



## Darwin Initiative – Final Report

### Darwin project information

Project Reference	18-014
Project Title	Ecosystem-wide forest conservation in DRC using okapi as a flagship
Host country(ies)	Democratic Republic of Congo (DRC)
Contract Holder Institution	Zoological Society of London (ZSL)
Partner Institution(s)	<i>Institut Congolais pour la Conservation de la Nature (ICCN)</i>
Darwin Grant Value	£299,028
Start/End dates of Project	1 April 2010-31 December 2013 (extended from 30 March 2013)
Project Leader Name	Dr Noëlle Kümpel
Project Website	<a href="http://www.zsl.org/okapi">www.zsl.org/okapi</a>
Report Author(s) and date	Noëlle Kümpel, Alex Quinn, Elise Queslin 31/3/14

## 1 Project Rationale

The okapi, *Okapia johnstoni*, is an elusive rainforest giraffid endemic to the tropical forests of central/north-eastern Democratic Republic of Congo (DRC). It is a national icon, featuring on both the logo of ICCN (*Institut Congolais pour la Conservation de la Nature*; the government conservation authority) and the national currency. However this charismatic flagship species is little-studied and remains poorly known. Despite being protected by national and international laws, the limited data available at the start of the project suggested that the okapi is highly threatened by hunting for meat and its skin, and by habitat loss for development and an expanding human population, and that its IUCN Red List status of 'Near Threatened' may be too conservative.

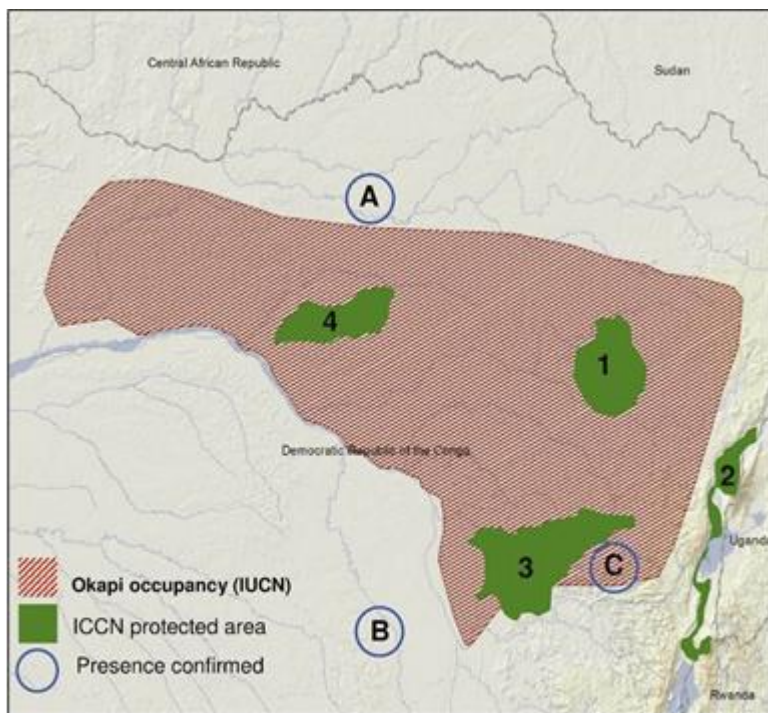
At the time of planning this project, in 2008/2009, DRC was emerging from over a decade of civil conflict, during which period the capacity of ICCN to manage and protect the forests okapi inhabit had been substantially reduced. Unfortunately, this period of relative calm was short-lived, and the conflict has fluctuated for various reasons across much of the okapi's range. Increasing human population densities and poverty, compounded by resettlement of displaced peoples and movement of rebels, continues to exert immense pressure on forest resources through deforestation (through slash-and-burn shifting cultivation), forest degradation (for charcoal, timber, fuelwood and mining) and hunting (in particular for elephants/ivory).

ZSL started working to support ICCN in Virunga National Park – Africa's oldest park and first UNESCO natural World Heritage Site – in 2001, exactly 100 years after being involved in the initial discovery of the okapi in this very park. The okapi type specimen came from the Semliki-Watalinga forest in northern Virunga National Park via ZSL Fellow Sir Harry Johnston and the species was scientifically described at a meeting of the Society in 1901. Okapi have also long been held at ZSL London Zoo. Revitalising its long history with the species, in 2008, ZSL and ICCN conducted a joint okapi-focused survey in the Watalinga forest and obtained the first pictures of okapi in the wild via camera trap. This study confirmed that while okapi were still present in this part of the park, the eastern limit of their range, the population was likely to be small and fragmented<sup>1</sup>.

<sup>1</sup> Nixon, S. and Lusenge, T. (2008). Conservation status of okapi in Virunga National Park, DRC. ZSL Conservation Report No. 9, Zoological Society of London (ZSL), London

Following this work, a multi-stakeholder meeting was organised by ZSL and ICCN in October 2008 to disseminate the data, discuss the results and propose a set of recommendations for the conservation of okapi in and around Virunga National Park. It was generally agreed at the workshop that more up-to-date information on okapi abundance, distribution and threats at a range-wide level was needed in order to reassess the conservation status and determine the best way to protect the species as a whole.

The 2008 IUCN Red List assessment classed the species as 'Near Threatened'<sup>2</sup>. This conclusion was however based on data collected up to 1998 (East 1999; Hart 2013) and key to the assessment was that the large population in the Okapi Wildlife Reserve (RFO), a protected area at the core of its range and recognised as critical for the okapi's long term survival, remained stable. However, a survey report published in 2009 showed a 43% decline in the RFO population over a period of 10 years<sup>3</sup>. The Red List assessment was therefore felt to be unrepresentative of the situation on the ground and a revised assessment was clearly needed.



**Figure 1. Map showing the area believed to be occupied by okapi at the start of the project (adapted from IUCN, 2008). ICCN protected areas are shown in green. Virunga National Park is labelled 2, and the Okapi Wildlife Reserve (RFO) is labelled 1. See maps in okapi conservation strategy (attached as listed in annex 7) for updated range at the end of the project.**

- 1) Okapi Faunal Reserve 2) Virunga NP 3) Maiko NP 4) Rubi-Tele Reserve  
 A) Bili-Akiti B) Lomami C) Usala

As a result of these concerns, ZSL worked with partners across the range in DRC and internationally to develop a new initiative focusing on the conservation of the species across its range. Officially awarded the remit by ICCN in 2011 to develop a species conservation strategy for okapi, ZSL has collaborated with ICCN and other partners working across the species' range, as well as ex situ partners, including the Wildlife Conservation Society (WCS), White Oaks Conservation Center/Gilman International Conservation (GIC)/Okapi Conservation Project (OCP), the Lukuru Foundation, Cardiff University, IUCN, Fauna and Flora International (FFI), Frankfurt Zoological Society (FZS), WWF, Union of Associations for Gorilla Conservation and Community Development in eastern DRC (UGADEC), Fondation KUMU, MONUSCO (UN Peacekeeping Mission in DRC), UN Development Programme (UNDP), UN Habitat, Ministry of Environment, provincial governments and local communities.

<sup>2</sup> IUCN SSC Antelope Specialist Group. *Okapia johnstoni*. In IUCN Red List of Threatened Species 2009. IUCN, 2009

<sup>3</sup> Hart, J., Beyers, R., Grossman, F., Carbo, M., Dino, S. and Kahindo, F. (2009). *La Réserve de Faune Okapi: la distribution et la fréquence de la grande faune et des activités humaines avec une évaluation de l'impact de 10 ans de conflit : 1996-2006*. IMU Technical Report No. 9, Inventory Monitoring Unit, New York : Wildlife Conservation Society

This Darwin Initiative project, supported by related grants from the US Fish and Wildlife Service and the Mohamed bin Zayed Species Conservation Fund, aimed to collate and reanalyse existing okapi data, carry out new surveys inside and outside protected areas to fill in gaps in current knowledge, coordinate new data collection, devise and agree standardised/harmonised methods and where feasible collect dung and other material for okapi genetic analysis and research. These activities aimed to lay the foundation needed to develop the first-ever okapi status review and conservation strategy, which sets out how to manage and where to best conserve the remaining populations of okapi. By focusing on the okapi as Congo's forgotten flagship species, the project also aimed to raise awareness in DRC and internationally of the deteriorating conservation situation. At the same time, the project aimed to find innovative ways of building local community support for okapi and forest conservation through a separately-funded REDD+ project in the Virunga-Hoyo region, and to build the capacity of ICCN at all levels to better manage and protect the forests okapi inhabit.

## 2 Project Achievements

### 2.1 Purpose/Outcome

**Project purpose: 'Forest biodiversity across okapi range conserved through building capacity of park authorities to manage protected areas'.**

The major contribution of the project towards building the capacity of park authorities comes in the form of the first ever okapi conservation strategy. Developed in conjunction with ICCN by all partners working on okapi and endorsed by IUCN, the strategy maps out what needs to be done to conserve the okapi, when and by whom. The full impact of this work will be felt in years to come as ICCN and its partners begin to implement the activities agreed, working towards the strategy's vision that "*Viable populations of okapis, an endemic and flagship species, are conserved sustainably throughout their range for the benefit of present and future generations, in collaboration with all stakeholders, especially local communities, thanks to good governance.*" ZSL and partners carried out a number of biodiversity surveys in the forests across the okapi range, as was possible given the security situation (see section 2.3), which contribute to ongoing monitoring efforts.

A number of capacity-building activities to support work on the ground across the okapi range were planned, but were limited due to severe insecurity within the project focal areas (see 'problems' in section 2.3). We identified continued security as a critical assumption in our logframe and regrettably this assumption did not hold, ultimately forcing us to evacuate our project manager in August 2012 and suspend and cancel certain activities. Anti-poaching patrols and biomonitoring activities were prevented in the okapi (Watalinga) sector of Virunga National Park (at the outset of the project) and halted in the Okapi Wildlife Reserve (in June 2012) by insecurity. Following the evacuation of our project manager, we shifted the emphasis of the project to focus on preparing for and developing the okapi conservation strategy, subsequently working to complete some of the activities agreed in the strategy, including carrying out a Red List reassessment of okapi and ensuring that this reassessment received media attention both globally and within DRC (see attachments listed under 'Media outputs' in annex 7). This change of focus was laid out in our approved change requests dated March 2012, February 2013 and July 2013. We feel that the achievement of these outcomes is particularly important in light of the fatal attack on the Okapi Wildlife Reserve in June 2012 (see section 2.3), helping to demonstrate that such a targeted attack will not succeed in causing long term disruption to conservation efforts. We did however continue to support patrols within the newly-re-established Mt Hoyo Reserve, to the north of Virunga National Park, throughout the project.

Following discussions with IUCN, once the okapi conservation strategy is published, we intend to send a copy to the president of DRC, flagging up the change in the okapi's status and encouraging him to increase efforts to take immediate action to support the actions laid out and prevent further decline in this iconic species for DRC and thus meet his country's obligations under the CBD.

## 2.2 Goal/ Impact: achievement of positive impact on biodiversity and poverty alleviation

**Goal:** Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.

See section 3 for an assessment of the project's impact supporting implementation of the CBD, CITES and CMS. The project also made the following contributions to targets set by ICCN in its 'Stratégie Nationale pour la Conservation de la Biodiversité dans les Aires Protégées de la République Démocratique du Congo' (2012):

Programme 2 – Development of scientific research and biomonitoring. The compilation of the okapi status review, field surveys and the genetic research conducted as part of this project contribute to this objective. As a result, knowledge of the range of the okapi has been significantly improved through this project, making extensive updates to the species range map developed by IUCN in 2008 in the new IUCN 2013 Red List assessment (<http://www.iucnredlist.org/details/full/15188/0>). Biomonitoring protocols, particularly with regard to those for okapi and other cryptic forest ungulate species, are also being improved as a result of technical discussions and analysis conducted as a result of the project and will be instigated for all surveys led by partners WCS within the okapi range, in particular in RFO.

Programme 7 – Political, institutional and socio-economic environment. Through supporting ICCN to lead the development of the conservation strategy and providing financial support to ICCN patrols and staff, the project has contributed to strengthening the institutional capacity of ICCN. The workshop to develop the conservation strategy was hosted by the governor of Orientale province and received his personal support and endorsement, which contains most of the okapi range. The workshop was attended by community chiefs from different areas of the okapi range, and local communities were critical in providing expert knowledge of okapi presence on the ground during ZSL recce surveys. Raising awareness and encouraging people to unite behind the okapi may help to encourage conservation of their forests, if accompanied by financial incentives and/or improved stability, which project partners across the okapi range continue to support and encourage both individually and through the Specialist Group (see below).

Programme 9 – Information, communication and awareness-raising. The upgrading of the okapi to 'Endangered' on the 2013 IUCN Red List has received extensive press/media coverage both globally and in DRC (see section 2.3, annex 5 and 'Media outputs' in annex 7) and was featured in a Twitter question and answer session the same week (28 November 2013) through the @ZSLOfficial account. The conservation strategy includes a thorough review of all okapi knowledge and studies, bringing information that was previously disparate and often not publicly available into one easily accessible place. This information will all be made available on the new IUCN SSC Giraffe and Okapi Specialist Group website ([www.giraffidsg.org](http://www.giraffidsg.org)) once it is up and running; in the meantime, much is available on ZSL's okapi page ([www.zsl.org/okapi](http://www.zsl.org/okapi)).

