our field research reached out to 542 people from 177 rural households living around DFR to understand what factors affect their choice of food stuffs and their perspectives on what they would like to see from a wild meat alternatives project. This informed the design of our decision support tool for wild meat alternatives projects. Three projects have begun working with the decision support tool – 1) a follow up proposal to Darwin project 24-004 which anticipates having up to 3,000 beneficiaries in the northern buffer zone of DFR, 2) support to 10 civil society organisations as part of the UNDP Campo Ma'am project, who in turn serve their communities, and 3) a project in the Ise-Ekiti Forest Reserve (Nigeria) where the lessons and approaches set out in the Why Eat Wild Meat guidance will be applied to help develop locally relevant livelihood and wild meat alternatives.

In addition, 7 organisations that have projects which are either ongoing or are writing proposals for further wild meat projects around the DFR. While we do not know the scale of beneficiaries for each project, we anticipate that our tool has the potential to improve projects and benefit over 1000 people even if it is only adopted by just 3 of the projects. This figure is informed by our experience with wild meat alternative projects.

The Covid-19 pandemic resulted in a series of well-publicised calls to ban consumption and trade in wild meat. This would have serious negative implications for poor, rural people across SSA. The findings of our project are being used to counter such calls. We have already started to try to do this through opinion pieces, one example being an article in Nature (https://www.nature.com/articles/s41893-020-00676-1) which cites our evidence review in making the case for not banning wild meat consumption.

4.4 Gender equality

Our research has consistently sought to include equal representation from women and men. In our fieldwork from a total of 524 interviews across 4 villages, 49% of respondents were female. We were also careful to ensure we sampled women and men from different age ranges – 53% of respondents were aged 16-35, 29% 36-55 and 18% were 56 years old or over. In addition, we convened female-only focus groups with a total of 13 women over 4 workshops, to gather the perspectives of women and better understand the drivers of food choice and barriers to their participation in alternative projects.

In our analysis of the fieldwork results, we explored differences between genders (as well as other socio-economic variables including age, wealth and ethnicity) in food choice and intervention type. While gender was not a predictor of species preference, it was a predictor of species avoidance, an important result when designing alternatives projects. This is important because, historically, such projects better reflect the needs and desires of men. Our results and the process we followed to gather evidence on gendered differences can act as a model for future wild meat alternatives intervention design, allowing them to cater to the needs of both women and men. Evidence for these findings is here: https://pubs.iied.org/20176iied). The decision support tool also stresses the need to explore differences between stakeholders (including men, women, youth, marginalised groups) in terms of wild meat consumption patterns and preferences.

At meetings/workshops in Cameroon, FCTV and TCF have paid attention to the gender composition of participants. For example, at the workshop in Yaoundé 5 of the 13 participants were female project managers (see workshop report for list of participants in supporting folder to Annex 7).

4.5 Programme indicators

- Did the project lead to greater representation of local poor people in management structures of biodiversity? NA

- Were any management plans for biodiversity developed and were these formally accepted? NA

- Were they participatory in nature or were they 'top-down'? How well represented are the local poor including women, in any proposed management structures? NA

- How did the project positively influence household (HH) income and how many HHs saw an increase? NA

- How much did their HH income increase (e.g. x% above baseline, x% above national average)? How was this measured?

The focus of our project is to understand the drivers of choice for wild meat consumption and use this information to refine wild meat alternative projects. As such the project did not focus on increasing household income. However, it is worth noting that we expect that improved access to animal protein through wild meat alternative projects will affect household beneficiaries' income. Darwin project 24-004 found that increased access to animal protein led to increased trading and subsequently higher household GDP income in poor households, assisting the drive towards poverty alleviation.

4.6 Transfer of knowledge

Soreya Djibrila Ngomna Tsabong, a Cameroonian research assistant on the Why Eat Wild Meat project, was enrolled on a PhD programme at the Universite de Ngaoudere in Cameroon, in the school of Sciences and Vetenary Medicine. Soreya based part of her PhD research on the outcomes of the Why Eat Wild Meat field research. Her research focussed on the possible health concerns surrounding the consumption of wild meat and other foods. She successfully defended her thesis, entitled "Etude des habitudes de consummations des proteins animals des populations de la reserve de biosphere du Dja", in 2019.

