

Darwin Initiative Main Project Annual Report

Important note: To be completed with reference to the Reporting Guidance Notes for Project Leaders:

it is expected that this report will be no more than 10 pages in length, excluding annexes

Submission Deadline: 30 April

Darwin Project Information

Project Reference	23-015
Project Title	Guinea-pigs as guinea-pigs, reducing bushmeat hunting while improving communities' well-being
Host Country/ies	Democratic Republic of Congo
Contract Holder Institution	Wildlife Conservation Society
Partner institutions	Union des Eleveurs de Cobayes au Congo Institut Congolais pour la Conservation de la Nature
Darwin Grant Value	£299,494
Funder (DFID/Defra)	DFID
Start/end dates of project	April 2016 – March 2019
Reporting period (e.g., Apr 2015 – Mar 2016) and number (e.g., Annual Report 1, 2, 3)	April 2016 – March 2017 Annual Report 1
Project Leader name	Michelle Wieland
Project website/blog/Twitter	
Report author(s) and date	Michelle Wieland, Thierry Metre, Andrew Kirkby, Charlotte Spira. 30 th April 2017.

1. Project Rationale

Historically, war and regional insecurity have left many rural communities in DRC without sufficient agricultural or livestock production, leading to aggravated poverty and extreme levels of malnutrition with 46% of children under age five in the Kivu provinces suffering from stunting due to the lack of protein. Without access to domestic meat, bushmeat has become a major protein source for the region's communities.

Recent WCS studies to understand bushmeat hunting and consumption around Kahuzi-Biega National Park (KBNP) found high rates of both, particularly around artisanal mining sites. These sites are often remote, basic and have disconnected economies that demand locally-procured meat. The absence of domestic meats in these sites has led to elevated meat prices that further drive the local bushmeat trade and hunting intensification in KBNP. The Congolese Wildlife Authority (*Institut Congolais pour la Conservation de la Nature*) (ICCN), which has gradually regained parts of KBNP after losing control over much of it during the war, still lacks financial resources to effectively enforce hunting laws in key protected areas.

This trend has led conservation authorities to identify bushmeat hunting as the most serious threat to wildlife in KBNP, which is one of Africa's most biodiverse protected areas and a critical

refuge for many endangered species. As hunting is conducted indiscriminately, rare and vulnerable species are particularly at risk, including primates such as the vulnerable owl-faced monkey, the endangered eastern chimpanzee and the endemic and critically endangered Grauer's gorilla, with a population of 180 that are concentrated in KBNP's highland sector.

Men and women interviewed in a WCS survey widely recognised that hunting around their villages had caused a decrease, and in some cases disappearance, of mammal populations. The majority of informants stated they would reduce bushmeat consumption if domestic meats became available and if laws prohibiting hunting in KBNP were enforced. Livestock production initiatives have attempted to improve protein supply around the park, but the lack of knowledge of adequate husbandry practices has caused poor production results and therefore yielded only low adoption rates.

This Darwin Initiative supported project aims at reducing hunting pressures on mammal species in KBNP while improving wellbeing by working with households whose livelihoods threaten wildlife or that score low on wellbeing measures) to develop sustainable livestock production and consumption around 5 targeted communities.

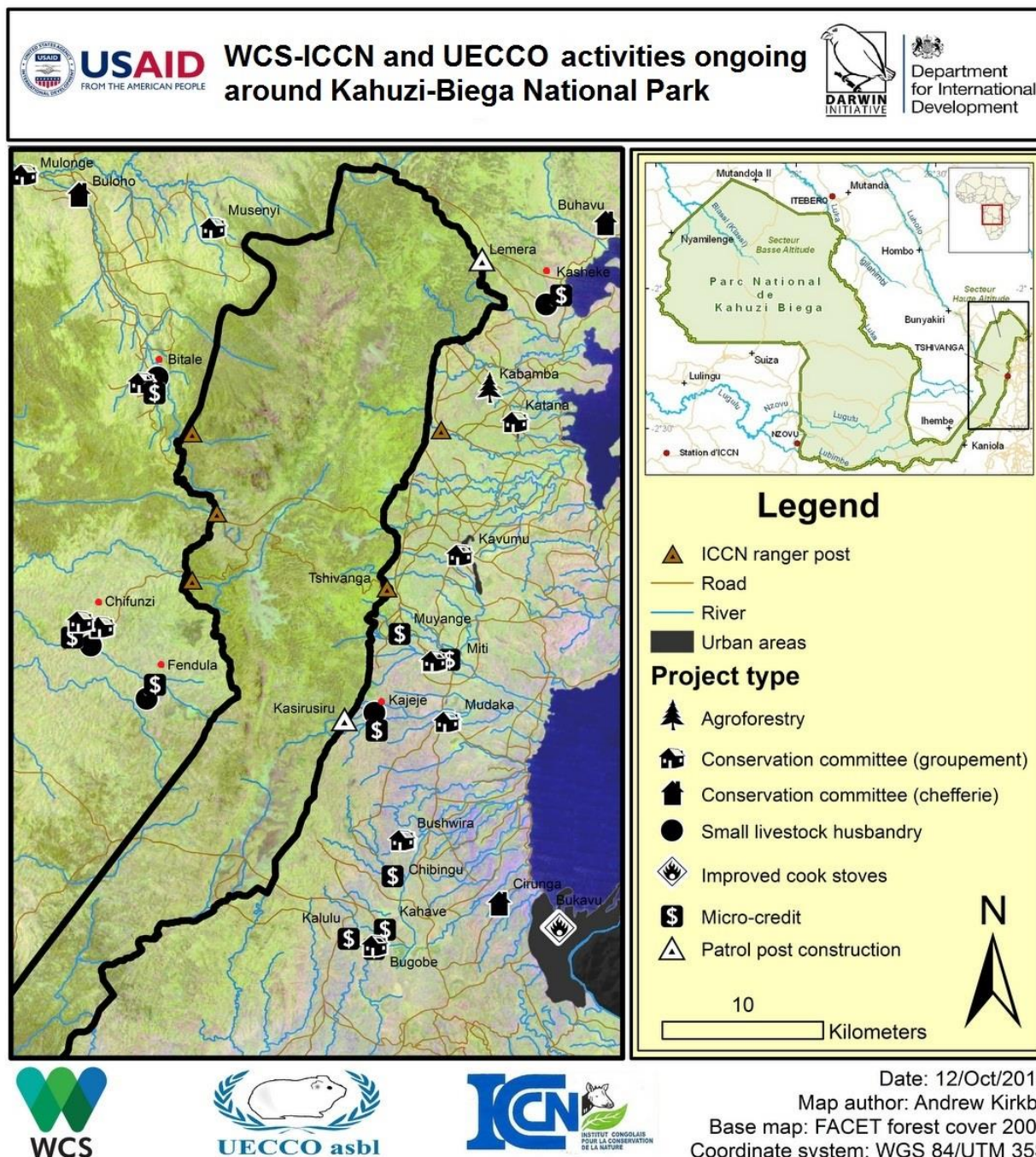


Figure 1. Map identifying Darwin Initiative intervention locations around Kahuzi-Biega National Park, combined with additional USAID-funded projects. The five Darwin interventions sites are Chifunzi, Fendula and Bitale to the west of the park and Kajeje and Kasheke to the east (indicated with a ●).

2. Project Partnerships

In 2002 WCS established a site-based conservation programme in KBNP and provided since then technical and financial support to the Congolese wildlife authority (ICCN) at KBNP. Our support has been targeted towards park management, research and development and implementation of strategic projects to help reduce threats to the park's wildlife. In 2015, WCS established a contact with UECCO, a local NGO specialised in guinea pig husbandry and breeding research, and conceptualized and designed together with ICCN a new project following a series of project feasibility studies.