**Sub goal: Ecosystem-wide conservation of forest biodiversity in DRC using okapi as a flagship across their range, with communities integrated into and benefiting from forest conservation.**

The project has had a positive impact on biodiversity conservation. The upgrading of okapi to 'endangered' was the lead story in the IUCN Red List update press release in November 2013 and should help garner support for its forest habitat. The upgrade in the okapi's status meant that a proposal to the IUCN SOS fund could be submitted, and a joint elephant-okapi project with WCS in RFO has been accepted. Fondation Segré similarly expressed interest in funding okapi conservation on the ground and a proposal has been submitted. Thus the raised profile of the okapi has led to increased funding for the Ituri forest, which will benefit the conservation of biodiversity in general. The conservation strategy lays out the requirements for conservation of okapi, but these will necessarily lead to improved conservation of all biodiversity within the okapi habitat, reflecting its status as a flagship species. As a national symbol for DRC the okapi has unique potential to act as a flagship, and the conservation strategy takes advantage of this

with recommendations that will benefit not just okapi but forest biodiversity as a whole. Communities were included in the strategy development process and the need to ensure their involvement in its implementation is written into it. Unfortunately the huge and ongoing delay to the start of a €2.5 million REDD+ project in the Virunga-Hoyo region, due to be funded by the Congo Basin Forest Fund via the African Development Bank, meant that many of the planned community engagement and incentives initiatives have yet to commence, but once they do (expected mid-2014), this will also help implement the strategy.

## 2.3 Outputs

Of the three planned outputs, one (output 1) has been largely completed and two (outputs two and three) had their scope significantly reduced due to the problems discussed below (total of 5 sub-outputs completed, 4 partially completed/ongoing and 1 not completed). Of the 24 activities listed in the revised project logframe (annex 2; version revised in February 2012), 11 have been completed and 5 are still ongoing. 4 activities had to be abandoned as a result of insecurity and the remaining 4 activities were partially completed. A summary of the achievements under each output is presented below.

### **Output 1. Biodiversity, threats and resource needs of local people documented across okapi range and management interventions for conservation of okapi and other flagship species identified and disseminated using RFO region as case study.**

#### Achievements

- WCS-ICCN-ZSL wildlife inventory conducted in RFO, December 2010 to February 2011. The data collected will provide a baseline against which to document future changes in biodiversity.
- Wildlife surveys conducted by project partners the Lukuru Foundation in the TL2 (Tshuapa-Lomami-Lualaba) and TLA (Tshopo-Lindi-Arumwimi) regions and the Rubi Tele Hunting Reserve. These provided new information allowing better mapping of the okapi range and understanding of the threats within it.
- Preliminary reces carried out by ZSL staff in the region between RFO and Maiko National Park, and the TL2 region. The dung collected provided valuable data for the genetics PhD study from an area with no previous samples, as well as confirming okapi presence in this region.
- Comprehensive review of all post-2003 studies conducted and included in the conservation strategy. This draws together information that was previously disparate and often not publicly available, providing conservation practitioners with a single easily accessible document to inform future work on okapi.
- Workshop held in Kisangani in May 2013 to develop the first ever conservation strategy for the okapi. The workshop was hosted by the governor of Orientale province, organised by ICCN and ZSL and facilitated by IUCN. Representatives of local communities and from partner organisations working throughout the okapi range were in attendance, and all contributed to and agreed on the interventions needed to ensure conservation of okapi. The inclusion of all these stakeholders in the strategy development process and their approval of the final document should ensure their commitment to its implementation.
- Community knowledge, expert opinion and unpublished studies added to review during May 2013 Kisangani workshop. This sort of information tends to be very difficult to collect without a face-to-face meeting and can provide invaluable information, particularly for regions where no scientific studies have been conducted.
- Provisional map of probable okapi range constructed from survey data, community knowledge and expert opinion, making several changes to the range map produced by IUCN in 2008. This is now the most up to date and detailed map of the okapi range produced and was used as the basis for the IUCN 2013 Red List assessment for okapi.

- Data collected for the review allowed an IUCN Red List reassessment to be carried out at the Kisangani workshop by the okapi experts gathered for the workshop. All agreed that okapi populations were declining in the face of severe ongoing threats, and that further declines were predicted. As a result, the okapi was upgraded to 'Endangered' on the IUCN Red List.
- Awareness-raising event held at ZSL in London in November 2013. Over 100 people attended including representatives from other conservation NGOs, IUCN, donors, the UK zoo community and members of the public. The Director of Protected Areas for ICCN, Jean-Joseph Mapilanga, travelled to London to speak at the event. Director Mapilanga was in charge of the RFO for many years, including when the reserve headquarters were attacked in 2012, and his decades of first-hand experience of the challenges facing conservation in DRC allowed him to talk sincerely and knowledgeably about the requirements for conservation going forward. See here for independent review on the meeting: <http://scatterfeed.wordpress.com/2013/12/02/okapi-the-endangered-forest-giraffe/>.
- Extensive national and global media coverage of the relisting of okapi as 'Endangered' on the IUCN Red List of Threatened Species. This includes national newspaper and radio pieces in DRC, articles in the Independent, Times, Guardian and Daily Mail in the UK, and international online articles such as National Geographic, Scientific American and the LA Times (see annex 5 and 'Media outputs' in annex 7).
- First ever study of wild okapi genetics conducted. Preliminary results suggest that:
  - All dung identified as okapi by survey teams within the RFO was correctly identified (from a total of 105 samples containing adequate DNA). Dung identification in the TL2 region was far less accurate (3 out of 6 correctly identified), perhaps because okapi are less common there. This is very useful as it tells us that it is reasonable to assume that dung count estimates from the RFO reflect the true dung encounter rate, whilst dung counts from other areas where okapi occur at lower density should be treated with caution.
  - The genetic diversity found within okapi is similar to that found within giraffe. This is remarkable considering the large amount of physical variation seen across the nine sub-species of giraffe. This emphasises the evolutionary distinctiveness of the okapi and the importance of conserving it.
  - With the possible exception of a unique lineage found in the Rubi-Tele region, all genetic lineages are represented throughout the range. Successful conservation of the RFO would therefore ensure the continuation of the full range of okapi genetic diversity.
- Database containing all okapi occurrence data created. Previously a lot of data was contained only in unpublished reports and was therefore inaccessible to most researchers and conservation practitioners. Access to all existing data will ensure future conservation decisions are informed by available evidence.
- IUCN SSC Giraffe and Okapi Specialist Group (GOSG) established. This group will promote collaboration between organisations working throughout the okapi range, help coordinate activities and support the raising of awareness and funds for okapi. The group also provides a framework within which implementation of the conservation strategy can begin.
- GOSG website developed, hosted by ZSL. This will act as a central source of information for okapi (and giraffe) conservationists as well as the general public, and will provide an easy way for others to get in touch with the GOSG.
- 'Giraffid', the GOSG newsletter, launched (following on from the previous publication, 'Giraffa', for giraffes only). The first issue of this twice-yearly newsletter was produced in December 2013 and the next is planned for mid-2014 (see 'Journal papers' in annex 7 or here: <http://www.giraffeconservation.org/newsletters.php>; it will be available on the GOSG website once up and running).

## Problems

- While security in planned survey areas was relatively secure at the start of the project, the incidence of armed poaching gangs and politically-motivated rebels increased steadily during the project. Given the very real and therefore unacceptable risks to staff of conducting fieldwork in rebel-controlled areas, this caused delays and ultimately cancellation of much of ZSL and partners' planned survey work:
  - Following worsening security in eastern DRC, and a planned reorganisation of Virunga National Park staff, rangers were pulled out of the Watalinga area in the north of the park in 2009 and have yet to return. Surveys and community-based activities therefore then became unfeasible in Virunga for the remainder of the project.
  - Highly contentious national elections held in November 2011 presented an unforeseen security risk to project staff and activities. As a result, all field work was suspended, field equipment was redeployed to the Beni office for safety and non-national staff were repatriated.
  - On 24 June 2012, after setting out the study plot and just a week before the methodology comparison study (activity 1.6) was due to begin, a serious attack occurred in the RFO. Simba Mai Mai rebels (a group of infamous illegal gold miners/elephant poachers deliberately targeting conservationists clamping down on these activities in the Reserve) attacked the reserve headquarters and the nearby village of Epulu. The headquarters were looted and wrecked, with all administrative buildings burnt down. Equipment was systematically destroyed or stolen. A total of 7 people were killed and all the 15 captive okapi kept at the centre by the project's partners, GIC, were slaughtered. The rebels also caused significant damage to villagers' houses. ZSL's field equipment and food rations which had been left in WCS's store room pending the new start of the survey were also ransacked. We managed to retrieve some camera traps but many were lost. This event, with the loss of this key equipment and the source of dung for the parallel dung degradation survey with the massacre of the captive okapi, as well as the fact that the rebel leader 'Morgan' is still at large, sadly meant the long-term camera trap/recce/transect comparison study in Apharama at RFO could not be conducted, both for security and practical reasons.
  - Only weeks after the RFO attacks, the security situation deteriorated dramatically further east. An uprising of M23 rebels, launched by a former FARDC (Congolese army) colonel who broke away from the army, threatened the Virunga National Park headquarters at Rumangabo (and later Goma, the provincial capital), causing park management to evacuate the rangers' families. Rumours circulated that Rwanda and Uganda were providing financial and logistical support, coinciding with more heavy fighting in the area, and the entire zone fell under rebel control. As neither Goma nor Beni, where the project's two offices were located, were safe and fieldwork even less so, it was decided to evacuate project manager Elise Queslin back to the UK in August 2012.
  - We responded to these problems at this point by shifting the emphasis of the project to non-fieldwork related outcomes, as described in 'achievements' above.
- In addition to insecurity, a number of other issues caused challenges for the project:
  - Deteriorating relations between local communities and ICCN halted project progress with activities in the Mt Hoyo area (but see achievements under output 3 below).
  - In addition to this, the lengthy and unexpected delay to the Congo Basin Forest Fund funding for the envisaged Virunga-Hoyo REDD+ project meant specific community-focused work in this case study area had to be abandoned (see details in our change request of February 2012).

- The contract between ZSL and ICCN permitting work in DRC was severely delayed (by 6 months, meaning ZSL-led work on the ground could not start until after March 2011) due to unforeseen requests for validation and notarization at UK and DRC Embassies and ICCN offices.
- Various unexpected staff-related issues also caused problems and delays in the execution of certain project activities, including a major head injury to the Congolese field assistant in December 2010, a broken rib/ankle injury to the first in-country project manager in March 2011, the departure of the London-based project leader on maternity leave in June 2011 and the subsequent resignation of the first project manager in October 2011, both with gaps until their replacements started.

## **Output 2. Training of ICCN and local communities in biological and socio-economic monitoring techniques and community participatory work.**

### Achievements

- Joint biomonitoring training sessions conducted by ZSL with WCS and GIC field teams in 2010 ahead of the RFO inventory. ICCN and partner organisation staff were trained on survey methods, data collection protocol and basic use of camera traps.
- Community-based field staff trained in faecal sample collection by Dave Stanton in 2010 and 2011, protocols were written (see attachments in 'Other research outputs' in annex 7) and sample tubes were left with partners to continue sample collection in his absence. The samples collected by these staff were used in his genetic analysis.

### Problems

- The delays listed under output 1 above, which included a gap between the departure of the original okapi project manager Stuart Nixon and the arrival of his replacement Elise Queslin (of four months up to February 2012), alongside the wait for additional funding from US Fish and Wildlife Service, meant that the start of our planned ranger training course at the CEFROCOF centre in Epulu, RFO, had to be delayed to mid-2012.
- Unfortunately, at this point, insecurity then prevented much of the planned fieldwork from taking place. The attack on the RFO meant that the planned ranger training course could not be carried out - just when the field team had set up the long-term survey plot where training on-the-job was going to be given. Not only was the area considered very high risk, but following the attack, ICCN understandably prioritised re-establishing order and repairing infrastructure above such training and research.

## **Output 3. Capacity of ICCN and local communities to monitor, manage and conserve forest resources increased across okapi range**

### Achievements

- Support provided to ICCN to meet core needs by assisting with ranger salaries, equipment purchases (radios and phones for communication across Virunga NP, and kitchen equipment research material for Mt Hoyo headquarters), fuel and other running costs and training, in order to gradually restore its capacity to manage these protected areas.
- In April 2011, ZSL co-facilitated and attended a multi-stakeholder meeting hosted by MONUSCO (UN Peacekeeping Mission in DRC), UNDP and UN Habitat. The aim was to help mitigate the growing conflict between ICCN and the Lesse communities living around Mont Hoyo, many of whom had moved into the reserve following the rehabilitation of the access road coinciding with the absence of ICCN and clearly delimited reserve boundaries. They were strongly opposed to ICCN's presence in their territories and complained that the rangers deployed were not native to their region (coming from North Kivu Province to the south rather than Orientale Province). These discussions have resolved some major issues and paved the way for improved



collaboration with the local population. Two teams led by ZSL of 15 people each (including ICCN rangers) were deployed and reserve boundaries dating back to the ordinance of 1947 were delimited.