4.7 Capacity building

As part of the Why Eat Wild Meat project, early career Cameroonian researcher Cedric Tibo Kamagne (project field researcher) had the opportunity to hold meetings to present the project and its results in the Eastern Region (1 meeting in Lomié and 1 meeting in Somalomo) and Central Region (2 meetings in Yaoundé). During these meetings, various stakeholders participated with whom he has developed and maintained professional relationships, including: administrative authorities, members of civil society, staff from MINFOF, traditional authorities in addition to other local and indigenous people representatives, members of various local and international organizations, and private sector actors. The project also allowed Tibo to participate in various expert panels such as two sessions of the Dja actors forum (1 session in Dioum and 1 session in Messamena), and a consultation meeting organized by the MINFOF in Bertoua.

Cedric Tibo Kamagne also led the fieldwork for our additional COVID19 Rapid Response project, enabling him to get to know a new group of international researchers working on the GCRF TRADE hub project. He is first author on a paper about this work to appear in the African Journal of Ecology, and wrote an IIED blog about the work (https://www.iied.org/how-covid-19-affecting-wild-meat-consumption-rural-cameroon). All this allowed him to access different conservation stakeholders in Cameroon and internationally, and to develop his professional network.

Through knowledge, skills and experience gained in research and wild meat-related issues, as well as the professional network he developed, this project was also a stepping stone in Tibo's professional career, opening the doors to his current work as a researcher at CIFOR (Center for International Forestry Research) and future opportunities (including being shortlisted for a Leventis African Biodiversity Fellowship at the University of Oxford - interviews to be held in February 2022).

5   Sustainability and Legacy

Our exit strategy detailed in the proposal remains the same. This includes:

- FCTV and TCF are committed to ongoing work in the Dja region. In particular, FCTV/TCF commit to working with project implementers and funders to bring to reality the wild meat-alternative project enhancements and proposals desired by local people e.g. through the established Dja Actors' Forum.
- All the outputs of the project will remain available to download from the IIED website beyond the life of the project, and will continue to be promoted regularly by all partners.
- All project partners will continue to engage with national and international wild meat-related processes and actions, ensuring that both locally and internationally our findings will be taken on board, and built upon.

In our annual report for year 3, the reviewer asked for us to elaborate a capacity building exit strategy. In addition to our capacity-building work for Cedric Tibo Kamagne, this includes:

- Stephanie Brittain will deliver training to 10 African fellows of the MENTOR-Bushmeat Fellowship (see previous narrative related to output 4, indicator 4.4).
- Stephanie Brittain will promote the decision support tool and training opportunities through the Conservation Social Science Partnership, an international partnership of conservation NGOs and academics that sim to address critical gaps in social science capacities of conservation NGOs.
- Stephanie Brittain will support staff of the Ise Ekiti Forest Reserve Nigeria to help them apply the decision support tool during the development of a wild meat alternative project.
- Dilys Roe will promote the decision support tool and training opportunities through her membership of the Collaborative Wildlife Partnership chaired by the FAO - https://www.fao.org/forestry/wildlife-partnership/en/, and as Chair of IUCN SULi - https://iucnsuli.org/
- Mama Mouamfon will continue to deliver training to 10 representatives of civil society organisations through the UNDP Campo Ma'am project around the DFR.

In addition, we have four blogs planned up to spring 2022 to continue promoting the decision support tool and opportunities to engage with IIED, Oxford University, FCTV and TCF for further training. Additionally, we expect that publishing the decision support tool in Portuguese and Spanish will open up new opportunities for capacity building in other regions of the world.

While this project has ended, the team's interest in promoting effective wild meat alternative projects does not end here. We continue to engage our expertise in this area and will build from the understanding and guidance we have generated in this project.

6   Lessons learned

A key lesson for other projects supported by Darwin is that virtual meetings (held via zoom or teams for example) are valuable ways to connect but are no substitute for face-face meetings, particularly when internet connections are poor and language abilities vary. This was an issue for our ability to work effectively between the UK and Cameroon (mitigated by ongoing, but less regular, in-person visits by project team members). This lesson is particularly relevant as the pandemic continues to affect ways of working for international conservation teams. We feel that our ability to collaborate, respond proactively to opportunities and challenges and re-affirm our positive relationships internally and externally were hampered by not being able all to meet in person in the UK or Cameroon.

Our assumption that personnel from NGOs in Cameroon would openly share details of their existing and planned/proposed wild meat projects for critical review and refinement did not hold true. A key lesson is that it was hard to overcome the competition and mistrust between NGOs – an issue that has become commonplace amongst conservation organisations in Cameroon. In hindsight, a different way to approach this project would have been to include key project personnel from other NGOs as formal project partners in this Darwin project, with FCTV playing an important convening role in Cameroon. This wouldn't necessarily have implied a large scale-up of funding, as we would have built on existing projects and resources. Doing this would

probably have gone a long way to creating a space/platform for more formal collaboration that may have contributed to better relationships and collaboration beyond the timeline of our project.