At the start of the Darwin project, WCS helped UECCO and ICCN develop an MOU that would help guide their new relationship.

After the formal Darwin Initiative award was provided, a project launch meeting was organized with the participation of all project partners. During this meeting the project was discussed and the work plan was reviewed as per proposal. It was agreed that in general at least one member of a partner organisation would be invited to participate in training sessions or surveys to make sure that there was a strong coordination in the project. This arrangement has been upheld throughout the year.

During the reporting period a Monitoring & Evaluation (M&E) plan was drafted using already established data collection methods (Basic Necessities Survey used by WCS, SMART used by the ICCN and livestock production monitoring surveys used by UECCO). In addition, new surveys such as bushmeat consumption surveys using the *Unmatched Count Technique* and market surveys were developed and tested before being administered.

Building on existing expertise, project partnerships and coordination have been extremely complementary with clear roles and responsibilities outlined from project inception. One major project setback during the first year though was the departure of KBNP Chief Warden Radar Nishuli who was involved in the conceptualisation of the project just after the project started. This caused some delays in the project implementation as activities were halted while the new site director was getting orientated (as ICCN is a fundamental partner, complete buy-in from the leadership is important to us).

3. Project Progress

After receiving formal information that the project proposal was successful, the Darwin Initiative provided the option to start the project late, to which the project partners agreed to start in June 2016.

The project started with planning meetings for the selection of intervention sites, conducting feasibility studies, presenting the project to communities to get their input and assess their willingness to participate, and conducting baseline surveys. Community Conservation Committees (CCC), through which the project is conducted, were established and contracts between ICCN and the CCCs were signed. A monitoring and evaluation plan was developed, surveys established and baseline surveys conducted at all agreed project sites.

The project was initiated at the first site of Kajeje with the selection of 30 beneficiaries (14 women and 16 men), of which 27 individuals chose to use their micro-credit to invest in guinea pig production. As the credit follows a rotational system, villagers must submit their application to the CCC to participate (priority is given to known bushmeat hunters and traders) – over 600 households have submitted their application to participate.

Within the first year of the project the production of guinea pigs in Kajeje increased by 378%, from 211 prior to the project start to 798 in March 2017. During this period 169 guinea pigs

have been sold or eaten by the beneficiaries. On March 24, 2017, reporters from a local radio (*Radio Maendeleo*) reported the huge success of guinea pig production in Kajeje by citing project partners and the support of Darwin/DFID. With the site becoming well known for its guinea pigs, a humanitarian organization called *People in Need* purchased over 600 guinea pigs (of which 250 came from project beneficiaries) to take to North Kivu to support a refugee food crisis program. Although good for individual farmers, this is a new risk to the overall project's biodiversity target and must be considered in Year 2.

Additionally, micro-credit was also provided to two other sites, namely Kasheke (28 women and 2 men) and Chifunzi (25 women and 5 men) increasing the number of micro-credit beneficiaries in the first year of the project to a total of 90 beneficiaries. An overall amount of USD 10,350 was provided as seed funding for the micro-credit scheme.

Training was provided to all micro-credit beneficiaries and to 11 non-beneficiaries in guinea pig-based enterprise development. A cooking class was held in March 2017 in the Kajeje site with all project beneficiaries as well as 8 non-beneficiaries, during which a variety (11) of cooking recipes for the consumption of guinea pigs were taught to participants.

A workshop was held in Kajeje at the end of March 2017 to connect actors along the guinea pig value chain, in which 25 people participated (19 beneficiary guinea pig keepers – 14 men and 5 women – and 6 restaurateurs – 5 men and 1 woman).

Due to a sudden change of park management in KBNP in August 2016, project implementation encountered some unforeseen delays preventing field teams from going to the other sites to provide training that would be followed by giving micro-credit and guinea pig husbandry support. In August 2016 KBNP's Chief Park Warden Radar Nishuli was replaced by Lucien Lokumu. Almost all activities were put on hold while the change-over was taking place until Lucien had become fully established.

In addition from September to December 2016, DRC suffered from serious security uncertainty due to the ending of the presidential term without an election. To reduce security risks to WCS staff, WCS's office closed early in December and many planned field missions were postponed until after December to wait for the security situation to improve. Thankfully January 2017 continued as normal.

While WCS continued project implementation at the different sites, the WCS project vehicle needed repairs. It turned out to be more financially and operationally sustainable to purchase a new vehicle than to replace all the parts or rent a vehicle for the duration of the project. The purchase of the new vehicle was approved by the Darwin Initiative at the end of February 2017.

ICCN continued as planned to conduct regular ranger patrols with Darwin-funded food rations throughout the first year. With matched funding from USAID and the German donor support from the German Development Bank (KfW), ICCN conducted 2,137 patrol-days over the 12 months between April 1, 2016 and March 31, 2017, covering 62% of the park's highland sector around which intervention sites are located. The results were the closure of a new mine site that appeared near the Fendula intervention site and the arrest of 9 miners. Between April 2015 – March 2016 and April 2016 – March 2017 an increase from 1 to 5 active mine sites was detected in the park's highland sector. Although each of these mines was shut down by ICCN, it becomes apparent that more patrol efforts are needed to deter miners from creating new mining sites inside the park. Four new mining sites have been detected in the northern part of the park's highland sector. At the same time rangers detected and removed 705 hunting snares. Wildlife sign encounter rates within the park's highland sector were estimated from transect surveys conducted in 2015 and new transect surveys will be conducted in 2020 to evaluate changes in wildlife populations.

ICCN started an awareness campaign in the intervention site of Kasheke (northeast of the park) with a large scale mission to raise awareness about the destructive impacts of mining on the park's wildlife and forest, its connections to wildlife hunting, and the legal sanctions that the park authority can enforce to address illegal mining. Meetings were held with local leaders, the Community Conservation Committee, the local government, and village and tribal chiefs – all of whom have a high level of influence in the area. The objective was also to ensure that as ICCN puts more effort into law enforcement in the area, there will not be a negative response from the surrounding villages due to a poor understanding of the environmental laws.

Although suffering delays in the implementation, project interventions in Kajeje have been successful and Kajeje itself has become a demonstration site for our conservation work. Project partners will make up for the loss of time by increasing the number of beneficiaries where micro-credit has not yet been provided with USAID match funding to ensure that target numbers are reached.

3.1 Progress in carrying out project activities

The project progress has been made in the following four outputs:

Output 1. Project beneficiaries have the financial and technical capacity to set up and manage small enterprises

- Project partners jointly selected the five project intervention sites based on existing data on mining, bushmeat hunting and awareness of community needs and poverty. All sites already had established CCCs. Feasibility studies were conducted at each site which met selection criteria (high willingness of communities to participate, bushmeat hunting ongoing, prior existence of guinea pig keeping to not start something completely new but instead build on existing livelihood options). The project was then presented at all sites by ICCN, WCS and UECCO to representatives of the community, CCCs and local government which resulted in their high enthusiasm and agreement to continue with the project.
- The beneficiary selection process was completed and micro-credit was allocated to community members in three sites, Kajeje (14 women and 16 men), Kasheke (28 women and 2 men) and Chifunzi (25 women and 5 men), combined with training in micro-entrepreneurship, financial literacy and credit management. Due to delays the other 2 sites have not yet been provided with credit, however the project presentation meetings were held and the sites will receive credit in the first quarter of year 2.

Output 2. Improved guinea pig production and breeding techniques in target sites

- UECCO provided training in guinea pig husbandry and micro-entrepreneurship development to 46 men and 29 women from Kajeje during the first year. As micro-credits had not yet been given to the other sites, their support was limited to one site. UECCO continued to provide technical support to guinea pig keepers throughout the year.

