Darwin Initiative Main Project Annual Report

To be completed with reference to the "Writing a Darwin Report" guidance:
(http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2018

Darwin Project Information

Project reference	23-001
Project title	Strengthening Cameroon's capacity for implementing CITES
Host country/ies	Cameroon
Contract holder institution	Zoological Society of London
Partner institution(s)	TRAFFIC, Ministry of Forests and Wildlife (MINFOF), Cameroon, University College London, ExCiteS
Darwin grant value	£ 288,401
Start/end dates of project	Start date: 01/04/16 End date:31/03/19
Reporting period (e.g., Apr 2017 – Mar 2018)	01 April 2017 – 31 March 2018 Annual Report 2
Project Leader name	Paul De Ornellas
Project website/blog/Twitter	http://www.zsl.org/conservation/regions/africa/dja-conservation-complex @ZSLAfrica
Report author(s) and date	Paul De Ornellas 30 April 2018

1.   Project rationale

Illegal wildlife trade (IWT) in Central Africa undermines the rule of law, nurtures corruption and hinders development. It also threatens the region's wildlife; elephant populations have declined by 62% since 2005 and increasing numbers of pangolins are trafficked to Asian markets (e.g. 2,340 kg of pangolin scales originating from Cameroon were seized in Hong Kong in June 2014). IWT also undermines the function, efficacy, and legitimacy of the Convention on Trade in Endangered Species (CITES) and the signatories to that agreement.

Map of Cameroon showing the location of project activities in year 2 which are mostly concentrated in the SE Cameroon around two protected areas of Dja and Deng Deng. Black dots denote major towns and grey areas are the PAs. The northern point designates the location of the CITES SA at Garoua and the western dot the City of Douala, where the country's major port is and customs trainings have been delivered.
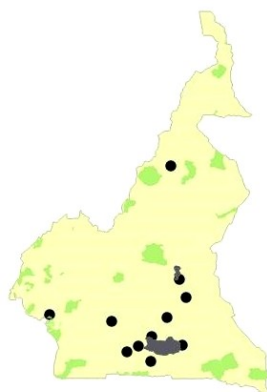
Cameroon is a major IWT hub; a source of illegally poached wildlife and a transit route for trafficked wildlife from Central African Republic (CAR), Congo and Gabon. Trafficking is often led by local elites who exploit poorer community members, co-opted into poaching for their tracking/hunting abilities and for transporting illegal wildlife products. Local people accrue little of the benefits, see their natural resources depleted, face compromised security and feel disempowered in the face of criminal elites.

This situation is compounded by a paucity of data on trafficking, poor application of national wildlife laws, and low concern. Law enforcement agents lack capacity to gather and use intelligence information, collect evidence and build robust cases. Low pay and morale means they are vulnerable to corruption and intimidation. Prosecutors and judges demonstrate limited awareness or ability to apply relevant laws and on the rare occasions cases are pursued they target those lower down the chain, ignoring those overseeing the illicit trade. A lack of robust monitoring systems limits Cameroon's ability to meet its international commitments under CITES, hinders efforts to address IWT and track progress over time.

Cameroon is a signatory to CITES, London Declaration, and is a member of COMIFAC, a sub-regional group that has committed to address IWT and reduce poaching through implementation of its action plan for strengthening national wildlife law enforcement (PAPECALF). This project aims to help Cameroon meet these commitments and avoid IWT driving wildlife to extinction, maintaining a culture of criminal impunity and corruption, and leaving local people in a cycle of poverty and natural resource depletion.