- Technical support and expertise provided by ZSL to the community-based Usala Nature Reserve to apply for and successfully secure a small grant (\$4000) from the International Primatological Society and the IUCN Primate Specialist Group. The proposal focusses on preliminary surveys and monitoring of Hamlyn's owl faced guenon (*Cercopithecus hamlyni*), the sole representative of a unique guenon lineage and therefore of considerable conservation value. The community team also collected data on okapi presence in the area, which was used during mapping for the status review listed under output 1.
- Okapi status review and conservation strategy produced in conjunction with ICCN and associated outputs such as the okapi survey database developed to help to build the capacity of ICCN to protect this important species.
- Establishment of the IUCN SSC Giraffe and Okapi Specialist Group (GOSG) to provide an official forum for technical and fundraising support for ICCN and others working on the ground in DRC. The GOSG counts ICCN staff among its members.

#### Problems

- The lengthy and unexpected delay to the Congo Basin Forest Fund funding for the Virunga-Hoyo REDD+ project meant specific community-focused work in this case study area had to be delayed, as for output 1.
- Work on the ground across the range, by ZSL and its partners, was limited by insecurity though much of the project period, as for output 1.
- Training of ICCN staff and local communities in particular was disrupted by insecurity, as for output 2.

### **3 Project support to the Conventions (CBD, CMS and/or CITES)**

The outputs achieved specifically support 4 CBD articles:

<b>Output</b>	<b>Evidence</b>
General Measures for Conservation and Sustainable Use (6)	The okapi conservation strategy is a national document which includes recommendations on conservation and sustainable use. It follows the programmes covered in the national strategy for biodiversity conservation in DRC's protected areas (ICCN, 2012) so will also support the CBD Programme of Work on Protected Areas.
Identification and Monitoring (7)	The studies conducted as part of the project provide monitoring data on okapi and other species (section 2.3). An okapi survey database has been created to maintain and organise all known okapi survey data and will be managed by the IUCN SSC Giraffe and Okapi Specialist Group (GOSG). Discussions are ongoing regarding the modification of Central African forest survey methods to better incorporate okapi.
Research and Training (12)	Community-based assistants were trained in dung collection techniques. Genetic research was conducted which informs conservation work needed for okapi. All known information was compiled for the okapi status review and will be made available once published on the GOSG and IUCN websites. The okapi survey database will also support future research on okapi.

Public Education and Awareness (13)	The okapi conservation strategy workshops and IUCN Red List re-assessment received widespread coverage in the national and international media in November 2013 (see section 2.3 and annexes 5 and 7). A Twitter Q&A session was also held following the Red List update and a very successful awareness-raising meeting was held at ZSL in London to raise awareness of the plight of the okapi (see <a href="http://scatterfeed.wordpress.com/2013/12/02/okapi-the-endangered-forest-giraffe/">http://scatterfeed.wordpress.com/2013/12/02/okapi-the-endangered-forest-giraffe/</a> ).
Exchange of Information (17)	Information was exchanged throughout the project between experts working on okapi across its range and internationally via the email group. The conservation strategy workshop and associated preparations and follow-up discussions also provided a good forum for information exchange.

Furthermore, the project has contributed to the targets set by ICCN in their '*Stratégie Nationale pour la Conservation de la Biodiversité dans les aires protégées de la République Démocratique du Congo*' (see section 2.2), and thus also supports DRC's contribution to the CBD Programme of Work on Protected Areas.

## 4 Project Partnerships

As mentioned in section 1, all stakeholders attending the ICCN-ZSL workshop on the conservation of okapi in Virunga National Park held in Goma in October 2008 agreed on the need for a range-wide okapi conservation project. This workshop involved 24 organisations, including GIC, WCS, WWF, DFGFI, FZS, local NGOs UGADEC and Réseau CREF, MONUSCO, UNDP, the Ministry of Environment and the Ministry of Agriculture, many which subsequently became partners in the range-wide project (see section 1).

The project has brought about unprecedented collaboration between the different partners working in the okapi range. The conservation strategy development workshop was the first time all okapi partners had met in one place and enabled experiences to be shared and plans for future collaboration on the okapi to be discussed. A total of 15 different organisations participated in the workshop, from ICCN headquarters and protected areas throughout the range (Okapi Wildlife Reserve (RFO), Maiko National Park, Rubi Tele, Virunga National Park, Mt Hoyo Reserve), the Ministry of Environment, Provincial Governor's office, IUCN, ZSL, WCS, GIC, Lukuru Foundation, WWF, FZS, Fondation Kumu and Cardiff University and community chiefs from the RFO, south Maiko and Aketi regions). In the long-term we believe this collaboration will be positive for conservation of okapi and other wildlife. The conservation strategy itself was endorsed by all the participants at the workshop and their associated organisations and institutions, as well as by representatives of local communities. Representatives for many of these actors are included in the IUCN SSC Giraffe and Okapi Specialist Group, and the strategy and Specialist Group together provide a platform for future collaboration in the field of okapi conservation.

The primary local partner for this project is the *Institut Congolais pour la Conservation de la Nature* (ICCN). ZSL started supporting ICCN in DRC's five natural World Heritage Sites in 2001. From 2004 ZSL began focusing on Virunga NP and this focus now incorporates Mt Hoyo Reserve, 40km to the north. ICCN is the government agency charged with the conservation of nature in DRC's protected area network, as well as enforcement of species protection laws outside protected areas.

The okapi conservation strategy was developed in conjunction with and on behalf of ICCN and will help to build its capacity to protect okapi and plan for long-term conservation in key forest areas across the okapi's range. ZSL's lead role in okapi conservation in DRC was enshrined and outlined in its five-year partnership contract signed with ICCN in March 2011, which includes specific protected area support, training and capacity building, okapi-related data collection in several protected areas, okapi genetic sample exportation and development of the

okapi conservation strategy. Over the course of the project, ZSL has further developed its partnership with ICCN in several ways:

- Whenever possible, ZSL attended (and in the case of Mont Hoyo, co-facilitated) the CoCoSi (Comittée du Coordination du Site) meetings held every six months for each protected area in which it works. These well-established fora enable two-way reporting of activities in the protected area and discussion of management plans and future strategic priorities between ICCN site management and partner NGOs.
- Under the terms of its partnership contract, agreed at the start of this project, ZSL draws up an annual work plan and budget for review by ICCN. ZSL's activities in DRC are formally evaluated by ICCN's General Direction via an annual project visit.
- ZSL provided financial and logistical support to Virunga Nation Park and Mt Hoyo Reserve (specifically, assisting with ranger salaries, equipment purchases, fuel and other running costs and training), as well as some limited additional support to RFO.
- ZSL provided emergency support for RFO, through matched USFWS and ZSL core funding, following the attack on the reserve headquarters in June 2012.
- ZSL provides an annual contribution to ICCN for technical support at the national level, as required by all conservation NGOs in DRC.
- ZSL developed a partnership with the ICCN site management of RFO to allow the hosting of training courses, okapi ecological research, and survey methods research. Although ultimately these objectives could not be completed due to the attack on the reserve and heightened insecurity thereafter, the establishment of this partnership with ICCN outside of ZSL's traditional Virunga area of focus was an important development.
- Jean Joseph Mapilanga, ICCN's Director of Protected Areas and previously the Site Director of RFO (at the start of the project), visited London in November 2013 to speak at an okapi conservation awareness meeting held at London Zoo. Whilst in London he also met with ZSL's Conservation Programmes Director to discuss ICCN's strategy and needs going forward. Director Mapilanga co-hosted the conservation strategy workshop in May 2013, is also a member of the GOSG and is incredibly supportive of this project and the ongoing okapi-focused work that has resulted. The specific relationship with Director Mapilanga and other senior staff at ICCN has been greatly strengthened through this project.
- ZSL awarded the Virunga National Park Director, Emmanuel de Merode, the inaugural ZSL Conservationist of the Year award in September 2013. He attended a dinner at ZSL as part of the awards ceremony and gave a speech as well as showing a short version of the upcoming 'Virunga' film. ZSL has continued to support Virunga National Park with regard to the issue of oil exploration and discussing the potential for extending a 'no go' policy for World Heritage Sites to more companies in the extractives and finance sectors.
- As part of the project an IUCN SSC Giraffe and Okapi Specialist Group has been established, with ZSL project leader Noelle Kumpel as okapi co-chair. A number of ICCN's General Direction and Protected Area Directors are members of the group. The group provides a platform for collaboration between ICCN and the network of conservationists and researchers working on okapi.
- In her role as co-chair of the IUCN SSC Giraffe and Okapi Specialist Group, project leader Noelle Kumpel will continue to seek support for ICCN and raise awareness of the need for okapi conservation.

The wider okapi conservation project depends on numerous NGO, academic and local partners for success. During the period of the project, ZSL strengthened collaboration with several partners through informal agreements and collaborative field activities as follows:

- The 40+ members of the okapi working group created in year 1 regularly exchange information via emails, and keep each other abreast of advances in research and survey activities.
- In her role as co-chair of the newly formed IUCN SSC Giraffe and Okapi Specialist Group, of which ZSL is the institutional host, ZSL's Dr Noëlle Kümpel has invited individuals from many partner organisations to join the group to contribute their knowledge and expertise.
- At the start of the project, ZSL conducted joint training sessions with WCS and GIC field teams on survey methods, data collection protocol and basic use of camera traps.
- In late 2010, ZSL provided five camera traps for GIC's use in the RFO to establish the status and health of a male okapi released from the captive population. The results were to assist ICCN and GIC to assess the potential success of a possible release component of the captive breeding programme, though the slaughter of all the captive okapi at the station mean this assessment is no longer a priority.
- GIC provided financial and in-kind support for the collection of okapi dung samples for the genetic analysis by ZSL-Cardiff University being conducted parallel to this project.
- ICCN headquarters provided export permits for the dung samples, and ICCN rangers in Mt Hoyo collected further samples for export to Cardiff University.
- Between December 2010 and February 2011, ZSL provided staff, in-kind and financial support to WCS's DRC programme in order to complete the wildlife inventory of the Okapi Faunal Reserve (RFO). The survey produced a large number of dung samples for genetic analysis.
- WCS-RFO provided the use of one of their vehicles to assist with travel to the conservation strategy workshop in May 2013.
- This project has encouraged and allowed ZSL and WCS to harmonise data collection protocols and further a partnership that is likely to result in additional collaborations in future, including a new IUCN SOS joint project in RFO.
- In February 2011, ZSL Field Coordinator Stuart Nixon participated in a 10-day Great Ape Action Plan workshop in Goma, DRC. The plan focused on the Maiko-Tayna-Kahuzi Biega and Virunga Landscapes (as defined by the Congo Basin Forest Partnership), as well as other regions reaching north to the Ituri Landscape, including much of the core okapi range. The workshop brought together key partners in conservation and government officials, with many of the okapi working group partners being represented. It provided an excellent opportunity to share ZSL's survey results and expertise on great ape conservation, discuss the okapi data collection protocol with partners and present the okapi conservation strategy project to ICCN officials and government representatives.
- Dave Stanton, a PhD student with Cardiff University and ZSL's Institute of Zoology, has conducted an okapi genetic study using dung, tissue, skin and bone samples collected from museums and throughout the species' range by ZSL and the okapi project partners. Dave visited the project in September 2010 for a pilot trip prior to starting his PhD, funded by ZSL's Erasmus Darwin Barlow Conservation Expedition Fund. Dave returned to DRC in July 2011 and conducted a mission with Kaghoma Kambale, ZSL's Monitoring Officer, to the TL2 landscape (hosted by the Lukuru Foundation). Dave and Kaghoma visited the Tatu Valley between the Lomami and Tshuapa rivers to collect dung samples. Dave's joint project has helped to strengthen and build on the partnership between ZSL and Cardiff University.
- The Lukuru Foundation collected further okapi dung samples for genetic analysis and provided data from its recent field surveys in both TL2 and the Buta-Aketi landscapes.

- All papers produced by Dave Stanton are jointly authored by Cardiff University, ZSL, numerous other partners in the field (e.g. Lukuru Foundation and WCS) and museums and researchers in Europe and the US who collaborated by supplying specimens and data (e.g. Antwerp Museum and White Oaks Conservation Center).

A number of future collaborations are already underway:

- Following a preliminary review of the issues surrounding okapi survey results and the methodologies available for studying okapi, a group of partners including John Hart of the Lukuru Foundation, Ashley Vosper and Fiona Maisels of WCS, Rene Byers of the University of British Columbia and ZSL staff met at ZSL/skyped in January to reanalyse the RFO survey data and work towards a review paper on the topic.
- ZSL, WCS and ICCN have submitted and been successful with a joint proposal to the IUCN SOS fund to support rebuilding of infrastructure in the RFO and the reestablishment of law enforcement and monitoring patrols throughout the reserve.
- ZSL will continue its policy support to Virunga National Park by continuing to highlight the issue of oil exploration in the park, working with the IUCN World Heritage Programme, UNESCO, WWF and the extractives and finance sectors to consider and encourage a 'no go' policy for extractives in Virunga as a flagship World Heritage Site. ZSL is also providing logistical and organisational support for screenings of 'Virunga: the movie' in London and at the World Parks Congress in Sydney in November 2014.