An aspect of our efforts that worked well was collaborating to re-package the evidence generated in this project to respond to international and potentially damaging calls for wild meat consumption bans due to the Covid 19 pandemic (see details below). This was a strength of the types of partnerships that came together in this project – including academics at Oxford University, an early career researcher and project manager in Cameroon, and research and policy specialists at IIED and TCF.

We also successfully applied for Rapid Response Darwin funding to explore the effects of COVID19 and associated responses on local communities and wild meat hunting in the Dja reserve, and Cameroon more broadly, using fieldwork at DFR and mobile phone surveys country-wide, and building on the work done in this project. This additional work expanded our understanding of the role of wild meat in local and national economies and consumption, broadened our collaborative networks, built local capacity, and will produce valuable insights into how to support local communities and wild meat consumers/sellers to "build back better" (and more sustainably) post-pandemic. The results will be published soon.

Both these responses to COVID-19 are reflections of the team's proactive approach to monitoring international policy developments and analysing where our research evidence and project experiences can make valuable contributions.

Finally, although COVID19 did damage our international team's ability to work together on the ground, it did require our in-country team to step into the breach. In particular, our FCTV researcher (Cedric Tibo Kamagne) had to take on a lot more leadership than might have otherwise been expected. This led to career development opportunities that might otherwise have not been available.

6.1 Monitoring and evaluation

Changes to the project logframe

The team submitted a change request in June 2020 that was approved and included the following changes to the project's logframe.

Outcome Measurable Indicators

Indicator 0.3

Original: Enhancements to two wild meat alternative projects at DFR, and a proposal for another, by the end of the project, so that projects have the right conditions in place to a) improve food security and provide sustainable nutrition while also b) reducing exploitation of wild species.

Rephrase: Enhancements to the design of three existing (or past) wild meat alternative projects at DFR, and a proposal for another, by the end of the project, so that projects have the right conditions in place to a) improve food security and provide sustainable nutrition while also b) reducing exploitation of wild species.

Output 3 Measurable Indicators

Indicator 3.1

Original: Improved design of at least one new or existing wild meat-alternative project in each of three sites around DFR agreed with local communities and implementers by end of project.

*Rephrase***:** Recommendations for the improved design of 3 existing (or past) wild meat-alternative projects around DRF building on experience from implementing the decision support tool (facilitated by the project team in partnership with conservation NGOs working around DFR)

Indicator 3.2

Original: At least 50% of project implementers acting within the DFR report improved understanding of the drivers and barriers to successful wild meat-alternative projects, resulting in improved implementation effectiveness by end of project.

Rephrase: At least 50% of project implementers acting within the DFR report improved understanding of the drivers and barriers to successful wild meat-alternative projects~~, resulting in improved implementation effectiveness by end of project.~~

Indicator 3.3

Original: At least 50% of households in case study communities report increased engagement with wild meat-alternative projects in their area by end of the project.

Remove: We will no longer be able to carry out the end project survey of villages, so we regret that we need to remove this measurable indicator and the associated activity.

Output 3 &4 Activities

Activity 3.1
Original: Work with villagers and project implementers in 3 sites to improve existing projects based on findings (Mindourou, Northern buckle) or design new project for future fundraising (LEL/FTCV & Oxford)

Rephrase: Share insights with villagers and project implementers in 3 sites on ways to improve existing wild meat alternative projects based on findings (Mindourou, Northern buckle)~~ or design new project for future fundraising (LEL/FTCV & Oxford)~~

Activity 3.3

Original: End of project survey of villagers in 3 case study sites to assess engagement with, and perceived effectiveness of, wild meat-alternative projects or proposals (FCTV/LEL & Oxford)

Remove: We can no longer support this activity so we will remove this project activity.