2.   Project partnerships

The project was designed in collaboration with the primary project partners: the Ministry of Forests and Wildlife (MINFOF) Conservation Services (CS) of the Dja Biosphere Reserve and Deng Deng National Park, the CITES Scientific Authority for Wildlife, TRAFFIC, and the University College London's Extreme Citizen Science group (ExCiteS). The project has the full support of MINFOF at central level and was based on the need expressed by MINFOF for continued external support in combating IWT. We continue to develop our relationships with the Courts of First Instance in the project zone and develop further relationships with enforcement agencies, such as customs, police, and gendarmes to ensure effective implementation and maximum impact of the project. Key to the success of our work is the engagement and involvement of community groups around the protected areas. For example, ZSL's social team spends considerable time consulting and building relationships with the communities, utilising Free Prior Informed Consent (PFIC) processes. MINFOF is the partner on the site-based protection efforts and we have seen a positive change in their adaptive decision-making informed by SMART patrol data.

Partner cooperation occurs through the full range of implementation, from planning and stakeholder engagement to data management and collaboration to support successful prosecution of key wildlife crime cases. Communication with key partners is regular and substantive, varying in frequency and method depending on whether we need to update the MINFOF leadership or regularly check-in with partner communities. ZSL staff develop quarterly and annual plans for implementing their work and achieving deliverables. Developing these plans depends, in part, on close communication with partners and eye to related planned activities of partners, predictable road conditions, and staff workloads. Field conservation programs such as this require a robust adaptive management approach as events and challenges can often necessitate revising activity schedules and focus, at times. Decision-making and problem solving in this regard is done in consultation with partners and within ZSL staff. Situations are evaluated, options weighed, politics and real costs considered, and decisions made and implemented. In Sept 2017, ZSL hired a TRIDOM Landscape Manager to manage all our work in this landscape. The activities under this project are, therefore, overseen by this post. The Landscape Manager is responsible for the communication with partners, setting of workplans with staff, and other key actions of this effort. Partnerships in the course of this Year 2 reporting period evolved as described below:

Government Agencies - ZSL's TRIDOM Landscape Manager and Protected Areas Technical Advisor maintain regular communication with MINFOF partners. They are in communication with MINFOF ecoguard teams and leadership almost on a daily basis and they participate in planning and strategy events. ZSL has previously signed MoUs with the Government of Cameroon (Ministry of Forestry and Wildlife, MINFOF) both at central level and with the Conservation Service of the Dja Biosphere Reserve and has letters of agreements signed previously with Deng Deng National Park. ZSL supports the Conservation Services of both sites to implement activities on the ground, providing resources, training and technical expertise. We recognise that working with MINFOF alone is not sufficient to address IWT issues and support the implementation of CITES and have, therefore, established relationships with other government agencies: enforcement agents (customs, police, gendarmerie) and Ministry of Justice (prosecutors and court house staff) to ensure the implementation of laws relating to wildlife crime. The ZSL wildlife law enforcement team works directly with MINFOF and Cameroon law enforcement partners on training, planning, and incident response. We continue to strengthen our relationships with the CITES Management Authority for Plants and Wildlife (DFAP) and the Scientific Authority for Wildlife Fauna (Ecole de Faune de Garoua; EFG), both

who were involved in the initial project planning. We have an MOU regarding our advisory role. Alongside working with the DFAP, we continue to interact in respect of CITES protocols with the regional MINFOF delegates for the southern and eastern regions, where we are focussing our efforts. Furthermore, the NIAP (National Ivory Action Plan) and ETIS (Elephant Trade Information System) focal points within the central ministry and the head of the legal department in Yaoundé continue to be engaged.

Communities - ZSL has worked around the Dja Biosphere Reserve for eight years and has been engaged in conservation activities with multiple communities throughout this period. Under this project, consultations were held with 17 communities around the Dja Biosphere Reserve to foster relationships and identify a subset of communities with which to collaborate directly with the ExCiteS program (no Deng Deng NP communities were engaged for reasons described below). Seven communities are now directly involved in ExCiteS project activities and have responded positively to the efforts of the project to empower them in monitoring and reporting. These communities are active in monitoring their natural resources in collaboration with ZSL and contribute intelligence on illegal wildlife trade incidents through Community Surveillance Networks.