## **5 Contribution to Darwin Initiative Programme Outputs**

### **5.1 Technical and Scientific achievements and co-operation**

The genetic component of this project was the first time the genetics of wild okapi had been studied. The results have real application to conservation and research work in the field. For instance, they show that it is reasonable to assume that okapi dung collected on surveys on the RFO has been correctly identified, but that this is not the case in other parts of the range where okapi are less common. Genetic analysis of the TL2 samples revealed that dung from the eastern side of the Lomami river was in fact bongo dung, while dung from the western side was indeed okapi, providing support for the Lukuru Foundation's understanding that okapi occur only on the western side of the river. Results also suggest that the full range of okapi genetic diversity is found within the RFO, which may be an important finding for conservation planning. This genetic research will be published in peer-reviewed journals; to date (March 2014), three papers have been submitted (to PLoS ONE, Animal Conservation and Oryx), and a fourth will be submitted imminently (to Conservation Genetics; see annex 5 and attached 'Journal papers' listed in annex 7). A PhD thesis will also be submitted in April 2014.

Data sharing was an important part of this project, with data contributed from many organisations to feed into the okapi status review process (see section 4 above). A key achievement of the review process has been the upgrading of the okapi on the IUCN Red List to 'Endangered'. This has enabled a successful grant application to the IUCN SOS fund (pending changes), ensuring that the project will continue beyond the extent of current funding. The creation of a database holding all okapi survey data ensures that future conservation and research work will be informed by all available information.

An adapted version of the okapi status review will be submitted to Oryx for peer review and publication, co-authored by a number of partners. This is an important step as very little work on wild okapi has been subjected to peer review so far, coming mostly in the form of unpublished survey reports to donors.

## 5.2 Transfer of knowledge

The okapi conservation strategy represents the combined knowledge of all the researchers, conservation practitioners, policy-makers and community representatives who contributed to its development. The okapi conservation status review, which forms part of the completed strategy, has been sent to all partners working within the okapi range, providing them with a summary of all studies that may be relevant to their work. Once printed, copies of the strategy will be sent to ICCN and its partners working within the okapi range, selected members of the national and regional Congolese government, donors, IUCN, relevant Conventions and made available for download on the IUCN Giraffe and Okapi Specialist Group and IUCN websites.

Project leader Noelle Kumpel travelled to the annual Giraffe Indaba conference held in Nairobi in August 2013 to meet with other members of the IUCN Giraffe and Okapi Specialist Group (GOSG). She presented the outline of the okapi conservation strategy agreed at the Kisangani workshop, and explained the process followed during the course of this project for Red Listing the okapi and developing the conservation strategy. This knowledge will be very useful to the giraffe side of the group, which is aiming to conduct a Red List reassessment of the giraffe species and sub-species by the end of 2014 and to develop a continent-wide strategy for giraffe conservation in 2015.

A public evening event was held at ZSL in London in November 2013 to coincide with the announcement of the okapi's new 'Endangered' Red List status. Here the outcomes achieved and challenges faced by the project were presented to over 100 attendees, including representatives from other conservation NGOs, IUCN, UK government, donors, the UK zoo community and members of the public, followed by a cash bar reception open to all and then dinner for invitees and paying guests, all of which served to increase interest in and goodwill towards okapi conservation.

The results of the genetic study have been disseminated both within the scientific community and to relevant practitioners. PhD student Dave Stanton will complete his thesis in early 2014 (planned submission early April) and will soon have submitted four related papers to peer-review journals (see section 5.1, annex 5 and attached 'Journal papers' listed in annex 7). Dave personally presented his work at the conservation strategy development workshop in Kisangani in May 2013, where practitioners working throughout the okapi range were present and able to question the research first-hand, and also presented at the ZSL public evening event in November 2013. Information on his genetic research was also included in presentations at the Giraffe Indaba in Nairobi in August 2013 by GOSG okapi co-chair Noelle Kumpel and will be relayed to the Antelope and Giraffe Taxonomic Advisory Group by GOSG giraffe co-chair Julian Fennessy. The clear success of this component of the project makes a strong case for including genetic studies as part of similar projects on other species.

## 5.3 Capacity building

The conservation strategy was developed with considerable input from ICCN staff based both in national headquarters and at sites across the range (both site directors and key field staff from all main protected areas in the range), and now provides a clear roadmap for okapi conservation. The IUCN Giraffe and Okapi Specialist Group will now support ICCN and partners in implementing the strategy as much as possible, though fundraising and technical support.

The project has provided financial support to ICCN to meet their core needs by assisting with ranger salaries, equipment purchases (radios and phones for communication across Virunga NP, and kitchen equipment and research material for Mt Hoyo headquarters), fuel and other running costs as well as some training, in order to gradually restore its capacity to manage these protected areas.

In April 2011, ZSL co-facilitated and attended a multi-stakeholder meeting hosted by MONUSCO (UN Peacekeeping Mission in DRC), UNDP and UN Habitat. The aim was to help mitigate the growing conflict between ICCN and the Lesse communities living around Mont Hoyo. The communities were strongly opposed to ICCN's presence in their territories and complained that the rangers deployed were not native to their region. These discussions have

resolved some major issues and paved the way for improved collaboration with the local population. Two teams led by ZSL of 15 people each (including ICCN rangers) were deployed to delimit the reserve boundaries dating back to the ordinance of 1947.

With technical support and expertise provided by ZSL, the community-based Usala Nature Reserve applied for and successfully secured a small grant (\$4000) from the International Primatological Society and the IUCN Primate Specialist Group. The proposal focuses on preliminary surveys and monitoring of Hamlyn's owl faced guenon (*Cercopithecus hamlyni*). The team also collected data on okapi presence in the area and passed this on to the project.

#### 5.4 Sustainability and Legacy

The IUCN- and ICCN-endorsed okapi conservation strategy will guide work in the field for many years to come and has policy impact at regional, national, and international level (as this is a global strategy but for a species endemic to DRC). The Red List reassessment and associated publicity raises the national and international profile of okapi, flagging up the urgency of conservation action and has already helped attract increased attention from donors (e.g. the Segre Foundation, the IUCN SOS Fund, and private individuals) which will help to support continued and new work on the ground. Once the strategy is formally published through IUCN, it will be sent to the President and other members of the government of DRC, as well as to major donors to the Congo Basin and groups such as the Congo Basin Forest Partnership, highlighting what policies and actions are needed to meet DRC's obligations under the CBD.

The project has brought about enhanced collaboration between the different partners working in the okapi range. It allowed harmonisation of data collection protocols between ZSL and WCS and has triggered continued discussions on this topic including a number of project partners with experience of working across the okapi range. The conservation strategy development workshop in Kisangani, in the centre of the okapi's range, was the first time all okapi partners had met in one place and enabled experiences to be shared and plans for future collaboration on the okapi to be discussed. The engagement and support from the Governor of Orientale Province, who officially hosted the workshop, was particularly encouraging, and he has personally made efforts at a political level to deal with the ongoing issue of rebel presence in the Ituri/RFO region. Plans for a number of future collaborations rose out of the workshop, including work on a survey methodology review paper, and a joint ZSL-WCS proposal submitted to the IUCN SOS fund, to support elephant and okapi conservation in RFO, has been successful and is an example of 'mainstreaming' okapi into wider conservation initiatives focused on better known and better supported species. In the long-term we believe this collaboration will be positive for conservation of okapi and other wildlife.

The setting up of the IUCN SSC Giraffe and Okapi Specialist Group is critical in ensuring ongoing support for general okapi conservation and research activities, and providing a forum for discussion and news on okapi between members in DRC and internationally. This legitimises this previously largely unknown species, and association with its better known giraffe cousin will also help to raise its profile. ZSL will continue to set up and manage the GOSG website and okapi database that has been started through this project, with support from the IUCN SOS fund in the first instance.

As mentioned in section 4 above, ZSL will continue to support Virunga National Park (and ultimately other World Heritage Sites in DRC, including RFO) at a policy level by working with the IUCN World Heritage Programme, UNESCO, WWF, other NGOs and the extractives and finance sectors to consider and encourage a 'no go' policy for extractives in Virunga as a flagship World Heritage Site. We are planning an event on this topic at the World Parks Congress in Sydney in November 2014 where Virunga will be presented as a case study and ways to better safeguard our World Heritage will be explored.

While the considerable and ongoing delays to the €2.5 million Congo Basin Forest Fund (CBFF) REDD+<sup>4</sup> project in the Virunga-Hoyo region, which was originally intended to run in parallel with this Darwin Initiative project, have caused considerable challenges for the project

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<sup>4</sup> 'Reducing Emissions from Deforestation and forest Degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries'

in terms of not providing matched funding for certain core costs (e.g. office costs and part-salary of staff) and project activities (e.g. community development work and biomonitoring surveys planned for the Virunga-Hoyo region), it does look likely that this project will start very soon, now under the leadership of WCS instead of ZSL. ZSL will still play an important role in this project and, with security hopefully returning to the region, this will provide an opportunity to carry out some of the activities that had to be cancelled under this project. Darwin Initiative funding was invaluable in enabling some continued support to Mt Hoyo Reserve in the form of monthly patrol support in the absence of planned support from the CBFF project.

While all in-country project staff were laid off once our activities in DRC under this project were completed, and the ZSL-DRC programme was officially suspended pending the arrival of the CBFF project funding, all vehicles and equipment are currently temporarily being stored with our partners WCS in Goma and WWF/ICCN in Beni for future re-use under this CBFF project (which is also funded by the UK Government via DfID). Should the CBFF project not start or ZSL no longer remain a partner in the project, we will at that point hand over all Darwin Initiative project resources to ICCN.

## **6 Lessons learned**

While the project management structure itself was suitable, we suffered throughout the project with challenges in recruiting and retaining suitably experienced and qualified staff and as a result the project suffered from inconsistent and incomplete management. This was partly due to the fact that the pool of experienced staff willing to work in DRC is limited, the project manager salary budget was limited, making recruitment challenging and drawn out. It was also due to an unfortunate and unexpected chain of events with regard to staff injuries and staff turnover.

The original DRC-based field coordinator was not able to start in-country until September 2010, six months in to the project, due to the need to complete related work with FFI in Maiko National Park. After a period of injury (spring 2011) and then evacuation due to the Presidential elections (autumn 2011), he then resigned in October 2011. After two rounds of recruitment his replacement only started in DRC in February 2012. She unfortunately had to then be evacuated from DRC in August 2012 due to increased insecurity and was then based in London until the end of her contract in June 2013. Project management in-country fell to the DRC-based project administrator during all gaps in expatriate managers. UK-based project leader Noelle Kumpel went on maternity leave in June 2011, with her replacement not starting full-time until September 2011 and with the programme administrator continuing the link with the DRC staff during this period.

Regarding expertise on the project, balancing the administrative, financial and logistical aspects of the project alongside technical excellence can also be an unrealistic expectation, especially in a particularly demanding and stressful environment such as DRC. It is important to ensure adequate support staff, both in-country and at headquarters, to help with this.

Upon reviewing the original project proposal, the Darwin Advisory Committee noted, 'There was some concern that to expect measurable community livelihood benefits within three years is overly optimistic'. As noted above and in the response to the Committee, this aspect of the project, to be undertaken in the Virunga-Hoyo region, was due to be supported by a major grant awarded to ZSL in 2009 (under project leader Noelle Kumpel) from the Congo Basin Forest Fund. Unfortunately, this grant is still delayed due to administrative issues within the grant managing agency the African Development Bank and the subsequent change of project leadership to our partners WCS. As a result, these community-based activities had to be removed from the Darwin Initiative project logframe, and other aspects of the project altered to account for the increased relative operating and staff costs (which are particularly high due to the very difficult conditions in DRC) under Darwin as a result of this lack of matched funding.

Surveys were originally planned for five areas in the original proposal; these were to be undertaken and at least part-funded by partners in addition to ZSL. We recognised in our application that the project was dependent on the security situation remaining stable throughout the project, but unfortunately the security situation prevented access to planned survey areas as described above. With this in mind, we feel that a useful lesson to draw from this project is



the importance of taking a flexible approach when necessary. We responded to the enforced cancellation of original activities by seeking other ways to achieve the project goals and we deeply appreciate the understanding of this difficult situation shown by the Darwin Initiative. Maintaining some, albeit limited, support following the attack on RFO and deteriorating security situation further east, is critical to ensuring the recovery of these areas and has been appreciated by those working on the ground in DRC.

## **6.1 Monitoring and evaluation**

Progress against planned activities and outputs was regularly reviewed during ZSL's standard internal monitoring and evaluation system (via monthly reports, regular update calls between the DRC project manager and UK project management staff, and at least annual project visits to DRC by London staff and to London by DRC staff), and three change requests were submitted as a result, in February 2012, February 2013 and July 2013.