Output 3. Increased availability and adoption of guinea pig meat by communities in target sites

- UECCO held a workshop in Kajeje with guinea pig producers, market vendors and restaurant owners, aiming to connect the various actors of the guinea pig value chain.
- UECCO held a cooking class in Kajeje during which 20 men and 13 women were taught a variety of guinea pig recipes (11).
- The monitoring of guinea pig production at the household level has shown a 378% increase in the number of guinea pigs available among project beneficiaries.
- Baseline market and restaurants surveys were conducted in each of the five intervention sites to assess the availability of guinea pigs compared to other meat sources. Follow-up surveys will enable us to estimate the change in guinea pig availability over time.
- Household meat consumption surveys have been conducted with both beneficiaries and non-beneficiaries in Kajeje to provide a baseline against which we will evaluate changes in guinea pig consumption over time. Using the Unmatched Count Technique (UCT¹¹) these surveys will also enable us to estimate changes in bushmeat consumption over the project implementation period.

¹¹ The UCT method uses a series of pictures to determine illegal behaviors by providing respondents to choose responses that do not self-incriminate, providing us the opportunity to measure bushmeat consumption over time.

Output 4. Law enforcement and awareness raising activities effectively deter bushmeat hunting and the establishment of new mining sites in KBNP

- To discourage hunting in KBNP, ICCN raised awareness in remote communities about hunting and KBNP environmental laws and promoted discussion on the impacts of overhunting on wildlife and on rural communities. ICCN stressed the importance of biodiversity conservation, with positive messages promoting guinea pig production and consumption.
- WCS supported monthly food rations for rangers to conduct patrols throughout the year.
- Over the first year ICCN rangers removed 705 hunting snares around the project sites. Other law enforcement successes included closure of a new mine site and the arrest of 9 miners near the project sites of Fendula and Chifunzi (western side of the park).
- ICCN continued to monitor wildlife and illegal activity indicators using SMART taken from ranger patrols. WCS supported a national SMART meeting in March 2017 at Kahuzi-Biega National Park which was an effort to technically support data collection.

3.2 Progress towards project outputs

Indicators	Baseline	Change recorded by 2016	Source of evidence	Comments (if necessary)
Output 1:	Project beneficiaries have the financial and technical capacity to set up and manage small enterprises.			
Indicator 1.1. By the end of year 1, 5 Community Conservation Committees (CCCs) have been established (one per intervention site).	5 CCCs	5 CCCs	WCS records; Contracts and agreements signed between CCCs and the ICCN.	All the sites selected for the project turned out to already have CCCs.
Indicator 1.2. By the end of year 1 , 200 guinea pig keepers and micro-credit beneficiaries have received training in small enterprise development and financial literacy. This will have increased to 300 guinea pig keepers and 300 micro-credit beneficiaries by the end of year 3, of which 60% will be women.	0 man and 0 woman	90 credit and guinea pig beneficiaries - 67 women and 23 men received training in enterprise and financial literacy	WCS and UECCO training records and reports; micro-credit allocation records.	Delays in implementation, see section 3, but will be made up in Y2.
Indicator 1.3. By the end of year 2 , at least 50% of beneficiary guinea pig keepers have started micro-enterprises and are selling guinea pigs.	0 enterprise for guinea pig commerce	17 beneficiaries are selling guinea pigs.	Training records; Guinea pig beneficiary surveys.	
Indicator 1.4. By the end of year 3 , at least 100 hunters have diversified their livelihoods as a result of the micro-credit scheme compared to year 1 baseline.	0 hunter	16 ex-bushmeat hunters (men) and 8 women diversified their livelihoods	Micro-credit beneficiary surveys; micro-credit allocation records.	Although women do not hunt bushmeat, they are involved in the bushmeat trade.
Indicator 1.5. By the end of year 3 , 600 beneficiaries (micro-credit recipients and guinea pig keepers receiving training in guinea pig marketing) have increased their revenues by at least 25% by having set up micro-enterprises, compared to year 1 baseline.	Wealth index of Kajeje beneficiaries = 2,478,009 Congolese francs	NA	Microcredit and guinea pig beneficiary surveys. BNS survey	Change not recorded yet because of delay in project implementation, see section 3.

Indicators	Baseline	Change recorded by 2016	Source of evidence	Comments (if necessary)
Output 2:	Improved guinea pig production and breeding techniques in target sites.			
Indicator 2.1. By the end of year 2 , guinea pig mortality rates have decreased by at least 20% in households that have received guinea pig husbandry training, compared to year 1 baseline.	NA	30.4% average mortality in beneficiary households.	Guinea pig beneficiary surveys	Some beneficiaries have neglected the hygiene of their guinea pigs which became sick and died. Closer monitoring of guinea pig production will be done in year 2.
Indicator 2.2. By the end of year 3 , the number of guinea pigs per participating household has reached at least 30 individuals, compared to early 2016 baseline.	On average 8.4 guinea pigs per household	On average 23.3 guinea pigs per household	Guinea pig beneficiary surveys	
Output 3:	Increased availability and adoption of guinea pig meat by communities in target sites.			
Indicator 3.1. Each year , all beneficiary guinea pig keepers will have an average of 25% increase in the proportion of domestic meat in their household diet.	In Kajeje beneficiary household, average of 20.4% of meals include meat, of which 46% is guinea pig meat	NA	Guinea pig beneficiary surveys.	Baseline only available in the site of Kajeje. 12 months not yet completed since project launch at the site.
Indicator 3.2. By the middle of year 2 , at least 25% of local restaurants in intervention sites offer guinea pig dishes on at least a weekly basis.	9% of local restaurants	NA	Restaurant surveys.	12 months not yet completed since project launch.
Indicator 3.3. By the end of year 3 , the number of guinea pigs available in markets has increased by at least 50% compared to year 1 baseline.	200 guinea pigs in markets in all intervention sites combined	NA	Market surveys.	12 months not yet completed since project launch.
Output 4:	Law enforcement and awareness raising activities effectively deter bushmeat hunting and the establishment of new mining sites in KBNP.			
Indicator 4.1. From the end of year 1 onwards, no new mine sites are established within the park's highland sector.	1	5	SMART patrol data.	4 new mine sites detected in the northern part of the park's highland sector.
Indicator 4.2. At the end of year 2 , 25% more individuals surveyed at intervention sites state that they are discouraged from hunting in the park due to the risk of being caught and prosecuted, compared to year 1 baseline data collected at the start of the project.	NA	NA	Household surveys	Not evaluated yet.

Indicators	Baseline	Change recorded by 2016	Source of evidence	Comments (if necessary)
Indicator 4.3. By the end of year 3, 90% of the beneficiaries who had already been arrested for bushmeat hunting prior to the project period did not get arrested again.	80% of current beneficiaries had been arrested or known to illegally hunt by the community	100% of current beneficiaries have not been arrested	ICCN arrest records.	
Indicator 4.4. By the end of year 3, at least 1000 people including all beneficiaries will be aware of the impacts of bushmeat hunting on wildlife populations.	NA	NA	Household surveys.	Not evaluated yet.