Activity 4.4

Original: Presentation of tool (and experience from case study sites including new project designs) to other project implementers via the Dja Actors Forum & PCLG (FCTV/LEL)

Rephrase: Presentation of tool (and experience from case study sites ~~including new project designs~~) to other project implementers via the Dja Actors Forum & PCLG (FCTV/LEL)

M&E Strategy

Our M&E strategy included five steps. We have reflected on each of these steps in turn:

1.   Six monthly team progress calls – alternating in person and virtual

As reflected elsewhere in this report (see lesson learning section), in years 2, 3 and 4 of the project while virtual meetings were helpful, we feel more constructive progress could have been made with in person meetings. In particular, it was extremely hard to secure reliable connections virtually with our Cameroonian colleagues resulting in limited participation by them in most of our meetings. This did impact on our monitoring, evaluation and learning process. The team feels that we could have gone into more depth about the challenges and problem solved more effectively with in person meetings,

2.   Project advisory group of experts

The project advisory group of exerts were invaluable to our project M&E - through reviewing our project plans and reports and ongoing engagement and advice. They also supported us with networking and dissemination and helped us to engage with ongoing international processes and large-scale initiatives.

3.   Project baselines survey and monitoring/measurable indicators

Our project monitoring/measurable indicators proved useful for oversight of our project activities, outputs and outcomes. However, we did experience challenges with the selected means of

verification for our outcome indicators 0.1 and 0.2. We intended to undertake before and after surveys to measure progress against these outcomes. The baseline surveys were completed pre-COVID at the start of the project and received good participation with 65 respondents and 39 respondents to each of the two surveys. The surveys were undertaken online using survey monkey and promoted via an IIED blog. However, a repeat of these surveys at the end of the project failed to gather the same amount of interest. One difficulty experienced was that with COVID 19 many projects moved their activities online and so it was very hard to compete for attention and participation. In addition, as reported earlier in this document we made the mistake in the baseline survey to allow respondents to optionally provide their details, this meant we couldn't follow up directly with the same people three years on.

In Cameroon, we additionally intended to undertake a before and after survey. The second survey remains incomplete by the 14 organisations we distributed it to. FCTV and TCF feel that the questionnaire – which included 30 questions – was too extensive and should have been focused on five to ten questions maximum. This affected monitoring and reporting on output 3, indicator   3.2.

4.   Project ethics monitoring

All our research and project activities adhered to comprehensive internal ethics guidance from Oxford University and IIED. We submitted ethics approval to IIED three times during the project to ensure that we were effectively monitoring ethical risks and data management issues carefully, and this was particularly valuable for assessing the risk of project activities following the emergence of COVID 19. See the section on COVID 19 for more discussion.

6.2   Actions taken in response to annual report reviews

In our annual report three, the reviewed made three remarks. We deal with each in turn:

1. "It is recommended that the project develop an elaborate capacity building exit strategy for the promotion of the decision support tool on wild meat alternative projects"

This was a welcome and constructive suggestion. We have responded directly to this in section 5 'Sustainability and Legacy'.

2. It is not clear how the project will deliver pending activities in the remaining period in order to achieve the envisaged Outcome. Critically consider whether this is possible and consider making a request for an extension if appropriate.

Again, this was a constructive suggestion, and the team submitted a change request for a 6 month project extension that was approved.

3. Please clarify who was leading the project

We appreciate that this was not clear in our annual report for year 3. The project leader was Francesca Booker (this was confirmed in a change request submitted in January 2020, see email confirming this from LTSI in the supporting folder to Annex 7) up to September 2020 when Francesca went on maternity leave. During Francesca's maternity leave, Dilys Roe led the project and this covered the period of September 2020 to August 2021. Francesca returned to work at the end of August 2020 in time to lead any final project activities and project reporting (end of August 2021-September 2021).

There are no other outstanding issues from previous annual reports.

7   Darwin identity

We have used the Darwin identity on all project outputs. This includes use of the logo on published project outputs, website, presentations etc, and acknowledgement of Darwin on outputs where a logo is not possible (eg journal articles). We also routinely use Twitter and tag the Darwin twitter handle when promoting project activities or outputs.

8 Impact of COVID-19 on project delivery

COVID 19 presented significant challenges to the project. The first challenge was that it stalled field activities in Cameroon at the end of year 2 and this continued into year 3 of the project. While some activities did resume in Cameroon in year 3 of our project, the team in Cameroon (FCTV) had to take a very cautious approach with much more logistical challenges and time needed for planning and travelling than previously. FCTV and IIED worked together to define safeguards for reducing COVID 19 exposure risk to the project participants and FCTV colleagues. These safeguards were approved by IIED's Ethics Committee and included:

i. Project staff will wear a face mask in the car travelling to and from villages
ii. Only two staff members will travel in the car (the driver and the research facilitator)
iii. The research team will take hand sanitiser, soap and water to the villages for their own personal use.
iv. Interviews to be undertaken with no more than one person.
v. Interviews to be undertaken away from the public eye, to avoid a crowd forming.
vi. Interviewee's age to be considered – people over 60 not to be included in the interview sample.
vii. Interviews to be undertaken outside.
viii. Interviewer and interviewee to sit 1-2 metres away from one another.
ix. Interviewer to wear a mask and provide the interviewee with a mask
x. Interviewer to provide sanitiser or soap to the interviewee for use immediately before and after the interview.
xi. Interviewer to provide advice on sanitation and COVID 19 prevention (FCTV have existing advice and posters from a partner project).
xii. Interviewer will take the names of interviewees and addresses and if possible phone numbers, so if the FCTV interviewer becomes ill with suspected COVID in the 14 days following the interviews we can warn interviewees. This can be undertaken by the FCTV community liaison officer, or other FCTV partners based close to the northern buckle. The government will also be informed. This will be done to the best of our ability, noting possible logistical constraints of operating in Cameroon.
xiii. Where possible (ie there is phone signal), the research coordinator will make appointments with NGO project leaders so that they can prepare a safe meeting place at their premises

We submitted a change request in June 2020 to extend the project by 6 months to account for COVID 19 related delays as well as maternity leave for our PI (Francesca Booker) and for our Project Researcher (Stephanie Brittain). In this request we made changes to our log frame in light of the impact of Covid 19. These changes are detailed in section 6.1 of this report and are not repeated here. The changes to our log frame were informed by a risk assessment the team undertook (findings in the supporting folder of Annex 7).

Another important challenge due to COVID 19 was that our partner in Cameroon, FCTV, found that they had to do a lot more of the work with remote support from TCF, IIED and Oxford University due to travel restrictions. This understandably meant that our research and project assistant Cedric Tibbo was overwhelmed with project work with no hands-on support from the project team based in the UK. However he rose to the challenge and built his capacity more than otherwise might have happened (see Lessons Learnt, above).

A significant challenge to the project which affected our reported outcomes and impact is that a lot of the conservation NGOs we planned to work with in Cameroon and internationally paused much of their field work, or prioritised other aspects of their work. This meant we could not work as proactively as we had expected with conservation NGOs to apply the decision support tool. I

COVID 19 has additionally affected our project in terms of cancelled meetings and international events. Though we have found other opportunities to share our work and have had good readership of our blogs and attendance of our webinars and learning events.

Members of the project team have used their expertise and insights gained from this project to contribute to international narratives about wild meat use linked to COVID, including key high profile pieces:

We did it to ourselves- Scientist says intrusion into nature led to pandemic	The Guardian	https://www.theguardian.com/world/2020/apr/25/ourselves-scientist-says-human-intrusion-nature-pandemic-aoe
What does more environmental damage: eating meat from the wild or a factory farm?	The Guardian	https://www.theguardian.com/environment/2020/may/26/ban-on-bushmeat-after-covid-19-but-what-if-alternative-is-factory-farming
Saving lives, protecting livelihoods and safeguarding nature: risk-based wildlife trade policy for sustainable development outcomes post-COVID.	Frontiers in Ecology and the Environment	https://www.frontiersin.org/articles/10.3389/fevo.2021.639216/full
Investigating the risks of removing wild meat from global food systems.	Current Biology	https://www.sciencedirect.com/science/article/pii/S0960982221001445?fbclid=IwAR3oPA1yMY_f8l44qLxT6tNRhVDUQ4Dv_C-YyEXvsOMzWgEaUHd5pHHwYBA
Beyond banning wildlife trade: COVID-19, conservation, and development.	World Development	https://www.sciencedirect.com/science/article/abs/pii/S0305750X20302485
Possible negative consequences of a wildlife trade ban	Nature	https://www.nature.com/articles/s41893-020-00676-1

During project year 3 (April 2020-March 2021) we applied for a supplementary project in response to the Covid-19 pandemic, under the Darwin Rapid Response grant scheme. This allowed us to build on our experience with the Why Eat Wild Meat project and explore how wild meat consumption is changing during the pandemic. This additional research project at the DFR was led by FCTV researcher Cedric Tibo and was a valuable capacity building experience for Tibo as an early career researcher based in Cameroon. Tibo has since presented his work during a meeting organized in Yaoundé and online events such as an IIED debate entitled 'Why eat wild meat Insights from Africa and lessons for COVID 19 responses' (https://www.youtube.com/watch?v=BAkL8KxRo-c). Tibo has also compiled his research into a manuscript for which he has led the authorship – 'Impacts of the Covid 19 pandemic on livelihoods and wild meat use in communities surrounding the Dja Faunal Reserve, South-East Cameroon'. This journal article has been accepted by the African Journal of Ecology and a revised manuscript is available in the supporting folder to Annex 7.