After completing 18 months of work in DRC, at which point activities had been delayed as laid out in section 2.3 above and the security situation was still poor in much of the okapi's range, ZSL undertook an internal performance assessment of the project, and requested the following changes to the logframe in February 2012, which resulted in the revised version presented in annex 2:

- To remove activities that are dependent on the Congo Basin Forest Fund (CBFF) project, thus allowing Darwin Initiative funds to be directed fully towards achievable project objectives;
- To cover critical core costs in the absence of CBFF matched funds, to allow the non-CBFF related activities to take place;
- To incorporate new activities (in secure areas using partner support) that had been planned with the arrival of new matched funds (USFWS and MBZ surveys in RFO and the South Ituri forest corridor);
- To revise predicted outputs to create realistic, workable outputs that will contribute more directly to the okapi conservation action plan (e.g. reduced numbers of full ecological surveys)
- Incorporate new, more cost-effective approaches to achieving the long-term objectives of the grant, such as basic socio-economic surveys and semi-structured interviews that can investigate local knowledge of okapi presence and abundance in areas that are potentially to logistically difficult, costly or insecure to survey comprehensively, using standardized ecological monitoring techniques.

A second assessment was undertaken in February 2013, as, following the RFO attacks in June 2012 and ensuing worsening security situation, we had to confirm the abandonment of the long-term methodology comparison study and associated ranger training and reallocate and carry forward our remaining funds to non-field activities, predominantly the okapi conservation strategy workshop in Kisangani in May 2013.

We submitted a final change request in July 2013 to carry forward and reallocate some of the funds saved on the Kisangani workshop (due to a change of location and fewer overseas attendees, both due to the continued insecurity) to a new set of activities, 1.11 to 1.15 inclusive (indicated by \* in the annex 2 logframe), which included the development of the GOSG website, okapi database, preparation of scientific papers, dissemination of project outputs via presentation at the Giraffe Indaba in Nairobi and raising awareness of the new Red List status of the okapi at a public evening event in London.

## **6.2 Actions taken in response to annual report reviews**

N/A - no annual report reviews received.

## **7 Darwin identity**

The Darwin logo was prominently displayed on a banner at the Kisangani May 2013 workshop, and Darwin stickers were on the front of all participant packs. Posters displayed at the November 2013 ZSL public meeting showed the Darwin logo, as did the printed agendas and all presentations given. The status review and conservation strategy acknowledge funding from the Darwin Initiative and include the logo on the second page. Darwin Initiative funding has also been and will be acknowledged in all papers expected to arise from the project, and is acknowledged (with logo) on the project webpage ([www.zsl.org/okapi](http://www.zsl.org/okapi)).

The Darwin Initiative support formed the largest and most critical role in terms of support for the ZSL-led range-wide okapi conservation project. The project was only able to be instigated following Darwin Initiative funding and the Darwin Initiative is always cited first in donor lists and often on its own. ICCN and other partners in DRC are familiar with the Darwin Initiative.

## **8 Finance and administration**

### **8.1 Project expenditure**

As a result of significant savings in year 3 (see section 8.3), we submitted a change request in February 2013 to carry forward and reallocate £16,255 to year 4 (2013/2014), as listed in the table below. This table sets out expenditure against this budget, but it should be noted that, as a result of savings on the workshop, another change request was submitted in July 2013 which then further reallocated the budget between these lines, which explains the large variance. This is explained in the comments where relevant.

Project spend since last annual report	2013/14 Grant (£)	2013/14 Total actual Darwin costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				Following cost savings on the workshop itself (budgeted under operating costs), project manager Elise Queslin's contract was extended by a couple of months to support the write-up and translation of the conservation strategy. The salary of DRC office guard Mungombe Chibichabene was higher than planned due to the need to pay him redundancy as we had to suspend the project office and lay off all remaining staff following the completion of the workshop in May 2013.
Consultancy costs				£5,515 was reallocated to this line in our July 2013 change request to cover Alex Quinn's contract costs to complete new activities from July-December 2013. A proportion of this was covered by matched funds, hence the apparent underspend.
Overhead costs				
Travel and subsistence				In our July 2013 change request, the costs of travel to the Giraffe Indaba meeting in Nairobi in August 2013 (budgeted at £1,325) and some of the costs associated with ICCN attendance at the ZSL meeting in London in November 2013 (£444) were included under this line (totaling £1,769, which gives only a 9% variance from the expenditure here). Travel to the DRC workshop in May 2013 was initially budgeted under 'operating costs'.
Operating costs				In our February 2013 change request, many of the costs of the DRC workshop (£10,000) and printing the strategy (£3000) were allocated to this line. Considerable savings were then made on the workshop (see section 8.3) with most costs able to be covered by other donors, so a further change request submitted in July 2013 requested that £8,094 be reallocated from this line to cover additional consultancy contract costs (£5,515, as described above), only a proportion of the printing costs (£800, which will now be entirely covered by matched funding) and travel and subsistence (£1,769) as detailed above.
Capital items (see below)				
Others (see below)				Minimal bank charges not previously budgeted
<b>TOTAL</b>	16,255	16,255		

Staff employed (name and position)	Cost (£)
Elise Queslin, Project Coordinator (DRC)	
Alex Quinn, Contracted Project Officer (UK)	
Mungombe Chibichabene, Office Guard (DRC)	
Temporary guards	

Capital items – description	Capital items – cost (£)
N/A	

Other items – description	Other items – cost (£)
Bank charges in DRC	
Bank charges in London	

## 8.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
US Fish and Wildlife Service Wildlife Without Borders-Africa Fund	
US Fish and Wildlife Service Wildlife Without Borders-Africa Fund extension	
Mohamed bin Zayed Species Conservation Fund grant 1	
Mohamed bin Zayed Species Conservation Fund grant 2	
<b>TOTAL</b>	<b>80,852</b>

Source of funding for additional work after project lifetime	Total (£)
IUCN SOS (confirmed – ZSL/okapi part of larger grant managed by WCS)	
Fondation Segré (pending)	
IUCN SSC Giraffe and Okapi Specialist Group (in kind)	
Congo Basin Forest Fund (confirmed but delayed)	
<b>TOTAL</b>	<b>763,605</b>

## 8.3 Value for Money

DRC is an expensive country, fraught with unforeseen challenges, and with the lack of matched funding from the delayed Congo Basin Forest Fund grant in addition to this, cost savings were difficult. That said, throughout the project we tried to provide value for money and budget tightly wherever possible. For example, the project manager salary was kept to a minimum, a robust second-hand car was purchased for around half the budgeted cost, and wherever possible ZSL and affiliated staff travelled by free/cheap UN and EU airlines (which more importantly also have a better safety record than Congolese commercial airlines).

In year 3, due to the curtailment of field activities and need to pull out expatriate staff from DRC as a result of insecurity, we made significant savings on fieldwork travel and subsistence, fieldwork operating costs, domestic travel and vehicle running costs (around £12,000), as well as savings of around £1000 on office/administrative costs and £3000 on salaries (including a saving on the salary of the project manager as she then reduced to 4/5 time). This meant we were able to reallocate funds to the okapi conservation strategy workshop, held in May 2013 in the final year of the project, as retailed in our change request submitted in February 2013. In the event we also made substantial cost savings on this workshop, as (1) it was held in Kisangani rather than Goma or Bukavu as previously planned, at the request of ICCN, which served as a cheaper, more central location for Congolese participants and thus reduced local

travel and subsistence costs, and (2) because of the ongoing insecurity, fewer international participants were able to attend, which reduced costs on that side.

With these savings on the workshop, we were then able to submit a further change request in July 2013 to cover the costs of a whole new range of activities that took place from July to December 2013, including development of the GOSG website and okapi database, preparation of scientific papers, dissemination of project outputs via presentation at the Giraffe Indaba in Nairobi and raising awareness of the new Red List status of the okapi at a public evening event in London.

Note that while \$2000 was stolen from the project safe by the local ZSL staff member left in charge after the evacuation of the expatriate project manager back to the UK, and the Darwin Initiative secretariat was informed, this loss has not been claimed under this grant and instead absorbed by ZSL.

# Annex 1 Report of progress and achievements against final project log frame for the life of the project

Note: For projects that commenced after 2012 the terminology used for the logframe was changed to reflect DFID's terminology.

Project summary	Measurable Indicators	Progress and achievements	Actions required/planned for next period
<p><b>Goal:</b> Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>		<p>Conservation status of okapi across its range reassessed, with okapi changed to 'endangered' on IUCN Red List as a result. First ever okapi conservation strategy developed, laying out the requirements for okapi conservation going forwards in participatory fashion with multiple stakeholders from across the range, including local communities. IUCN SSC Giraffe and Okapi Specialist Group established to provide a foundation for future work and collaboration on okapi conservation. First ever genetic analysis of wild okapi populations completed.</p>	
<p><b>Sub-Goal:</b> Ecosystem-wide conservation of forest biodiversity in DRC using okapi as a flagship across their range, with communities integrated into and benefiting from forest conservation</p>	<p>Intact and connected forest across central DRC maintaining biodiversity and ecosystem services and enabling long-term viability of populations of wide-ranging flagship species such as forest elephant and species subject to illegal cross-border trade with Uganda such as okapi, elephant, hippo, gorilla, chimpanzee and leopard</p>	<p>The project has contributed to this longer-term objective. Understanding of okapi populations has improved through the status review and genetics research, and of threats through the conservation strategy workshop. Implementation of the okapi conservation strategy will contribute to this sub-goal and be supported by ZSL through the IUCN SSC Giraffe and Okapi Specialist Group, but improvements in security and reductions in international wildlife crime require wider political efforts; ZSL is leading policy work on this (e.g. symposium on international wildlife trade at ZSL, February 2014, and session at World Parks Congress in Australia, November 2014, policy and research work on threats from extractives to protected areas with Virunga as a case study).</p>	<p>Continued awareness and fundraising to support forest conservation in DRC linked to okapi, with assistance of the IUCN SSC Giraffe and Okapi Specialist Group (GOSG) and other project partners. CBFF and IUCN SOS funding will contribute to this in terms of ZSL and other partners' work on the ground in Virunga-Hoyo and RFO regions of DRC.</p>

<p><b>Purpose:</b></p> <p>Forest biodiversity across okapi range conserved through building capacity of park authorities to manage protected area</p>	<p>Biomonitoring by ICCN and local communities shows no reduction in flagship forest biodiversity indicator species within three to five years</p> <p>Regular and structured ICCN anti-poaching patrols are undertaken in sensitive areas to deter illegal hunting</p>	<p>Ongoing. A joint WCS-ZSL wildlife inventory within RFO conducted during the project shows reductions in flagship species such as elephant but ambiguous results for okapi. Other evidence (e.g. patrol reports and from elsewhere in the range) suggests declining okapi populations. The RFO inventory will be repeated in ~2015 with minor modifications to improve methodology for okapi following discussions with WCS and other project partners.</p> <p>Patrols could not be conducted in Virunga National Park due to occupation by armed rebels. ICCN patrol reports show regular patrols (up to &gt;20,000km per year) within the Okapi Wildlife Reserve (RFO) from 2008-mid 2012. After the attack on the RFO reserve headquarters in June 2012, regular patrols became difficult to conduct due to presence of a warlord and his gang in the reserve, but have resumed sporadically following political and fundraising efforts by okapi project partners. This project has provided monthly patrol support for Mt Hoyo Reserve to enable regular patrols throughout the project period.</p> <p>ICCN co-organised and co-hosted the okapi conservation strategy workshop in Kisangani in May 2013 and led on the development of the strategy at all levels (national and site-level, from site director to ranger).</p>	<p>A workshop involving a small group of experts to develop a scientific paper looking at methods of surveying elusive forest species held in January 2014 has triggered follow-up discussions and agreements on how to modify biomonitoring methods to improve results for okapi.</p> <p>Infrastructure within the RFO needs to be rebuilt following the June 2012 attack. ZSL and WCS have submitted a proposal to the IUCN SOS fund including a budget for this and the proposal has been accepted pending changes. ZSL, ICCN and OCP have submitted a separate proposal to Fondation Segré and will continue to seek funds and political support for this necessary work, with additional support of the GOSG.</p> <p>ICCN will lead on the implementation of the okapi conservation strategy over the next 10 years.</p>
<p><b>Outputs:</b></p> <p>1. Biodiversity, threats and resource needs of local people documented across okapi range and management interventions for conservation</p>	<p>1a. Baseline biodiversity surveys carried out in at least 2 sites across the okapi known range, using standardised population monitoring techniques (recces/transects/camera trapping), focusing on distribution/abundance</p>	<p>1a. Complete. The deteriorating security situation across most of the okapi range and the lethal attack on RFO delayed/prevented access for many planned surveys. The TL2 landscape remained relatively safe and therefore the Lukuru Foundation team were able to continue their surveys there and in the nearby TLA (Tshopo-Lindi-Arumwimi) region,</p>	<p>1c. Work is continuing to look at okapi survey methodology, with an informal workshop held at ZSL in January 2014 with WCS and University of British Columbia okapi project partners; further analysis of</p>