3.3 Progress towards the project Outcome

	Baseline	Change by 2016	Source of evidence	Comments (if necessary)
Outcome:	Reducing hunting pressure on KBNP's wildlife, while improving the wellbeing of 600 marginalised households, through increasing the availability of domestic meat and replacing demand for bushmeat in mining villages			
Indicator 0.1. By the end of year 3, signs of bushmeat hunting have decreased by at least 25% within a 5km buffer inside the park boundary compared to early 2016 baselines.	0.018 bushmeat hunting sign/km	0.023 bushmeat hunting sign/km	Hunting sign data from SMART patrols.	Increase in patrols has improved knowledge of hunting pressure
Indicator 0.2. By the end of year 3, there has been a 10% increase in encounter rates of signs of key large mammal and primate species, compared to early 2016 baselines.	Chimpanzees: 0.027 sign/km. Gorillas: 0.023 sign/km. Ungulates: 0.007 sign/km. Small primates: 0.021 signs/km.	Chimpanzees: 0.037 sign/km. Gorillas: 0.024 sign/km. Ungulates: 0.0125 sign/km. Small primates: 0.021 signs/km.	Large mammal sign data collected through SMART patrols.	Increase in patrols will reduce future variance in encounter rates
Indicator 0.3. By the end of year 3, domestic meat has become the main source of protein intake for at least 200 male and female-headed households in intervention sites.	35.4% of households in intervention sites consume bushmeat.	NA	Household consumption surveys.	Will be measured again after 12 months.
Indicator 0.4. By the end of year 3, there has been a 50% increase in the number of guinea pigs available in markets and restaurants compared to the number available at the start of the project	200 guinea pigs in markets; 4.5% of meat-based meals served in restaurants are guinea-pigs	NA	Market and restaurant surveys.	Will be measured again after 12 months.
Indicator 0.5. By the end of year 3, at least 600 households in target communities have increased indices for wellbeing compared to baseline data collected at the start of the project when selecting project	Average beneficiaries' well-being score = 49%	NA	Basic Necessities Surveys (BNS).	Will be measured again after 12 months.

beneficiaries.				
Indicator 0.6. By the end of year 3, at least 300 beneficiary households have increased nutrition indices compared to year 1 baselines.	Average beneficiaries' nutrition index = 0.63	NA	BNS and household meat consumption surveys.	Will be measured again after 12 months.

3.4 Monitoring of assumptions

All listed risks, assumptions, and ways to counter them from the original proposal still hold true.

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

The project is designed to improve beneficiaries' wellbeing by (1) increasing their revenue through access to micro-credit and strengthened financial training and (2) improving nutrition through increased protein availability. In the long-term, capacity and knowledge will continue to benefit the communities.

By working along the bushmeat value chain at intervention sites, the project is protecting wildlife through reduced bushmeat supply through law enforcement, sustainable livelihoods and environmental education. The project is also reducing the demand for bushmeat by shifting local consumption behavior towards domestic livestock through increased availability and preference of guinea pig meat.

Already 150 beneficiaries from poor households have been selected around the park. Micro-credit and financial training was provided to a total 67 women and 23 men in the first year with the remaining 60 to be provided in first quarter of year 2. The objective is to target both bushmeat hunters and women bushmeat traders to diversity their livelihoods and develop more sustainable and lucrative revenue-generating activities.

Guinea pig husbandry training and support from UECCO has shown to have hugely increased the availability of guinea pig meat, with a 378% increase in the number of guinea pigs produced by beneficiaries. WCS's baseline surveys have found that guinea pig meat is the cheapest and most consumed meat in all 5 sites, but often the least available in the market as the guinea pigs produced are consumed at home. UECCO has provided training in guinea pig husbandry, cooking classes and held meetings with guinea pig producers, traders and restaurateurs to connect the actors along the guinea pig value chain.

In longest running intervention site of Kajeje, over 169 guinea pigs were sold at the market within the last 3 months of the project and the site is becoming known as a local guinea pig supplier to other neighboring areas.

While the project has been working to target villages outside the park, there has been consistent support to monthly ranger rations, enabling rangers to patrol the park covering 62% percent of the intervention zone, removing 705 hunting snares, and arresting 9 illegal miners.

As the project is still in its early stages we are not yet able to detect changes in wellbeing and wildlife populations (changes expected to be captured at the end of year 3). However the project monitoring and evaluation system will enable us to capture these changes by the end of the project.

4. Contribution to SDGs

SDG 1 (no poverty) – the project is contributing to reducing poverty in intervention sites by providing poor households an opportunity to earn revenues and move up the livestock ladder.

SDG 2 (zero hunger) – the project is contributing to reducing hunger in intervention sites by increasing the availability of affordable domestic meat at household and market level.

SDG 3 (good health and wellbeing) – the project is contributing to household and children health by providing them a source of domestic meat, thereby increasing the amount of protein in their diet, which contributes to children brain and body development. The project is also contributing to increasing beneficiary wellbeing by increasing their revenues and ability to provide for their family.

SDG 5 (gender equality) and 10 (reduced inequalities) – the project is contributing through specific microfinance targeting and financial capacity building of men and women; in fact the project has even more women than men beneficiaries.

SDG 8 (decent work and economic growth) – the project is contributing to economic growth in intervention sites by providing community members the opportunity to develop revenue-generating businesses.

SDG 11 (sustainable cities and communities) – the project is contributing to make rural communities adopt sustainable livelihoods.

SDG 13 (climate action) – the project is contributing to reducing deforestation by supporting law enforcement efforts in KBNP, aiming to reduce incidences of illegal wood exploitation.

SDG 15 (life on land) – the project is contributing to conserving biodiversity and protected threatened species.

5. Project support to the Conventions, Treaties or Agreements

During the project year 1, work was conducted to support the government of DRC in meeting its responsibilities towards the Convention on Biological Diversity (Goals A, B and C), by contributing to achieving Aichi Targets 1, 4, 5, 11 and 12.

Target 1: ICCN conducted an awareness raising campaign with traditional leaders and local government officials in a key mining zone near the intervention site of Kasheke. Key topics were values of biodiversity, the environmental laws concerning mining and bushmeat hunting and the benefits of sustainable natural resource use.

Target 4: The project provided micro-credits to 90 beneficiaries including ex-hunters, bushmeat traders and illegal charcoal producers to start new sustainable businesses. Beneficiaries were also provided with financial literacy and entrepreneurship training. The support of food rations for park rangers has helped to increase law enforcement efforts within the park, helping to prevent hunting from depleting wildlife populations.

Targets 5 and 12: Over 2,137 ranger-day patrols were conducted in the park around intervention sites to deter illegal forest clearing to reduce the rate of forest loss and protect vulnerable (L'Hoest monkey, owl-faced monkey), endangered (eastern Chimpanzee) and critically endangered (Grauer's gorilla) species.

Target 11: WCS has been working closely with ICCN in the implementation of activities, in M&E and in reporting, aiming to build ICCN's capacity to improve park management.

6. Project support to poverty alleviation

The project set out to directly improve the wellbeing and household nutrition of at least 600 poor households in rural DRC by the end of year 3. Targeted households are provided with access to micro-credit, training in guinea pig husbandry, and micro-entrepreneurship development. This combination of activities will increase household access to proteins and help kick-start sustainable revenue-generating businesses. Wellbeing surveys (BNS) are part of the project strategy to help target households and measure changes over the years. During year 1 already 90 households were provided with credit and training, which will be scaled up to 300 by year 2. Wellbeing scores in Kajeje beneficiaries (obtained through BNS) were $49\% \pm 9\%$ and nutrition indices in Kajeje (obtained through household meat consumption surveys) were 0.63 ± 0.34 when the project started, we expect these numbers to rise after 2 years of intervention.

Guinea pig breeding is an ideal livelihood option for poor households as it has low start-up and upkeep costs and guinea pigs have high reproduction rates, high levels of protein and the ability to attract high, but affordable prices in remote areas. As guinea pigs are the lowest rung of the livestock ladder in eastern DRC, this project will act as a stepping stone for the poorest households to acquire certain levels of wealth and eventually upgrade to more complex livestock systems or other income-generating opportunities. As guinea pig meat will become more available in target sites, the project will also benefit the wider community through better protein availability and food security. In the first year of the project, we monitored a 378% increase in the number of guinea pigs produced by beneficiaries. Beneficiaries used their credit to buy more females from better stock, build larger and better enclosures to keep them and used their training in husbandry to increase their stock reproductive rates.