9   Finance and administration

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 (£)
IIED Team Leader - Dilys Roe	
IIED Researcher - Francesca Booker	
IIED Project Management - Fiona Roberts / Christele Riou / Melanie Vaufrey	
IIED Communications team - Kate Green / Jodie Frosdick / Teresa Corcoran / Anne Schulthess / Alasdair Brown	
Oxford Technical Lead - EJ Milner-Gulland	
Oxford Project Post doc - Stephanie Brittain	
TCF Cameroon Coordination - Neil Maddison	
FCTV Cameroon Lead - Mama Mounafon	
FCTV Community Liaison Officer	
FCTV Finance Manager	
FCTV Administrator	
FCTV Research Facilitator	
TOTAL	

Capital items – description	Capital items – cost (£)
TOTAL	

Other items – description	Other items – cost (£)
Oxford publication costs TCF publication costs IIED publications costs	
TOTAL	

9.1 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
IIED biodiversity team reserves	
IIED funding for Cameroon PCLG workshops from the Arcus Foundation, years 1 and 2	

FCTV Neil Maddison travel and subsistence year 1	
FCTV Neil Maddison time contribution in-kind in year 2	
Oxford University waived overheads	
TOTAL	

Source of funding for additional work after project lifetime	Total (£)
TOTAL	

9.2 Value for Money

This project was successful at leveraging in-kind contributions in terms of skills, staff time and resources of several partners including Oxford University, The Conservation Foundation and IIED. We have also leveraged additional funds to publish the decision support tool in Spanish and Portuguese, and this has benefited from in kind staff time and skills of staff at Manchester Metropolitan University and Oxford Brookes University. In Cameroon, we have joined up with PCLG to host meetings to share information about the project's findings with Arcus Foundation Funding.

OPTIONAL: Outstanding achievements of your project

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)

Capacity building

Cedric Tibbo, an early career researcher in Cameroon, has shared some reflections:

"My work in the Why Eat Wild Meat project has been a great experience for me. Indeed, I learned a lot of things in different aspects of conservation during this project, both through my time at FCTV, my collaborations with the project team at Oxford and IIED, and my field experiences. In addition to that, I have considerably enriched my address book. This is how this project opened up a field of opportunities and greatly contributed to consolidating my career goals."

Caption: Cedric Tibbo during field work around the DFR, Cameroon.

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Improved "bushmeat-alternative" projects in Cameroon and Africa-wide result in reduced exploitation of wild species and increased food security, contributing to achievement of SDGs while meeting CBD and CITES obligations			
Outcome: (Max 30 words) Strengthened capacity of policy-makers and practitioners in Cameroon and Africa-wide to design and implement effective "bushmeat-alternative" interventions that reflect drivers of food choice, conserve biodiversity and contribute to food security.	0.1 Improved understanding by conservation policy-makers in sub-Saharan Africa of different drivers of wild meat as a food choice of local people, compared to baseline at start of project 0.2 Improved understanding by "bushmeat-alternative" project designers in sub-Saharan Africa of characteristics of effective bushmeat-alternative projects compared to baseline at start of project 0.3 Enhancements to two bushmeat alternative projects at DFR, and a proposal for another, by the end of the project, so that projects have the right conditions in place to a) improve food security and provide sustainable nutrition while also b) reducing exploitation of wild species.	0.1 Survey of policy-makers to determine understanding before and after project implementation 0.2 Survey of project designers/implementers (identified in evidence review) before and after dissemination of project findings/tool, to determine understanding and willingness to implement improved projects 0.3 Reports from project designers/managers; feedback from villagers 0.4 Reports on uptake of decision support tool and policy guidance materials; feedback from project funders and implementers .	International NGOs and policy-makers (e.g. ECOFAC, CBD) are responsive to findings and change their processes accordingly [our strong international networks and involvement of key players in Advisory group will help here] Feasible and effective bushmeat alternatives exist, that can divert enough consumption from bushmeat to reduce hunting pressure [In the long run, food systems need to reflect changing environmental, social & economic realities. In the short-medium term there is potential for e.g. aquaculture, wild-caught fisheries, mini-livestock] Better-designed "bushmeat-alternative" projects will lead to reduced hunting and reduced threats to wildlife (because rural consumption is a major threat) [Our experience in DFR and elsewhere