<p>of okapi and other flagship species identified and disseminated using RFO region as case studies</p>	<p>of flagship species (okapi, elephant, hippo, gorilla, chimpanzee and leopard) (by yr 2)</p> <p>1b. Preliminary scoping visits carried out to gather information from local communities regarding okapi presence/abundance and general resource use in areas too inaccessible or insecure to permit full surveys</p> <p>1c. 12-month methodology comparison study, evaluating okapi density results as obtained by line and recce transects, camera trapping and genetic analysis, to develop rapid assessment techniques for forest biodiversity monitoring</p> <p>1d. Genetic analysis of okapi faecal samples by PhD student to understand population structure and connectivity (by yr 3)</p> <p>1e. Priority areas for okapi and other flagship species mapped and management actions required for their conservation identified at multi-stakeholder (including ICCN and UWA) workshop (yr 3)</p>	<p>as well as in the Rubi Tele region, during summer 2011. WCS, ICCN and ZSL also conducted a baseline survey of the RFO in 2010/ 2011.</p> <p>1b. Complete. In September 2011 the region between Maiko National Park and the Okapi Wildlife Reserve was surveyed by ZSL using community interviews and recce surveys where possible. A similar method was used in the TL2 region between July and October 2011. Both visits provided dung samples used in the genetic analysis.</p> <p>1c. Partially completed. Following the lethal attack on the reserve headquarters, the high risk of fieldwork within the RFO, where this study was planned to take place, led to the abandonment of the new field study, but previously gathered results have been analysed by project partners and an MSc group research project.</p> <p>1d. Complete. PhD student David Stanton is now in the process of writing up his thesis and has submitted 4 scientific papers. He has made a number of presentations on his results as part of the project, including at the conservation strategy development workshop in Kisangani in May 2013 and at an awareness raising meeting hosted at ZSL in November 2013 (see annex 7).</p> <p>1e. Complete. The first ever okapi conservation strategy was developed at a workshop held in May 2013 in Kisangani, DRC, with all 40 relevant stakeholders from across the range, including ICCN, other government representatives, NGOs, researchers and local community representatives attending. Maps of probable okapi range and distribution of threats were made, and priority areas and actions for okapi conservation were agreed. (Note that UWA was not involved as was not seen as relevant by ICCN for a workshop focused only</p>	<p>previous RFO survey data is underway.</p> <p>1d. PhD student David Stanton will submit his thesis in the first half of 2014. He has submitted 4 scientific papers to peer-reviewed journals (see annex 7 and attachments).</p> <p>1e. The implementation of the conservation strategy is the next step. ZSL and WCS have made a funding application to the IUCN SOS fund to support part of this, and it has been accepted pending changes. A second application to Fondation Segré in support of implementation has also been made.</p>
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		on okapi, a DRC endemic.)	
<b>Activity 1.1</b> Technical expert steering group formed and first meeting held	Completed.		
<b>Activity 1.2</b> Survey methodology for okapi and other flagships agreed by technical steering group and trialled in RFO alongside dung decay surveys	Partially completed. Field component had to be abandoned following the attack on RFO in June 2012, but survey methodology was discussed in the May 2013 and January 2014 workshops and is being revised for future surveys.		
<b>Activity 1.3</b> Standardised baseline surveys to be carried out in at least two survey areas	Completed. Baseline survey conducted in RFO by WCS-ICCN-ZSL in 2011. Project partners the Lukuru Foundation conducted baseline surveys in the TL2, TLA and Rubi Tele regions in 2010 and 2011, with assistance from ZSL's research and monitoring officer.		
<b>Activity 1.4</b> Preliminary recce surveys carried out where possible in additional sites	Completed. TL2, Rubi Tele and South Ituri completed.		
<b>Activity 1.5</b> Basic socio-economic surveys carried out to gather basic okapi information in communities across the okapi range (e.g. Businga, South Ituri, Maiko)	Completed. TL2, Rubi Tele and South Ituri completed.		
<b>Activity 1.6</b> Undertake methodology comparison study (genetic marking, camera trapping, line and recce transect) to evaluate the efficacy of methods	Not completed. Had to be abandoned following attack on RFO, though a desk-based cost-benefit analysis of these different methods was carried out by a group of 5 MSc Conservation Science students from Imperial College London at ZSL, and this was further looked at in January 2014 (see activity 1.6a below).		
<b>Activity 1.6a</b> Methodology comparison study written up and submitted to a peer-reviewed journal	Partially completed. Had to be abandoned following attack on RFO, but work is continuing to look at okapi survey methodology, with an informal workshop held at ZSL in January 2014 with WCS and University of British Columbia okapi project partners; further analysis of previous RFO and other survey data is underway.		
<b>Activity 1.7</b> PhD student participates in initial survey methodology meeting, and accompanies field teams to collect faecal samples, training up ZSL and GIC staff members to ensure standard process is followed	Completed, with progress as planned. WCS, GIS and ZSL staff were trained in sample collection prior to the inventory of the RFO in year 1. PhD student Dave Stanton completed a second field trip to TL2/Rubi Tele in year 2. A further 6 staff from the Lukuru Foundation (also working in other regions) were trained in dung sample collection.		
<b>Activity 1.8</b> Field survey and genetic data from all sites analysed and mapped	Completed. Over 200 samples were collected during the course of the project from across the okapi's range, the majority from RFO, but also from TL2, TLA, Rubi Tele, South Ituri and Mt Hoyo Reserve. Other museum and zoo samples were also provided for the analysis of historic and current okapi genetics, both in the wild and captivity. Three papers by Stanton et al have been submitted to peer-reviewed journals (PLoS ONE, Animal Conservation and Oryx) and a further paper will be submitted soon to Conservation Genetics.		

<b>Activity 1.9</b> Multi-stakeholder workshop held to discuss findings, management actions required and fundraising strategy	Completed. The okapi status review was reviewed and updated, a Red List reassessment was conducted and a conservation strategy developed and agreed by ICCN and all partners, including input from representatives of local communities.
<b>Activity 1.10</b> Okapi conservation action plan written up and report produced	Ongoing. The report has been finalized following feedback and revisions from all workshop participants and other members of the okapi email group and is being formatted for printing in the IUCN template (printing costs will be covered by a separate grant).
<b>Activity 1.11</b> Development of IUCN SSC Giraffe and Okapi Specialist Group website*	Ongoing. The website has been developed and a domain name ( <a href="http://www.giraffidsg.org">www.giraffidsg.org</a> ) secured. The okapi half of the site has been populated with content. Once the giraffe half has had content added the site will go live.
<b>Activity 1.12</b> Establishment of open access database of all okapi field survey data*	Ongoing. Database developed in Microsoft Access, and currently available to Giraffe and Okapi Specialist Group members on request. Discussions are underway with IUCN about making the database accessible online in a similar way to the African Elephant Database. This will be further developed under the IUCN SOS grant from mid-2014.
<b>Activity 1.13</b> Submission of a scientific paper providing a summary of the okapi status review and conservation strategy*	Ongoing. A first version of the paper has been prepared.
<b>Activity 1.14</b> Submission of a scientific paper comparing survey results and monitoring methods for okapi*	Ongoing. An informal workshop involving a small group of experts to develop a scientific paper looking at methods of surveying elusive forest species was held in January and analysis/discussion is ongoing.
<b>Activity 1.15</b> Hosting of a public event at ZSL London Zoo to raise public and donor awareness of the okapi's new 'endangered' Red List status and the conservation strategy*	Completed. The event was held at ZSL's meeting rooms on 27 November 2013. Over 100 people attended including representatives from donor organisations, IUCN, the UK zoo community and members of the public. An okapi painting, representing their historic connections and the 2012 rebel attacks, was also featured in an exhibit by ZSL's Artist in Residence Virginia Bradley in London in December 2013. A further event (the first in ZSL's summer 'Writers' Talks' series, featuring okapi and with project leader Noelle Kumpel speaking) is planned for May 2014.
<b>Activity 1.16</b> Attend Giraffe Indaba 2013 to present conservation strategy and plan development of IUCN SSC Giraffe and Okapi Specialist Group*	Completed. Project leader Dr Noelle Kumpel travelled to the Giraffe Indaba conference in Nairobi to give a presentation on the conservation strategy development process and answer questions, to help guide the upcoming giraffe conservation strategy process which will be developed within the next few years.

\*Not in original log frame but approved in July 2013 change request as replacement activities for those cancelled due to RFO attack and covered by cost savings made from the May 2013 Kisangani workshop.

<p>2. Training of ICCN and local communities in biological and socio-economic monitoring techniques and community participatory work</p>	<p>2a. 32 ICCN rangers across okapi range trained in flagship species monitoring (including camera trap data collection) via workshops and field surveys (yrs 1-2)</p> <p>2b. Four ICCN monitoring officers from across okapi range trained in monitoring data analysis and reporting (yrs 1-2)</p>	<p>2a. Partially completed. PhD student David Stanton trained a number of community based assistants in methods of preservation and collection of dung samples for genetic analysis. The ICCN ranger training workshop was approved by ICCN RFO and an agreement was reached with WCS to provide technical support and the use of its research and training centres at Epulu and Apharama. ICCN, FZS and others had committed rangers to the training and we received requests from personnel from community-managed reserves to be included in the training. However, after the attack on the RFO (see section 2.3) the RFO CoCoSi (Comité de Coordination du Site) understandably reorganised its priorities to focus on re-establishing law enforcement and rebuilding infrastructure, meaning that the training could not be conducted.</p> <p>2b. Not completed. Had to be abandoned following attack on RFO, as for 2a.</p>	
<p><b>Activity 2.1</b> ICCN rangers, monitoring officers and community-based field staff trained in biomonitoring theory and methods at WCS training centre in RFO, through classroom-based lessons and field training in Epulu area</p>		<p>Partially completed. The main training planned had to be abandoned following attack on RFO (see section 2.3). Basic training was given in September/October 2010 in advance of the RFO wildlife inventory, and on-the-job during the inventory. Training in collection and preservation of faecal samples for genetic sampling was done at the same time and also in summer 2011.</p>	
<p><b>Activity 2.2</b> ICCN monitoring officers and community-based team leaders trained in data management, analysis and reporting</p>		<p>Not completed. Had to be abandoned following attack on RFO (see section 2.3).</p>	
<p>3. Capacity of ICCN and local communities to monitor, manage and conserve forest resources increased across okapi range</p>	<p>3a. ICCN staff trained in ecological monitoring techniques (line and recce transects, camera trapping)</p> <p>3b. Simple, long-term biomonitoring data collection and analysis protocols developed for use by ICCN/local communities (yr 1)</p> <p>3c. Workshop between ICCN,</p>	<p>3a. Partially completed. See output 2 above.</p> <p>3b. Ongoing. An informal workshop was held at ZSL in London in January 2014 to review methods of surveying elusive forest species; this has triggered follow-up discussions and agreements on how to modify biomonitoring methods to improve results for okapi.</p> <p>3c. Completed. A DRC-focused workshop was held in Kisangani (the centre of the okapi's</p>	<p>3b. Work is continuing to look at okapi survey methodology, with an informal workshop held at ZSL in January 2014 with WCS and University of British Columbia okapi project partners; further analysis of previous RFO survey data is underway.</p> <p>3c. The okapi conservation</p>

	UWA and partners, to facilitate transboundary monitoring of wildlife, reduce illegal trade in forest products between DRC and Uganda and produce okapi conservation action plan	range) in May 2013 to develop the first ever okapi conservation strategy. UWA were not involved as the workshop was focused solely on okapi, a Congolese endemic, and had limited trade focus. See output 1e for details.	strategy provides a framework agreed between ICCN and all okapi partners for okapi conservation going forwards.
<b>Activity 3.2</b>	Outboard engine and pirogue purchased	Not completed. This was due to change in ICCN priorities (ICCN no longer intends to patrol the Semliki river in Virunga National Park (NP) by boat). The funds were instead reallocated to cover communications equipment at ICCN's request.	
<b>Activity 3.3</b>	Patrols support for ICCN rangers	Completed. Support was originally planned for Virunga NP but patrols have been on hold in the okapi area of the park since 2009 due to lack of available staff, insecurity and other priorities for site management, but support has been provided by ZSL for equipment and ranger salaries as requested by ICCN, and monthly patrol support has been provided to Mt Hoyo Reserve throughout the project. Some emergency patrol support was also provided to RFO via ZSL core funds in the wake of the rebel attack in June 2012.	
<b>Activity 3.4</b>	Biomonitoring data collection and analysis protocols (including database) and training modules for okapi and other wildlife developed, with initial input and subsequent oversight by technical steering group	Partially completed. This was abandoned due to the June 2012 attack, the evacuation of the project manager and enforced cancellation of activity 1.2, but revision of okapi survey protocols was discussed in the May 2013 and January 2014 workshops and is ongoing.	
<b>Activity 3.5</b>	Multi-stakeholder workshop held as for activity 1.9, including discussion of transboundary monitoring and trade controls with UWA	Completed. Workshop was held in May 2013 (see activity 1.9.). UWA were not involved because it was felt by ICCN that conservation of the endemic okapi was a Congolese issue and trans-border trade was not considered to be a major consideration.	
<b>Activity 3.8</b>	Regular (at least twice-yearly) radio broadcasts and newspaper articles on okapi/forest conservation across DRC	Completed. Changes in staff, the withdrawal of the project manager following the attack on the RFO and fewer project activities to report in the earlier stages of the project meant that the twice yearly target was not reached, but a large number of articles, newspaper articles and radio broadcasts were produced in DRC and internationally towards the end of the project (see annex 5, annex 7 and 'Media' attachments), producing well over the total target overall.	