7. Project support to Gender equity issues

Beneficiaries of the project are targeted to ensure gender integration and equity. 75% of the selected beneficiaries are women, and selected men are bushmeat hunters.

Unlike other livestock (chickens, goats or pigs for example) women do not need permission from their husbands or the male head of household to keep, prepare, eat or sell guinea pigs. The day to day husbandry of guinea pigs is often conducted by youth or children under the supervision of their mothers, making it a popular activity for students to help pay for their school fees. The project also targeted consumers of guinea pig meat, providing cooking classes to teach guinea pig producers and restaurateurs popular guinea pig recipes. Workshops held to connect the actors along the guinea pig value chain included market sellers, who are often women.

Gender word count in the document:

Gender	Women/ woman	Men/ man	Female	Male	Bantu	Pygmy	Indigenous
7	34	20	4	5	-	-	-

8. Monitoring and evaluation

A monitoring and evaluation plan was developed at the beginning of the project and social surveys developed to monitor various activities. This included WCS's Basic Necessities Survey, household meat consumption surveys, household guinea pig production surveys, and market and restaurants surveys. The monitoring plan reflects clearly the original proposal and no change has been made over the reporting period. We would, however like to propose a change in Indicator 0.3 (household protein consumption) because it is not an efficient use of resources. Instead we are suggesting a broader indicator to cover change in protein (particularly bushmeat) consumption frequency.

WCS has worked to transfer social survey forms to the smartphone application Kobo toolbox (Open Data Kit platform <http://www.kobotoolbox.org>), which is being used to collect data in the field and upload them to a centralized database. This approach has been hugely beneficial in saving time and money as data entry is not needed, data is already cleaned and can be uploaded while the survey teams are still in the field, allowing them to move on to other activities as soon as surveys are completed.

9. Lessons learnt

Adaptive management to ensure project success

In the pilot village of Kajeje we found that although many households already had some guinea pigs as livestock, their houses were so small that they would not be able to apply the improved guinea pig husbandry techniques they were taught, which included giving guinea pigs their own space with separated compartments for males and females to control breeding. This unforeseen lack of space was partly due to the fact that the project beneficiaries include some of the poorer households in intervention sites, who are less likely to have space available. After discussing the problem with WCS, UECCO and the project beneficiaries, it was decided that breeding guinea pigs outside of the house would be too risky due to high incidences of theft in the region. Therefore the best solution would be to build a small livestock enclosure using local materials near the beneficiaries' homes, which would cost a total of 100 USD. The costs incurred by the need to build a separate structure meant that the initial 100 USD of micro-credit that beneficiaries were going to receive would be insufficient; therefore it was decided to increase the micro-credit amount from 100 USD to 150 USD in Kajeje with USAID match funding. The time needed to construct the enclosure has not affected and will not affect the project timescale. While all beneficiaries in Kajeje built an enclosure for their guinea pigs, each beneficiary turned out to have interpreted the 'model' husbandry house in their own way, most of which worked well, however some needed additional support. It was recommended that for the following villages where the project will be implemented UECCO would support closely the construction of a model husbandry house so that all beneficiaries could see it first-hand and replicate it.

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

No issues or particular comments were raised from the semi-annual report.

11. Other comments on progress not covered elsewhere

All comments on progress are made in other sections. Difficulties encountered are covered in Section 3.

12. Sustainability and legacy

WCS has been working closely with UECCO to build their administrative and finance management skills by giving them training at the beginning of the project and regular technical support. WCS's project head of finance and admin provided UECCO with administrative tools that they were lacking, and WCS has helped UECCO during reporting periods so that they would need minimal support for reporting from the project year 2 onwards.

The exit strategy from the original proposal is still valid. The project works closely with the existing network of Community Conservation Committees (CCCs) which also channels other activities from the ICCN besides Darwin project activities, ensuring that the CCCs will continue to function after the project ends.

Because the credit-based enterprise of the project beneficiaries requires guinea pig keepers to buy their own guinea pigs, they take ownership of their investment. By having developed improved financial and husbandry capacity during the project, they will continue to grow their

livestock enterprise in the future. The rotations of micro-credit funds means that as the project continues, the number of beneficiaries increases each year as preliminary beneficiaries reimburse their credit. The CCCs will be able to sustain this rotational credit after the duration of the project if credit recipients consistently reimburse their credit.

13. Darwin Identity

During the start of the project a communication plan was developed which highlighted the list of communication products to be developed with appropriate branding.

Project partners have all made an effort to promote the image of the project with sign boards at project sites, banners during meeting, t-shirts provided to community participants with logos of the park, the partners, DFID and the Darwin Initiative.

With matching USAID funds, WCS and the environmental education NGO International Communication and Education Fund (INCEF) conducted a month-long training in November 2016 for ICCN and local conservation NGO staff on developing their own environmental education films with the aim of producing locally relevant films to be shown to communities in their local language. WCS and ICCN plan to show films produced during the training and films to be produced in "Darwin Initiative villages".

14. Project Expenditure

Table 1 Project expenditure during the reporting period (1 April 2016 – 31 March 2017)

Project spend (indicative) since last annual report	2016/17 Grant (£)	2016/17 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			15%	We added more of Charlotte Spira's time to cover her M/E time.
Consultancy costs			-1%	
Overhead Costs			22%	These extra costs included added fuel due to the new vehicle and bank fees related to its purchase.
Travel and subsistence			3%	
Operating Costs			3%	
Capital items (see below)			-9%	The vehicle cost less than anticipated.
Monitoring & Evaluation			21%	M/E was slightly more (£ 460) than anticipated.
Others (see below)			-39%	Spending was less than anticipated.
TOTAL			0%	

The original budget was modified during Year 1 in order to purchase of a vehicle to support movements throughout the project area. This request was sent to the Darwin team and approved.

Annex 1. Report of progress and achievements against Logical Framework for Financial Year 2015-2016

Project summary	Measurable Indicators	Progress and Achievements April 2015 - March 2016	Actions required/planned for next period
<p>Impact</p> <p>Bushmeat hunting is no longer a threat to wildlife populations and endemic species in KBNP as a result of more effective law enforcement and reduced demand for bushmeat.</p>		<p>The project has already started to increase the availability of domestic meat in the intervention area, which will ultimately reduce the demand for bushmeat and thereby reduce bushmeat hunting in KBNP.</p>	
<p>Outcome Reducing hunting pressure on KBNP's wildlife, while improving the wellbeing of 600 marginalised households, through increasing the availability of domestic meat and replacing demand for bushmeat in mining villages.</p>	<p>0.1. By the end of year 3, signs of bushmeat hunting have decreased by at least 25% within a 5km buffer inside the park boundary compared to early 2016 baselines.</p>	<p>Average increase of 28% in bushmeat hunting sign encounter rates from prior the project start.</p>	<p>Continued monitoring</p>
	<p>0.2. By the end of year 3, there has been a 10% increase in encounter rates of signs of key large mammal and primate species, compared to early 2016 baselines.</p>	<p>Average increase of 21% in wildlife sign encounter rates from prior the project start.</p>	<p>Continued monitoring</p>
	<p>0.3. By the end of year 3, domestic meat has become the main source of protein intake for at least 200 male and female-headed households in intervention sites.</p>	<p>Availability of domestic meat increased by 378% in the Kajeje project site over the course of year 1. Estimated 35.4% of households in intervention sites consume bushmeat.</p>	<p>Suggested change to reduced frequency of bushmeat consumption in village.</p>
	<p>0.4. By the end of year 3, there has been a 50% increase in the number of guinea pigs available in markets and restaurants compared to the number available at the start of the project.</p>	<p>Baselines determined, numbers to be estimated again in each site after 12 months of project implementation,</p>	<p>Continued monitoring</p>
	<p>0.5. By the end of year 3, at least 600 households in target communities have increased indices for wellbeing compared to baseline data collected at the start of the project when selecting</p>	<p>Average beneficiaries' well-being score at the project start = 49%</p>	<p>Continued monitoring</p>