	0.4 Receipt, uptake and commitments to use project-generated evidence and tools by at least 50% of existing bushmeat-alternative project designers, funders and implementers in DFR (from inventory generated in output 2).		suggests rural consumption is a threat; detailed research by J Wright suggests design improvements are feasible and could be effective] Local people are willing to take part in surveys and engage with research team [the team has very good relationships with local people in areas around the DFR and have worked with them for a number of years] Creation of decision support tool is feasible based on information collected, and evidence from DFR will be generalisable [we expect the evidence internationally to be weak; our new evidence-base for DFR will be locally relevant and our expectation based on previous work is that broad general lessons will emerge] Cameroon government remains supportive of the project and responsive to research findings
Outputs: **1.** Factors influencing use of wild meat as a food choice around Dja Biosphere Reserve and elsewhere	1.1 Evidence review of drivers of wild meat as a food choice across Africa completed by end of year 1	1.1 Report and database of sources available online and disseminated via partner networks	Sufficient information is available at the international scale to draw conclusions

in sub-Saharan Africa understood and documented	1.2 Field work to gain local communities' perspectives on food choice at DFR completed and analysed by end of Y2Q2	1.2 Biannual progress reports to Darwin, research findings report, research paper	Local people are willing to participate in surveys and interviews
	1.3 Findings of the evidence review and fieldwork are discussed with Cameroon and DFR policy makers and conservation practitioners by end of Y2.	1.3 Meeting reports 1.4 CBD reports 1.5 PCLG meeting reports, dissemination records	Policy makers and practitioners are sufficiently interested and engaged to attend meetings and provide feedback
	1.4 Findings reported to CBD at 2020 CoP in Y3	1.5 IIED and partner websites with materials available	
	1.5 Findings disseminated in Cameroon and internationally by end of project	1.5 Research papers and conference presentations	
2. Characteristics of existing bushmeat alternative projects in DFR and elsewhere, and the role of drivers of food choice in project success, analysed	2.1 Evidence review of the factors affecting success of bushmeat-alternative projects in sub-Saharan Africa completed by end of year 1	2.1 Project progress reports and publications	Sufficient information is available [we already have a foundation from J Wright's work]
	2.2 Inventory of existing bushmeat alternative projects in Dja region completed and placed in online database by end of Y1Q3	2.2 Project report and database of projects published on website 2.3 Research paper and report	Local people prepared to respond to survey questions and engage with project design.
	2.3 Analyses of evidence review & inventory to discern success factors completed by end of year 1	2.4 Results of household surveys; write up of focus group discussions, data from choice experiments;	Policy makers and practitioners are sufficiently interested and engaged to attend meetings and provide feedback

	2.4 Fieldwork completed to explore bushmeat-alternative intervention preferences in three case study sites in DFR, and data analysed, by Y2Q4 2.4 Findings discussed with Cameroon and DFR policy makers and conservation practitioners by end of Y2Q2. 2.5 Findings reported to CBD at 2020 CoP in Y3 2.6 Findings disseminated internationally by end of project	project progress reports, research report/paper 2.5 Meeting reports 2.6 CBD reports 2.7 Dissemination reports, web download stats, conference proceedings, journal article altmetrics	
3. Enhancements to existing bushmeat-alternative projects and a new proposal, agreed with villagers and implementers at DFR case study sites	3.1 Improved design of at least one new or existing bushmeat-alternative project in each of three sites around DFR agreed with local communities and implementers by end of project 3.2 At least 50% of project implementers acting within the DFR report improved understanding of the drivers and barriers to successful bushmeat-alternative projects, resulting in improved implementation effectiveness by end of project	3.1 Inventory results, minutes of meetings held with implementers, project progress reports 3.2 Feedback from survey of project implementers; 3.7 Community surveys at beginning and end of project	Local people willing to participate in the project There is sufficient information generated from the research under outputs 1 and 2 that a locally acceptable and effective project design improvement can be agreed Implementers of existing and planned projects are prepared to engage with us to improve their projects and monitor outcomes. [our strong relationships with these project implementers, and careful