Academic Institutions - The UCL Extreme Citizen Science group (UCL-ExCiteS) works with ZSL's social team to implement activities to engage and empower local forest communities in monitoring and reporting on resource use, wildlife crime and law enforcement action. ZSL also works with Cameroon's training institutions EFG (École de Faune de Garoua), DF (Direction des Forêts) and ANAFOR (Agence Nationale d'appui au développement Forestier) on curricula related to IWT and CITES, as well as on forestry and wildlife management.

NGOs - For the implementation of Activity 1.3, TRAFFIC and ZSL Cameroon utilised their existing partnership and collaborative relationship with the Ministry of Forestry and Wildlife (MINFOF) to organise a workshop of the CITES Inter-ministerial Committee. The MINFOF Central services, TRAFFIC and ZSL prepared the term of references, the agenda and identified the participants of the workshop together.

3.   Project progress

3.1   Progress in carrying out project Activities

Output 1. Monitoring systems in place and information used to track and characterise the nature of trade and use of species affected by trafficking in Cameroon with focus on pangolins

TRAFFIC have proposed several next steps and amendments to the recommendations provided in the review that was carried out in the last reporting period (Activity 1.1). Comments provided by TRAFFIC will help in making the document a more useable, informed, balanced review document to aid with improving Cameroon's reporting protocols. On April 27, 2018 (after this reporting period), there will be a *Redynamisation du Comité CITES* supported by MINFOF, TRAFFIC, and ZSL. TRAFFIC and ZSL discussed in detail the best way to progress Activity 1.2, which has only been partially achieved in Year 2 but is now on track to be achieved in Year 3. As Cameroon is already committed to reporting seizures to AFRICA-TWIX, it was concluded that it would be unwise to create another reporting stream that duplicates this effort and causes confusion. AFRICA-TWIX came to fruition after the original proposal for this project had been submitted, so the gap that existed at the time of proposal conception and submission has now been filled. AFRICA-TWIX has received a significant amount of investment to ensure a useable database, with a dedicated project manager and data entry officer. Data can be provided by any of the participating law enforcement agencies, and seizures data for Cameroon from Customs (via World Customs Organisation) are already being entered. It should be noted that while AFRICA-TWIX is managed by TRAFFIC, access is restricted only to representatives from the member countries (currently Cameroon, Central African Republic, Gabon, Congo, DRC), as decided by the participating agencies at the launch of the project. Therefore, TRAFFIC/ZSL will have to request permission to use the data for any analysis. Although it is relatively new, it has the potential to lead to the kinds of benefits shown by the European equivalent (EU-TWIX) which has run successfully for over a decade and helps agencies monitor trends in illegal trade and carry out threat assessments. By ensuring data collected under this project makes it into AFRICA-TWIX, this guarantees the greatest possibly impact of the data. An additional benefit is that AFRICA-TWIX contains identical fields to the CITES Annual Illegal Trade Report, and, therefore, it is very simple for the Cameroonian CITES Management Authority to download their data on an annual basis from AFRICA-TWIX and submit it to the CITES Secretariat. Having a streamlined approach whereby the CITES Management Authority can access the data from different Cameroonian law enforcement agencies in one place, should help ensure that Cameroon meets its reporting requirements. In light of the decision to encourage Cameroonian agencies to submit data to AFRICA-TWIX, the resulting database under this activity is an Excel Database that contains the results of the bushmeat market and consumer survey (Doc 1). In addition, a sheet within the database

has been provided where citizen science data collected through the ExCiteS element of this project can be stored. The database also provides links to documents providing guidance on CITES reporting requirements to inform the Scientific Authority.