	project beneficiaries.		
	0.6. By the end of year 3, at least 300 beneficiary households have increased nutrition indices compared to year 1 baselines.	Average beneficiaries' nutrition index at the start of the project = 0.63	Continue to monitor nutrition index on an annual basis through household surveys (BNS and meat consumption).
Output 1. Project beneficiaries have the financial and technical capacity to set up and manage small enterprises.	1.1. By the end of year 1, 5 Community Conservation Committees (CCCs) have been established (one per intervention site).	5 CCCs established (one in each intervention site).	
	1.2. By the end of year 1, 200 guinea pig keepers and micro-credit beneficiaries have received training in small enterprise development and financial literacy. This will have increased to 300 guinea pig keepers and 300 micro-credit beneficiaries by the end of year 3, of which 60% will be women.	30 guinea pig keepers and micro-credit beneficiaries have received training in small enterprise development and financial literacy in year 1. 120 more are going to receive training in the first quarter of year 2.	
	1.3. By the end of year 2, at least 50% of beneficiary guinea pig keepers have started micro-enterprises and are selling guinea pigs.	17 beneficiaries have started selling guinea pigs.	
	1.4. By the end of year 3, at least 100 hunters have diversified their livelihoods as a result of the micro-credit scheme compared to year 1 baseline.	16 beneficiaries are ex-hunters.	
	1.5. By the end of year 3, 600 beneficiaries (micro-credit recipients and guinea pig keepers receiving training in guinea pig marketing) have increased their revenues by at least 25% by having set up micro-enterprises, compared to year 1 baseline.	Beneficiaries' wealth index at the start of the project = 2,478,009 Congolese francs	

<p>Activity 1.1. Set up Community Conservation Committees: WCS and ICCN visit target communities where village-wide meetings are held to (1) identify all social groups in the village (main socio-professional categories, e.g. teachers, natural resource users, local authorities, health workers, religious representatives, etc. and women, youth and pygmies if they are in the village); and (2) each of the identified social groups then elects one representative to become a member of the CCC.</p>	<p>Completed. Community Conservation Committees (CCCs) established in all 5 project sites.</p>				
<p>Activity 1.2. The CCCs sign partnership contracts and loan agreements with ICCN.</p>	<p>Partnership contracts signed between CCCs and ICCN in all project sites, loan agreement signed in 3 sites. Next period: sign the loan agreements in the 2 other sites.</p>				
<p>Activity 1.3. ICCN, WCS and CCC members select micro-credit beneficiaries: CCCs receive applications from community members willing to receive micro-credit and successful applicants are selected.</p>	<p>30 beneficiaries per site were selected (total of 150 selected beneficiaries). Next period: provide micro-credit.</p>				
<p>Activity 1.4. ICCN and WCS train micro-credit beneficiaries in financial literacy and micro-entrepreneurship development.</p>	<p>Completed in 3 of 5 sites. Next period: provide training to beneficiaries in the 2 other sites.</p>				
<p>Activity 1.5. Provide credit to beneficiaries: WCS provides micro-credit funds to the CCCs and the CCCs allocate credit to selected beneficiaries.</p>	<p>Completed in 3 of 5 sites. Next period: provide micro-credit to the 2 other sites.</p>				
<p>Activity 1.6. ICCN, WCS and the CCCs monitor the micro-credit schemes.</p>	<p>Completed in 3 of 5 sites. Next period: provide and monitor micro-credit to the 2 other sites.</p>				
<p>Output 2. Improved cavy production and breeding techniques in target sites.</p>	<table border="1"> <tr> <td data-bbox="593 868 1086 1075"> <p>2.1. By the end of year 2, guinea pig mortality rates have decreased by at least 20% in households that have received guinea pig husbandry training, compared to year 1 baseline.</p> </td> <td data-bbox="1086 868 2080 1075"> <p>Guinea pig mortality at the end of year 1 in Kajeje is 44%. Indicator value to be estimated in the other sites.</p> </td> </tr> <tr> <td data-bbox="593 1075 1086 1251"> <p>2.2. By the end of year 3, the number of guinea pigs per participating household has reached at least 30 individuals, compared to early 2016 baseline.</p> </td> <td data-bbox="1086 1075 2080 1251"> <p>Early 2016 baseline: on average 8.4 guinea pigs per beneficiary household. At the end of March 2017 = on average 23.3 guinea pigs per beneficiary household.</p> </td> </tr> </table>	<p>2.1. By the end of year 2, guinea pig mortality rates have decreased by at least 20% in households that have received guinea pig husbandry training, compared to year 1 baseline.</p>	<p>Guinea pig mortality at the end of year 1 in Kajeje is 44%. Indicator value to be estimated in the other sites.</p>	<p>2.2. By the end of year 3, the number of guinea pigs per participating household has reached at least 30 individuals, compared to early 2016 baseline.</p>	<p>Early 2016 baseline: on average 8.4 guinea pigs per beneficiary household. At the end of March 2017 = on average 23.3 guinea pigs per beneficiary household.</p>
<p>2.1. By the end of year 2, guinea pig mortality rates have decreased by at least 20% in households that have received guinea pig husbandry training, compared to year 1 baseline.</p>	<p>Guinea pig mortality at the end of year 1 in Kajeje is 44%. Indicator value to be estimated in the other sites.</p>				
<p>2.2. By the end of year 3, the number of guinea pigs per participating household has reached at least 30 individuals, compared to early 2016 baseline.</p>	<p>Early 2016 baseline: on average 8.4 guinea pigs per beneficiary household. At the end of March 2017 = on average 23.3 guinea pigs per beneficiary household.</p>				
<p>Activity 2.1. Select current cavy keepers and new cavy keepers (micro-credit beneficiaries) who will receive husbandry training: the CCCs will receive applications from current cavy keepers willing to receive husbandry training and assistance, and from new individuals willing to receive micro-credit to start a cavy micro-enterprise. Members of the CCCs and WCS then select cavy breeding</p>	<p>30 beneficiaries per site were selected (total of 150 selected beneficiaries). Next period: provide guinea pig husbandry training and regular assistance.</p>				