			laying of the groundwork in year 1, makes this likely]
	3.3 At least 50% of households in case study communities report increased engagement with bushmeat-alternative projects in their area by end of the project		
4. Capacity to design and implement improved "bushmeat alternative" interventions improved elsewhere in Cameroon and internationally.	4.1. Policy recommendations developed discussed and agreed with Cameroonian government by end of project 4.2 Decision support tool designed, and tested in DFR, by end of Y3Q2. 4.3. Decision support tool disseminated to at least 100 conservation and/or development organisations, tested and validated for at least 20 projects, and refined accordingly, by end of Y3Q3. 4.4. Endorsement of guidance/ recommendations by at least one international conservation policy process or large-scale programme developing bushmeat-alternative interventions, by end of project.	4.1 Policy recommendations available in French and English on project website; minutes of meetings 4.2 Tool available on project website, web download stats, PCLG meeting reports; project design documents, project implementer feedback and reports 4.3 Evidence of dissemination online and at CBD side-event. Report of validation testing. 4.4 Dissemination records, downloads from website, feedback surveys reporting on uptake and usefulness, letter of confirmation of use from at least one organisation.	Policy makers and practitioners are receptive to research findings and recommendations and willing to provide feedback Tool is useful and generalizable beyond case study sites. "Bushmeat-alternative" projects continue to be developed by other actors
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)			
0.0 Agreement of ToRs and contracts for project partners (IIED)			

0.1 Inception meeting with project partners in Cameroon (All)

0.2 Project webpage established and flyer developed (including translation of flyer into French) (IIED)

0.3 Biannual skype-based progress review meetings

0.4 Annual project meetings in Cameroon (1 day project partners and advisors, 1 day outreach via PCLG)

1.1 Desk-based evidence review of drivers of food choice (sub-Saharan Africa) (IIED)

1.2 Fieldwork in Dja on local preferences, drivers and constraints, & role of wild meat in food security (focus groups, key informant interviews) (Oxford, FCTV, LEL)

1.3 Synthesis and write up of food choice evidence review (IIED)

1.4 Synthesis and write up of first phase of fieldwork (Oxford)

1.5 Meetings with DFR and national policy-makers, conservation actors and community representatives/associations to present findings and discuss uptake (Oxford, FCTV, LEL)

1.6 Side event at CBD CoP (IIED)

1.7 Dissemination of food choice evidence review report internationally (IIED)

2.1 Desk-based evidence review of bushmeat alternative projects (IIED)

2.2 Inventory of bushmeat-alternative initiatives around DFR completed and posted in online database (IIED & all teams)

2.3 Cross checking of Dja projects with success factors from evidence review (IIED and Oxford)

2.4 Synthesis and write up of evidence review on bushmeat alternative projects (IIED and Oxford)

2.5 Fieldwork to explore preferences for bushmeat-alternative interventions with villagers in 3 case study sites (including survey design, training of FCTV staff in survey techniques, implementation of choice experiment and household surveys) (Oxford & FCTV/LEL)

2.6 Data analysis and write up of overall research report & other outputs such as papers (Oxford with inputs from all)

2.7 Meetings with DFR and national policy-makers and conservation actors to present findings and discuss uptake (Oxford, FCTV, LEL)

2.8 Side event at CBD CoP (IIED)

2.9 Dissemination of report internationally

3.1 Work with villagers and project implementers in 3 sites to improve existing projects based on findings (Mindourou, Northern buckle) or design new project for future fundraising (LEL/FTCV & Oxford)

3.2 Meetings with project designers/implementers (community organisations, NGOs, govt) in DFR to disseminate project findings and explore ways to improve project design & implementation (FCTV/LEL)

3.3 End of project survey of villagers in 3 case study sites to assess engagement with, and perceived effectiveness of, bushmeat-alternative projects or proposals (FCTV/LEL & Oxford)

4.1 Drafting and translation of policy recommendations (IIED & FCTV/LEL with inputs from Oxford)

4.2 Development of Decision Support Tool based on experience in case study sites & evidence reviews (LEL/FCTV with inputs from all)

4.3 Meetings with project designers/implementers (community organisations, NGOs, govt) in DFR to test & validate tool and refine/update its design (FCTV/LEL)
4.4 Presentation of tool (and experience from case study sites including new project designs) to other project implementers via the Dja Actors Forum & PCLG (FCTV/LEL)
4.5 Meetings with Cameroon policy makers to discuss recommendations & feasible changes in interventions (FCTV/LEL)
4.6 International dissemination of project findings and tool (IIED with inputs from all)
4.7 Validation exercise for tool in other projects (IIED & Oxford)
4.8 Feedback survey on project's impact on intervention design internationally (IIED with inputs from all)
4.9 Presentation at CBD CoP (IIED)

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.	