Note that some activities from the original logframe were removed in a revision submitted in February 2012.

## Annex 2 Project's full logframe, including indicators, means of verification and assumptions

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<b>Goal:</b>			
Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.			
<b>Sub-Goal:</b> Ecosystem-wide conservation of forest biodiversity in DRC using okapi as a flagship across their range, with communities integrated into and benefiting from forest conservation	Intact and connected forest across central DRC, maintaining biodiversity and ecosystem services and enabling long-term viability of populations of wide-ranging flagship species such as forest elephant and species subject to illegal cross-border trade with Uganda such as okapi, elephant, hippo, gorilla, chimpanzee and leopard	Reports of okapi and wildlife monitoring by NGOs/ ICCN/ communities across landscape	
<b>Purpose:</b> Forest biodiversity across okapi range conserved, through building capacity of park authorities to manage protected area	Biomonitoring by ICCN and local communities shows no reduction in flagship forest biodiversity indicator species within three to five years  Regular and structured ICCN anti-poaching patrols are undertaken in sensitive areas to deter illegal hunting	Annual monitoring reports overseen by ICCN  DI closed project evaluation	ICCN continue annual monitoring throughout protected areas  Continuing security in the landscape  Security issues allow work in the relevant areas
<b>Outputs:</b> 1. Biodiversity, threats and resource needs of local people documented across okapi range and management interventions for conservation of okapi	1a. Baseline biodiversity surveys carried out in at least 2 sites across the okapi known range, using standardised population monitoring techniques (recces/transects/camera trapping), focusing on distribution/abundance of flagship species (okapi, elephant, hippo, gorilla, chimpanzee and leopard) (by yr 2)  1b. Preliminary scoping visits carried out to gather information from local communities	1a. Survey reports; peer-reviewed publications  1b. Survey reports; peer-reviewed publications  1c. Peer-reviewed publications demonstrating the comparability of methodologies for assessing okapi density	Continuing security in the landscape  Communities engage with activities  Suitable students can be recruited and funding is found for PhD study  Security issues allow work in the relevant areas

<p>and other flagship species identified and disseminated using RFO region as case study</p>	<p>regarding okapi presence/abundance and general resource use in areas too inaccessible or insecure to permit full surveys</p> <p>1c. 12-month methodology comparison study, evaluating okapi density results as obtained by line and recce transects, camera trapping and genetic analysis, to develop rapid assessment techniques for forest biodiversity monitoring</p> <p>1d. Genetic analysis of okapi faecal samples by PhD student to understand population structure and connectivity (by yr 3)</p> <p>1e. Priority areas for okapi and other flagship species mapped and management actions required for their conservation identified at multi-stakeholder (including ICCN and UWA) workshop (yr 3)</p>	<p>and providing up to date density estimates in RFO</p> <p>1d. PhD report (thesis will be completed after DI project end); peer-reviewed publications</p> <p>1e. Maps of species distributions, relative abundance and threats; range-wide okapi conservation action plan</p>	
<p>2. Training of ICCN and local communities in biological and socio-economic monitoring techniques and community participatory work</p>	<p>2a. 32 ICCN rangers across okapi range trained in flagship species monitoring (including camera trap data collection) via workshops and field surveys (yrs 1-2)</p> <p>2b. Four ICCN monitoring officers from across okapi range trained in monitoring data analysis and reporting (yrs 1-2)</p>	<p>2a. Training workshop reports and training certificates; training manuals; monthly patrol/activity reports</p> <p>2b. Training workshop reports and training certificates; training manuals</p>	<p>Suitable and sufficient government rangers are made available for training</p> <p>Local communities support and engage with project</p> <p>Suitable students can be recruited</p> <p>Security issues allow work in the relevant areas</p>
<p>3. Capacity of ICCN and local communities to monitor, manage and conserve forest resources increased across okapi range</p>	<p>3a. ICCN staff trained in ecological monitoring techniques (line and recce transects, camera trapping)</p> <p>3b. Simple, long-term biomonitoring data collection and analysis protocols developed for use by ICCN/local communities (yr 1)</p> <p>3c. Workshop between ICCN, UWA and partners, to facilitate transboundary monitoring of wildlife, reduce illegal trade in forest products between DRC and Uganda and produce okapi conservation action plan (yr 3)</p>	<p>3a. Annual project reports and ICCN monthly patrol reports</p> <p>3b. Biomonitoring manual; basic automated data analysis and GIS-mapping program</p> <p>3c. Workshop report; okapi action plan; IUCN Red List okapi re-assessment</p> <p>3d. Proposal submitted to appropriate donor(s); funds for new project</p>	<p>Extra patrol post will help stabilise insecurity</p> <p>ICCN provides rangers and monitoring officer(s) with ongoing responsibility for monitoring and analysis in each site</p> <p>Communities see value in and have sufficient personal security for long-term commitment to forest conservation (e.g. REDD) and slow-growing cocoa/tree species</p> <p>Carbon from DRC can be sold on voluntary market or via REDD framework under UNFCCC</p> <p>Security issues allow work in the relevant areas</p>

## Annex 3 Project contribution to Articles under the CBD

### Project Contribution to Articles under the Convention on Biological Diversity

Article No./Title	Project %	Article Description
6. General Measures for Conservation & Sustainable Use	40%	Develop national strategies that integrate conservation and sustainable use.
7. Identification and Monitoring	20%	Identify and monitor components of biological diversity, particularly those requiring urgent conservation; identify processes and activities that have adverse effects; maintain and organise relevant data.
8. In-situ Conservation		Establish systems of protected areas with guidelines for selection and management; regulate biological resources, promote protection of habitats; manage areas adjacent to protected areas; restore degraded ecosystems and recovery of threatened species; control risks associated with organisms modified by biotechnology; control spread of alien species; ensure compatibility between sustainable use of resources and their conservation; protect traditional lifestyles and knowledge on biological resources.
9. Ex-situ Conservation		Adopt ex-situ measures to conserve and research components of biological diversity, preferably in country of origin; facilitate recovery of threatened species; regulate and manage collection of biological resources.
10. Sustainable Use of Components of Biological Diversity		Integrate conservation and sustainable use in national decisions; protect sustainable customary uses; support local populations to implement remedial actions; encourage co-operation between governments and the private sector.
11. Incentive Measures		Establish economically and socially sound incentives to conserve and promote sustainable use of biological diversity.
12. Research and Training	20%	Establish programmes for scientific and technical education in identification, conservation and sustainable use of biodiversity components; promote research contributing to the conservation and sustainable use of biological diversity, particularly in developing countries (in accordance with SBSTTA recommendations).
13. Public Education and Awareness		Promote understanding of the importance of measures to conserve biological diversity and propagate these measures through the media; cooperate with other states and organisations in developing awareness programmes.
14. Impact Assessment and Minimizing Adverse Impacts		Introduce EIAs of appropriate projects and allow public participation; take into account environmental consequences of policies; exchange information on impacts beyond State boundaries and work to reduce hazards; promote emergency responses to hazards; examine mechanisms for re-dress of international damage.
15. Access to Genetic Resources		Whilst governments control access to their genetic resources they should also facilitate access of environmentally sound uses on mutually agreed terms; scientific research based on a country's genetic resources should ensure sharing in a fair

<b>Article No./Title</b>	<b>Project %</b>	<b>Article Description</b>
		and equitable way of results and benefits.
16. Access to and Transfer of Technology		Countries shall ensure access to technologies relevant to conservation and sustainable use of biodiversity under fair and most favourable terms to the source countries (subject to patents and intellectual property rights) and ensure the private sector facilitates such assess and joint development of technologies.
17. Exchange of Information		Countries shall facilitate information exchange and repatriation including technical scientific and socio-economic research, information on training and surveying programmes and local knowledge
19. Bio-safety Protocol		Countries shall take legislative, administrative or policy measures to provide for the effective participation in biotechnological research activities and to ensure all practicable measures to promote and advance priority access on a fair and equitable basis, especially where they provide the genetic resources for such research.
Other Contribution	20%	Smaller contributions (e.g. of 5%) or less should be summed and included here.
Total %	100%	Check % = total 100



## Annex 4 Standard Measures

Code	Description	Totals (plus additional detail as required)
<b>Training Measures</b>		
1a	Number of people to submit PhD thesis	1 (Dave Stanton, ZSL/Cardiff University; to submit April 2014)
1b	Number of PhD qualifications obtained	1
2	Number of Masters qualifications obtained	
3	Number of other qualifications obtained	
4a	Number of undergraduate students receiving training	
4b	Number of training weeks provided to undergraduate students	
4c	Number of postgraduate students receiving training (not 1-3 above)	6 (1 PhD student as above in field methods, September 2010; 5 MSc Conservation Science Imperial College London students; carried out cost-benefit analysis of okapi survey methods in RFO, October 2013, at ZSL under supervision of Alex Quinn, Dr Noelle Kumpel and Dr Marcus Rowcliffe)
4d	Number of training weeks for postgraduate students	7 (one week per MSc student, 2 weeks total for PhD student)
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification( i.e. not categories 1-4 above)	3 (ZSL field assistants trained on the job in survey methods, analysis and reporting)
6a	Number of people receiving other forms of short-term education/training (i.e. not categories 1-5 above)	8 (6 WCS, GIC and ICCN staff trained in survey methods, including camera trapping, for one week in September 2010; 2 field assistants trained in dung sampling in summer 2011)
6b	Number of training weeks not leading to formal qualification	8 (1 week each)
7	Number of types of training materials produced for use by host country(s)	2 (okapi dung sampling protocol, produced in French and English, by Dave Stanton)
<b>Research Measures</b>		
8	Number of weeks spent by UK project staff on project work in host country(s)	138
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (s)	1
10	Number of formal documents produced to assist work related to species identification,	1 (dung identification key)

Code	Description	Totals (plus additional detail as required)
	classification and recording.	
11a	Number of papers published or accepted for publication in peer reviewed journals	4 (1 accepted, 3 in review, 2 in preparation)
11b	Number of papers published or accepted for publication elsewhere	4 (2 Giraffid articles, 1 WildAbout article, 1 Darwin Initiative newsletter)
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country	1 (in preparation, yet to be published/handed over to DRC)
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country	0
13a	Number of species reference collections established and handed over to host country(s)	0
13b	Number of species reference collections enhanced and handed over to host country(s)	0
<b>Dissemination Measures</b>		
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	2 (Kisangani, May 2013; London, November 2013)
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	5 (Institute of Zoology conference, Cardiff University, poster, Giraffe Indaba August 2013, ZSL London Zoo Writer's Talk May 2014)
15a	Number of national press releases or publicity articles in host country(s)	2 (1 newspaper article May 2013, 1 press release produced for ICCN December 2013)
15b	Number of local press releases or publicity articles in host country(s)	
15c	Number of national press releases or publicity articles in UK	15+ (2 ZSL and IUCN Red List press releases, both November 2013, 1 GRASP press release July 2012, 12+ national/international newspaper/online articles Nov/Dec 2013 – see attachments listed in annexes 5 and 7)
15d	Number of local press releases or publicity articles in UK	
16a	Number of issues of newsletters produced in the host country(s)	10 (okapi email group updates)
16b	Estimated circulation of each newsletter in the host country(s)	30+ people
16c	Estimated circulation of each newsletter in the UK	10+ people
17a	Number of dissemination networks established	2 (IUCN SSC GOSG general, GOSG okapi working group)

Code	Description	Totals (plus additional detail as required)
17b	Number of dissemination networks enhanced or extended	
18a	Number of national TV programmes/features in host country(s)	
18b	Number of national TV programme/features in the UK	
18c	Number of local TV programme/features in host country	
18d	Number of local TV programme features in the UK	
19a	Number of national radio interviews/features in host country(s)	4 (1 project inception August 2010, 3 Kisangani workshop May 2013 – see annex 5)
19b	Number of national radio interviews/features in the UK	
19c	Number of local radio interviews/features in host country (s)	
19d	Number of local radio interviews/features in the UK	
<b>Physical Measures</b>		
20	Estimated value (£s) of physical assets handed over to host country(s)	Not yet handed over pending re-use under CBFF project (£12,584 value)
21	Number of permanent educational/training/research facilities or organisation established	
22	Number of permanent field plots established	
23	Value of additional resources raised for project (See Section 8.2 above)	
<b>Other Measures used by the project and not currently including in DI standard measures</b>		