beneficiaries.		
Activity 2.2. UECCO provides training to cavy breeding beneficiaries in improved cavy production, focusing on good husbandry practices and breeding management.		Completed in 1 of 5 sites. Next period: provide guinea pig husbandry training to beneficiaries in the 4 other sites.
Activity 2.3. UECCO and WCS train cavy breeders in cavy-based micro-enterprise development.		Completed in 1 of 5 sites in year 1. To be completed in the 4 other sites in first quarter of year 2.
Activity 2.4. UECCO monitors and provides technical support to cavy breeding beneficiaries for cavy husbandry and production.		Conducted in 1 of 5 sites in year 1. To be conducted in all sites during year 2.
Output 3. Increased availability and adoption of cavy meat by communities in target sites.	3.1. Each year, all beneficiary guinea pig keepers will have an average of 25% increase in the proportion of domestic meat in their household diet.	In Kajeje beneficiary households, average of 20.4% of meals include meat, of which 46% is guinea pig meat. Data to be collected in other sites in the first quarter of year 2.
	3.2. By the middle of year 2, at least 25% of local restaurants in intervention sites offer guinea pig dishes on at least a weekly basis.	9% of local restaurants surveyed in all project sites combined offer guinea pigs dishes at the project start.
	3.3. By the end of year 3, the number of guinea pigs available in markets has increased by at least 50% compared to year 1 baseline.	Estimated 200 guinea pigs available in markets in all intervention sites combined at the project start.
Activity 3.1. UECCO holds cavy cooking classes - 2 sessions per site - with restaurant cooks, women who keep covies and women who do not keep covies.		First cavy cooking classes held in Kajeje. Other sessions to be conducted in the 4 other sites.
Activity 3.2. UECCO holds meetings with cavy breeders, meat traders and restaurateurs to connect cavy producers with sellers.		First meeting held in Kajeje where cavy producers, sellers and restaurateurs met. Other meetings to be held in the 4 other sites.
Activity 3.3. UECCO develops and distributes pro-cavy materials to CCCs and to individuals attending awareness raising events in intervention sites.		Posters and t-shirts distributed to project beneficiaries in Kajeje. More materials will be developed and distributed in all 5 project sites.
Activity 3.4. All project partners carry out annual cavy celebration days in each of the five intervention sites.		No cavy celebration day held in year 1. Celebration days to be held in all project sites in year 2.
Activity 3.5. WCS trains community members in research techniques and together conduct market research on covies to monitor changes in protein availability and consumption.		In year 1 WCS trained two university students to conduct market surveys.

Output 4. Law enforcement and awareness raising activities effectively deter bushmeat hunting and the establishment of new mining sites in KBNP.	4.1. From the end of year 1 onwards, no new mine sites are established within the park's highland sector.	4 new mine sites established in the park's highland sector in year 1 compared to year 0.
	4.2. At the end of year 2, 25% more individuals surveyed at intervention sites state that they are discouraged from hunting in the park due to the risk of being caught and prosecuted, compared to year 1 baseline data collected at the start of the project.	Not measured yet. To be done in the first quarter of year 2.
	4.3. By the end of year 3, 90% of the beneficiaries who had already been arrested for bushmeat hunting prior to the project period did not get arrested again.	At the end of year 1, 100% of the beneficiaries who are ex-hunters did not get arrested for hunting bushmeat.
	4.4. By the end of year 3, at least 1000 people including all beneficiaries will be aware of the impacts of bushmeat hunting on wildlife populations.	Not measured yet. To be done in the first quarter of year 2.
Activity 4.1. ICCN rangers conduct patrols using SMART, collecting data on wildlife sign encounters and on illegal human activities.		2,137 patrols conducted in year 1 with USAID and KfW match funding. Rangers collected SMART data on wildlife sign encounters and illegal human activities. This will be continued during the next period.
Activity 4.2. ICCN and WCS analyse results from SMART data to adapt patrol effort and orientate patrols.		ICCN and WCS analysed SMART data on a quarterly basis to adapt ranger patrol efforts. This will be continued during the next period.
Activity 4.3 ICCN shows environmental films and communicates environmental laws.		Not completed in year 1, to be conducted in the first quarter of year 2.

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: Bushmeat hunting is no longer a threat to wildlife populations and endemic species in KBNP as a result of more effective law enforcement and reduced demand for bushmeat.</p> <p>(Max 30 words)</p>			
<p>Outcome: (Max 30 words)</p> <p>Reducing hunting pressure on KBNP's wildlife, while improving the wellbeing of 600 marginalised households, through increasing the availability of domestic meat and replacing demand for bushmeat in mining villages.</p>	<p>0.1. By the end of year 3, signs of bushmeat hunting have decreased by at least 25% within a 5km buffer inside the park boundary compared to early 2016 baselines.</p> <p>0.2. By the end of year 3, there has been a 10% increase in encounter rates of signs of key large mammal and primate species, compared to early 2016 baselines.</p> <p>0.3. By the end of year 3, domestic meat has become the main source of protein intake for at least 200 male and female-headed households in intervention sites.</p> <p>0.4. By the end of year 3, there has been a 50% increase in the number of guinea pigs available in markets and restaurants compared to the number available at the start of the project.</p> <p>0.5. By the end of year 3, at least 600 households in target communities have increased indices for wellbeing compared to baseline data collected at the start of the project when selecting project beneficiaries.</p>	<p>0.1. Results from SMART patrols.</p> <p>0.2. Large mammal sign encounter rates collected through SMART patrols.</p> <p>0.3. Household consumption surveys.</p> <p>0.4. Market and restaurant surveys.</p> <p>0.5. Basic Necessities Surveys (BNS).</p>	<p>Hunting 'leakage' from non-participating areas does not increase. This will be tackled by law enforcement efforts that will spread beyond target areas.</p> <p>The number of patrols using SMART will be sufficient to capture changes in mammal sign encounter rates. ICCN will make sure that patrolling rangers use SMART to ensure adequate levels of data collection.</p> <p>Our survey methods are adequate enough to accurately estimate bushmeat vs domestic meat consumption. WCS has the necessary research capacity and tools to collect sensitive data.</p> <p>Guinea pig production is sufficient for beneficiaries to sell part of their guinea pig supply. UECCO will provide consistent support to ensure guinea pig production is optimal.</p> <p>Improved nutrition and increased revenues are sufficient to improve wellbeing. BNS surveys conducted with communities living around KBNP's high altitude sector showed that household wellbeing is positively affected by the intake of animal proteins, as well as having the financial means to access various basic goods and services. It is therefore likely that this assumption will be met.</p>

	0.6. By the end of year 3, at least 300 beneficiary households have increased nutrition indices compared to year 1 baselines.	0.6. Beneficiary surveys. A nutrition index will be developed based on household composition, frequency of meals and protein consumption.	Increased availability of domestic meat will be sufficient to improve nutrition. Awareness raising and guinea pig husbandry training will aim to encourage beneficiaries to manage their guinea pig stocks so that their households are able consume them at an optimum rate.
Outputs: 1. Project beneficiaries have the financial and technical capacity to set up and manage small enterprises.	1.1. By the end of year 1, 5 Community Conservation Committees (CCCs) have been established (one per intervention site).	1.1. WCS records; Contracts and agreements signed between CCCs and the ICCN.	Community members are willing to form CCCs. Much effort will be put into establishing CCCs to ensure community members understand its role and to ensure that it synchronizes and makes use of existing structures.
	1.2. By the end of year 1, 200 guinea pig keepers and micro-credit beneficiaries have received training in small enterprise development and financial literacy. This will have increased to 300 guinea pig keepers and 300 micro-credit beneficiaries by the end of year 3, of which 60% will be women.	1.2. Project partner training records and reports; micro-credit allocation records.	Training is sufficient for beneficiaries to successfully set up micro-enterprises. Technical support will continue after the training has been completed to help beneficiaries counter unforeseen difficulties.
	1.3. By the end of year 2, at least 50% of beneficiary guinea pig keepers have started micro-enterprises and are selling guinea pigs.	1.3. Training records; Guinea pig beneficiary surveys.	Training is sufficient for beneficiaries to have excess guinea pigs available for sale. The UECCO and WCS will continue to monitor guinea pig micro-enterprises to provide technical support to help counter any unforeseen problem after training.
	1.4. By the end of year 3, at least 100 hunters have diversified their livelihoods as a result of the micro-credit scheme compared to year 1 baseline.	1.4. Micro-credit beneficiary surveys.	Hunters will be interested and willing to participate in micro-credit schemes. Existing WCS-ICCN micro-credit schemes around KBNP have been successful at attracting hunters, although have shown that community discussions are central in encouraging hunters to participate.
	1.5. By the end of year 3, 600 beneficiaries (micro-credit recipients and guinea pig keepers receiving training in guinea pig marketing) have increased their revenues by at least 25% by having set up micro-enterprises, compared to	1.5. Microcredit and guinea pig beneficiary surveys.	Trainings and micro-credits are sufficient for beneficiaries to set up micro-enterprises and generate revenues. Technical support and beneficiary meetings will be held to beneficiaries after training sessions to assist financial