## Annex 5 Publications

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (e.g. contact address, website)	Cost £
Project information sheet	Conserving okapi: Congo's forest giraffe. 2011.	ZSL	<a href="https://static.zsl.org/files/okapi-info-sheet-final-2024.pdf">https://static.zsl.org/files/okapi-info-sheet-final-2024.pdf</a>	Free
IUCN Red List assessment	<i>Okapia johnstoni</i> . Mallon D, Kumpel N, Quinn A, Shurter S, Lukas J, Hart J and Mapilanga J. 2013	IUCN, Gland	<a href="http://www.iucnredlist.org/details/15188/0">http://www.iucnredlist.org/details/15188/0</a>	Free
Meeting agenda and abstracts	Conserving the okapi: Congo's elusive forest giraffe. 2013	ZSL, GOSG and ICCN, London	<a href="http://static.zsl.org/files/abstracts-and-agenda-final-2717.pdf">http://static.zsl.org/files/abstracts-and-agenda-final-2717.pdf</a>	Free
Blog (about meeting above)	Okapi – the endangered forest giraffe. thebadlizard. 2013	thebadlizard, online	<a href="http://scatterfeed.wordpress.com/2013/12/02/okapi-the-endangered-forest-giraffe/">http://scatterfeed.wordpress.com/2013/12/02/okapi-the-endangered-forest-giraffe/</a>	Free
Conservation strategy	Okapi status review and conservation strategy. Quinn A, Kumpel N, Queslin E, Mallon D, Mapilanga JJ. 2014.	IUCN, Gland	Not yet available – will be from <a href="http://www.giraffidsq.org">www.giraffidsq.org</a> ; <a href="http://www.zsl.org/okapi">www.zsl.org/okapi</a>	Free
Scientific paper	Distinct and diverse: range-wide phylogeography reveals ancient lineages and high genetic variation in the endangered okapi ( <i>Okapia johnstoni</i> ). Stanton et al. 2014	PLoS ONE	Not yet available	Free
Scientific paper	Non-invasive genetic identification confirms okapi ( <i>Okapia johnstoni</i> ) presence southwest of the Congo River. Stanton et al. In review	Oryx	Not yet available	Free to developing country institutions under electronic access scheme
Scientific paper	Enhancing knowledge of the ecology of a highly elusive species, the okapi, using non-invasive genetic techniques. Stanton et al. In review	Animal Conservation	Not yet available	£106 (pers. subs p.a.)
Scientific	Genetic structure of	Conservation	Not yet available	£29.95

paper	captive and free-ranging okapi ( <i>Okapia johnstoni</i> ) with implications for management. Stanton et al. In review	Genetics		
Scientific paper	Conservation status of the okapi. Quinn A, Queslin E, Hart J, Mapilanga JJ, Kumpel NF. In preparation.	Oryx	Not yet available	Free to developing country institutions under electronic access scheme
Newsletter article	Rebels kill people and okapi in DRC. Kumpel, p3 in Giraffa. Kumpel N. 2012	Giraffe Conservation Foundation , online	<a href="http://www.giraffeconservation.org/newsletters.php">http://www.giraffeconservation.org/newsletters.php</a>	Free
Newsletter article	Okapi officially classified as 'Endangered' on the IUCN Red List, p2-3 in Giraffid. Kumpel N, Quinn A and Stanton, D. 2012	IUCN SSC Giraffe and Okapi Specialist Group, online	<a href="http://www.giraffeconservation.org/newsletters.php">http://www.giraffeconservation.org/newsletters.php</a>	Free
Newsletter article	Using okapi as a flagship to conserve DRC's forests (18-014), p4-5 in Darwin Initiative Newsletter. Kumpel N. July 2013.	Darwin Initiative, London	<a href="http://www.darwininitiative.org.uk/assets/uploads/2014/05/Darwin-Newsletter-Issue-23-July-2013.pdf">http://www.darwininitiative.org.uk/assets/uploads/2014/05/Darwin-Newsletter-Issue-23-July-2013.pdf</a>	Free
Popular article	Discovering this neck of the woods. ZSL. 2013	WildAbout, ZSL		Free to ZSL members
National radio interview	<i>L'ONG Zoological Society of London et la préservation des aires protégées en RDC</i> . Mapuku t and Lungembo J. 2010.	Radio Okapi, Kinshasa, DRC	<a href="http://radiookapi.net/nationale/2010/08/12/!%E2%80%99ong-zoological-society-of-london-et-la-preservation-des-aires-protegees-en-rdc/#.U58R47EuKTI">http://radiookapi.net/nationale/2010/08/12/!%E2%80%99ong-zoological-society-of-london-et-la-preservation-des-aires-protegees-en-rdc/#.U58R47EuKTI</a>	Free
Press release	Rebels attack Okapi Faunal Reserve headquarters. 2012	ZSL, London	<a href="http://www.zsl.org/conservation/news/rebels-attack-okapi-faunal-reserve-headquarters">http://www.zsl.org/conservation/news/rebels-attack-okapi-faunal-reserve-headquarters</a>	Free
Press release/online article	UNEP Coordinates Helicopter Rescue of Baby Chimpanzee. GRASP. 2012	GRASP, UNEP, Nairobi	<a href="http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=2691&amp;ArticleID=9233&amp;l=en">http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=2691&amp;ArticleID=9233&amp;l=en</a>	Free
Press release	Elusive okapi classified as 'Endangered'. 2013	ZSL, London	<a href="http://www.zsl.org/conservation/news/elusive-okapi-classified-as-%E2%80%98endangered%E2%80%99">http://www.zsl.org/conservation/news/elusive-okapi-classified-as-%E2%80%98endangered%E2%80%99</a>	Free
Newspaper article	Nature Studies: Animals are also victims of war - and in	The Independent, London	<a href="http://www.independent.co.uk/voices/comment/nature-studies-animals-are-also-">http://www.independent.co.uk/voices/comment/nature-studies-animals-are-also-</a>	Free

	Congo, that means the beautiful okapi. McCarthy M. 2013		<a href="http://victims-of-war--and-in-congo-that-means-the-beautiful-okapi-8962971.html">victims-of-war--and-in-congo-that-means-the-beautiful-okapi-8962971.html</a>	
Newspaper article	Endangered Species, Okapis Now Added to the List. Belda R. 2013	The Guardian, London	<a href="http://guardianlv.com/2013/11/endangered-species-okapis-now-added-to-the-list/">http://guardianlv.com/2013/11/endangered-species-okapis-now-added-to-the-list/</a>	Free
Newspaper article	Animal on brink of extinction due to hunting in country where its the national symbol. Ingham J. 2013	Daily Express, London	<a href="http://www.express.co.uk/news/nature/445498/Animal-on-brink-of-extinction-due-to-hunting-in-country-where-its-the-national-symbol">http://www.express.co.uk/news/nature/445498/Animal-on-brink-of-extinction-due-to-hunting-in-country-where-its-the-national-symbol</a>	Free
Online news article	Congo's Forest Giraffe, the Okapi, Now an Endangered Species, IUCN Says. Foley J. 2013	Nature World News	<a href="http://www.natureworldnews.com/articles/5087/20131126/congos-forest-giraffe-okapi-now-endangered-species-iucn.htm">http://www.natureworldnews.com/articles/5087/20131126/congos-forest-giraffe-okapi-now-endangered-species-iucn.htm</a>	Free
Online news article	'Forest Giraffe' Now Endangered: Okapi Populations Drop 50 Percent in 18 Years Platt J. 2013	Scientific American, online	<a href="http://blogs.scientificamerican.com/extinction-countdown/2013/11/25/okapi-endangered/">http://blogs.scientificamerican.com/extinction-countdown/2013/11/25/okapi-endangered/</a>	Free
Online news article	5 Winners and Losers on New "Red List" of World's Rarest Species. Howard BC. 2013	National Geographic, online	<a href="http://news.nationalgeographic.com/news/2013/11/131125-iucn-red-list-endangered-species-okapi-leatherback-science/">http://news.nationalgeographic.com/news/2013/11/131125-iucn-red-list-endangered-species-okapi-leatherback-science/</a>	Free
Online news article	Congo's national symbol, the Okapi added to Red List of endangered species	Zeenews, India	<a href="http://zeenews.india.com/news/eco-news/congo-s-national-symbol-the-okapi-added-to-red-list-of-endangered-species_892727.html">http://zeenews.india.com/news/eco-news/congo-s-national-symbol-the-okapi-added-to-red-list-of-endangered-species_892727.html</a>	Free
Online news article	Okapi, Flufftail face extinction: Red List. 2013	Japan Times, online	<a href="http://www.japantimes.co.jp/news/2013/12/07/world/science-health-world/okapi-flufftail-face-extinction-red-list/#.U5nY2bEuKTI">http://www.japantimes.co.jp/news/2013/12/07/world/science-health-world/okapi-flufftail-face-extinction-red-list/#.U5nY2bEuKTI</a>	Free
Other media outputs	Articles also published in November/December 2013 by the Times (London), the Daily Mail (London), Surfbirds (online) and many others. Contribution made to piece on okapi for 10-14 year old French children in 'Mon Quotidien', December 2013, and to Hebrew language news article with readership of 1.2 million people in Israel and around the world ( <a href="http://www.ynet.co.il/">http://www.ynet.co.il/</a> ).  Majority of DRC-specific articles not available online (2 x national Radio Okapi and 1 x national RTNC radio features on 22 and 25 May 2013 and article in Journale de la Gazette) - see annex 7 and attachments in 'Media' folder for details.			Free

## Annex 6 Darwin Contacts

<b>Ref No</b>	18-014
<b>Project Title</b>	Ecosystem-wide forest conservation in DRC using okapi as a flagship
<b>Project Leader Details</b>	
Name	Dr Noëlle Kümpel
Role within Darwin Project	Project leader
Address	ZSL, Regent's Park, London, NW1 4RY, UK
Phone	
Fax/Skype	
Email	
<b>Partner 1</b>	
Name	Jean Joseph Mapilanga
Organisation	Institut Congolais pour la Conservation de la Nature (ICCN),
Role within Darwin Project	Project co-leader, Directeur de Parcs Nationaux Domaine Reserve
Address	ICCN, 35 Av. Comité Urbain, Kinshasa GOMBE, République Démocratique du Congo
Fax/Skype	
Email	
<b>Partner 2 etc.</b>	
Name	Rosmarie Ruf
Organisation	Okapi Conservation Project
Role within Darwin Project	Partner on the ground in Okapi Wildlife Reserve
Address	Okapi Conservation Project, Epulu, Reserve de Faune de l'Okapi, République Démocratique du Congo
Fax/Skype	
Email	

## **Annex 7 List of attached project outputs**

Attachments are within folders as follows:

### **A Journal papers**

- 1 Stanton et al PLOS ONE-okapi distinct and diverse
- 2 Stanton et al Oryx-genetic ID confirms okapi SW of Congo
- 3 Stanton et al An Cons-okapi ecology via genetics
- 4 Stanton et al Cons Genetics-captive-free okapi genetics
- 5 Giraffa-Volume-6-Issue-1-2012 p3
- 6 Giraffid-Volume-7-Issue-2-2013 p2

### **B Other research outputs**

- 1 Faecal sample collection - French 20-02-11
- 2 Faecal sample collection - English 20-02-11
- 3 Dave Stanton genetics PhD poster 05-05-11
- 4 Stanton 2014 PhD thesis okapi genetics

### **C Presentations**

- 1 Kisangani Queslin okapi status review Fr 22-05-13
- 2 Giraffe Indaba Kumpel okapi cons strategy talk 29-08-13
- 3 ZSL Kumpel ZSL okapi project presentation 27-11-13
- 4 ZSL Stanton Cardiff-ZSL okapi genetics presentation 27-11-13
- 5 ZSL Mapilanga ICCN presentation okapi event 27-11-13

### **D Media**

- 1 Journale de la Gazette - okapi workshop article 22-05-13
- 2 Radio Okapi broadcast transcripts 22 and 23-05-13
- 3 WildAbout okapi article Oct 2013 final
- 4 Michael McCarthy, The Independent
- 5 Ben Webster, The Times
- 6 Damian Carrington, The Guardian
- 7 Surfbirds.com okapi-RL update blog 19-12-13
- 8 Daily Express - Animal on brink of extinction
- 9 Daily Mail - From the forest giraffe to the flufftail
- 10 LA Times - Red List\_ Conflict, habitat loss imperil world's animals
- 11 National Geographic - 5 Winners and Losers on New Red List
- 12 IUCN press release forest giraffe joins threatened species FINAL
- 13 ZSL press release okapi endangered 25-11-13



- 14 ICCN-ZSL communiqué de presse okapi 10-12-13
- 15 DI July 2013 newsletter feat okapi 18-014
- 16 ZSL conservation twitter feed screenshot 22-05-13

### **E Strategy workshop materials**

- 1 Invite okapi workshop May 2013 ADG Fr
- 2 Okapi workshop banner 19-05-13 Fr
- 3 Okapi workshop agenda 19-05-13 Fr
- 4 Okapi workshop summary 19-05-13 Fr
- 5 Okapi strategy workshop report 08-8-13 Fr
- 6 Okapi strategy workshop report 08-08-13

### **F Okapi status review and conservation strategy**

- Okapi strategy 30-03-14 Fr

### **G Project general**

- 1 Okapi info sheet final En
- 2 Okapi info sheet final En