	year 1 baseline.		literacy and micro-enterprise development.
2. Improved guinea pig production and breeding techniques in target sites.	2.1. By the end of year 2, guinea pig mortality rates have decreased by at least 20% in households that have received guinea pig husbandry training, compared to year 1 baseline.	2.1. Guinea pig production figures; Guinea pig beneficiary surveys.	Training is sufficient for beneficiaries to successfully breed guinea pigs. UECCO has substantial experience in training, however will provide regular technical support for breeders to reduce guinea pig mortality rates.
	2.2. By the end of year 3, the number of guinea pigs per participating household has reached at least 30 individuals, compared to early 2016 baseline.	2.2. Guinea pig beneficiary surveys	Beneficiaries will have a continued interest in the project and training will be sufficient for beneficiaries to successfully breed guinea pigs. UECCO will provide regular technical support and visits to ensure breeding is optimal and to discuss with beneficiaries any concerns or issues relating to guinea pig breeding.
3. Increased availability and adoption of guinea pig meat by communities in target sites.	3.1. Each year, all beneficiary guinea pig keepers will have an average of 25% increase in the proportion of domestic meat in their household diet.	3.1. Guinea pig beneficiary surveys.	Beneficiaries eat their guinea pigs. Guinea pigs are consumed in South Kivu by households who raise them; however awareness will be raised on the health benefits of guinea pigs to encourage new beneficiary households to consume their guinea pigs.
	3.2. By the middle of year 2, at least 25% of local restaurants in intervention sites offer guinea pig dishes on at least a weekly basis.	3.2. Restaurant surveys.	Guinea pig supply will reach restaurants and cooking classes will be sufficient for cooks to prepare guinea pig meat. WCS and UECCO will work with guinea pig keepers to connect them with restaurateurs to help ensure there is a strong link.
	3.3. By the end of year 3, the number of guinea pigs available in markets has increased by at least 50% compared to year 1 baseline.	3.3. Market surveys.	Training is sufficient for beneficiaries to have excess guinea pigs available for sale. The UECCO and WCS will continue to monitor guinea pig micro-enterprises to provide technical support to help counter any unforeseen problem after training.
4. Law enforcement and awareness raising activities effectively deter bushmeat hunting and the establishment	4.1. From the end of year 1 onwards, no new mine sites are established within the park's highland sector.	4.1. SMART patrol data.	ICCN law enforcement efforts will be sufficient to deter the establishment of new mine sites.

of new mining sites in KBNP.

	4.2. At the end of year 2, 25% more individuals surveyed at intervention sites state that they are discouraged from hunting in the park due to the risk of being caught and prosecuted, compared to year 1 baseline data collected at the start of the project.	4.2. Household surveys	
	4.3. By the end of year 3, 90% of the beneficiaries who had already been arrested for bushmeat hunting prior to the project period did not get arrested again.	4.3. ICCN arrest records.	Law enforcement is effectively conducted and monitored around intervention sites and efforts are sufficient to deter bushmeat hunting. WCS provides ICCN with technical assistance for SMART and will continue to do so throughout the project to help with monitoring and adaptive management of patrols.
	4.4. By the end of year 3, at least 1000 people including all beneficiaries will be aware of the impacts of bushmeat hunting on wildlife populations.	4.4. Household surveys.	

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

1.1 Set up Community Conservation Committees: WCS and ICCN visit target communities where village-wide meetings are held to (1) identify all social groups in the village (main socio-professional categories, e.g. teachers, natural resource users, local authorities, health workers, religious representatives, etc. and women, youth and pygmies if they are in the village); and (2) each of the identified social groups then elects one representative to become a member of the CCC.

1.2 The CCCs sign partnership contracts and loan agreements with ICCN.

1.3 ICCN, WCS and CCC members select micro-credit beneficiaries: CCCs receive applications from community members willing to receive micro-credit and successful applicants are selected.

1.4 ICCN and WCS train micro-credit beneficiaries in financial literacy and micro-entrepreneurship development.

1.5 Provide credit to beneficiaries: WCS provides micro-credit funds to the CCCs and the CCCs allocate credit to selected beneficiaries.

1.6 ICCN, WCS and the CCCs monitor the micro-credit schemes.

2.1 Select current guinea pig keepers and new guinea pig keepers (micro-credit beneficiaries) who will receive husbandry training: the CCCs will receive applications from current guinea pig keepers willing to receive husbandry training and assistance, and from new individuals willing to receive micro-credit to start a guinea pig micro-enterprise. Members of the CCCs and WCS then select guinea pig breeding beneficiaries.

2.2 UECCO provides training to guinea pig breeding beneficiaries in improved guinea pig production, focusing on good husbandry practices and breeding management.

2.3 UECCO and WCS train guinea pig breeders in guinea pig-based micro-enterprise development.

2.4 UECCO monitors and provides technical support to guinea pig breeding beneficiaries for guinea pig husbandry and production.

- 3.1** UECCO holds guinea pig cooking classes - 2 sessions per site - with restaurant cooks, women who keep guinea pigs and women who do not keep guinea pigs.
 - 3.2** UECCO holds meetings with guinea pig breeders, meat traders and restaurateurs to connect guinea pig producers with sellers.
 - 3.3** UECCO develops and distributes pro-guinea pig materials to CCCs and to individuals attending awareness raising events in intervention sites.
 - 3.4** All project partners carry out annual guinea pig celebration days in each of the five intervention sites.
 - 3.5** WCS trains community members in research techniques and together conduct market research on guinea pigs to monitor changes in protein availability and consumption.
-
- 4.1** ICCN rangers conduct patrols using SMART, collecting data on wildlife sign encounters and on illegal human activities.
 - 4.2** ICCN and WCS analyse results from SMART data to adapt patrol effort and orientate patrols.
 - 4.3** ICCN shows environmental films and communicates environmental laws.

Annex 3 Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
6A	Number of people to receive other forms of education/training	Men		67			67	
		Women		41			41	
7	Number of (e.g., different types - not volume - of material produced) training materials to be produced for use by host country			4			4	5
12A	Number of computer based databases to be established and handed over to the host country			5			5	
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work	USAID		£85,000				

Table 2 Publications

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

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



Department for International Development



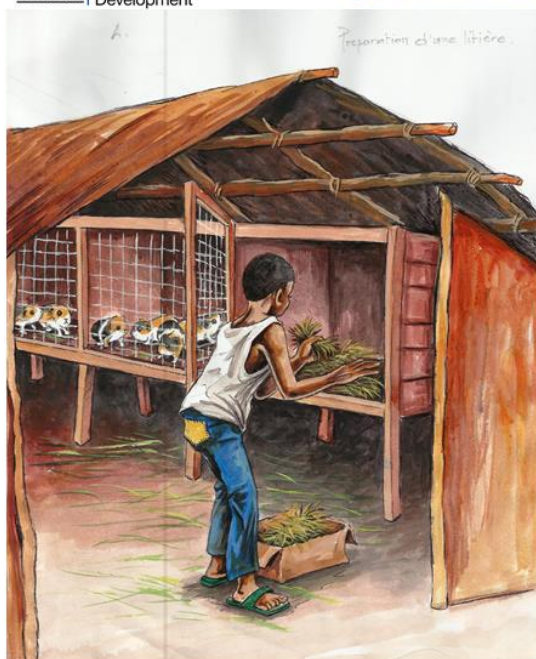
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Checklist for submission

	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.	X
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.	N/A
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	N/A
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	