A meeting was planned in collaboration with the CITES Management Authority of Cameroon (MINFOF) to support the goal of this project of improving the implementation of the CITES Convention in Cameroon. Training of responsible authorities is to be part of this effort (Activity 1.3). The CITES Inter-ministerial Committee (created by the Prime Minister's bill number 067/PM of June 21st, 2006), is charged with coordinating and monitoring the implementation of the CITES Convention in the Cameroonian territory.). Since its creation in 2006, the Committee has held only two meetings (in 2008 and 2010 in preparation for the 14th and 15th Conference of Parties (CoP) organised in The Hague (Netherlands) and Doha (Qatar). Articles 5 and 6 of the above quoted bill provides that the Committee must hold at least two meetings per annum and submit an evaluation report to the government after each semester (this corresponds to 16 meetings and reports that were not undertaken). The lack of activity by the Committee between 2010 and 2018 has created serious misunderstanding and lack of collaboration/coordination both internally within the CITES Management Authority, and also between the Management Authority and the other ministries and law enforcement services involved in CITES implementation. In response to a request from MINFOF to TRAFFIC and other technical partners, the organisation of a third meeting of the Committee was undertaken by TRAFFIC. The Terms of References of the workshop have been prepared (Doc 2) and approved by MINFOF, TRAFFIC, ZSL and the other partners. The agenda has been adopted and those in charge of giving presentations identified and contacted. Documents containing useful information are already prepared to be distributed to the participants as summarized in the table below:

Supplying partner	Summary of information or document provided	Explanation
TRAFFIC	PowerPoint presentation on the ETIS program, ETIS sheets and procedures	CITES Elephant Trade Information System – used to track the illegal trade in ivory and other elephant products
	Electronic version the legislation/regulations of the countries of Central Africa concerning wildlife	National legislation/regulations, existing regional and international legislation/regulations on wildlife
	Notification aux parties CITES n◦ 2017/024 du 23 mars 2017, notifications 2017/040 et 2016/007	Monitoring of illegal trade in ivory
	Decree 2005/2869/PM of July the 29th, 2005 defining the implementation process of certain provisions of CITES Convention	Implementation of CITES Convention in the national territory
	Bill n°067/PM of June the 27th, 2006 defining the organisation and functioning mechanisms of the CITES Inter-ministerial Committee	Composition, organisation and functioning mechanisms of the CITES Inter-ministerial Committee
	Decision n°0104/D/MINFOF/SG/DF/SDAFF/SN by which the Minister is designating the Scientific Authorities and defining their role in CITES implementation	Appointment and definition of the role of scientific authorities
	COMIFAC Action Plan for Strengthening the Enforcement of National Laws on Wildlife (PAPECALF)	Plan edited by COMIFAC with the support of TRAFFIC (2012-2017) to improve the implementation of CITES in Central Africa

By decree signed on 2nd March 2018, the President of Cameroon appointed a new minister in charge of Forestry and Wildlife. The new minister did not confirm the date for the Committee meeting fixed by his predecessor in early March 2018, and as he required time to understand the situation before he could decide on a new date, he has continuously postponed the meeting. By the end of March 2018, it became very difficult to agree on a date for the meeting as many officers and directors from MINFOF and other administrations were not available. Therefore, a date for April 27, 2018 has now been agreed upon by participants. Data from a range of sources (e.g., government, NGO) is now being stored in AFRICA-TWIX (Activity 1.4).

The first round of bushmeat market and consumer surveys took place between 1st February and 31st March 2017 (dry season) (Activity 1.5). The market survey was repeated from September 20, 2017 to December 31, 2017 to ensure that it coincided with the peak hunting season which is the rainy season. The results of the first dry season

survey are presented in Document 3 (Doc 3, Activity 1.6 partially achieved). The second wet season survey results are being analyzed and reviewed presently. Market survey data for five towns and cities were analysed and based on this data it appears that pangolins are commonly observed for sale in each location. Most were White-bellied or Black-bellied Pangolins, although 31 whole Giant Pangolins and 142 kg (mainly scales) were observed too. A number of other protected species were also documented during the surveys, such as elephant and gorilla meat. There was geographic variation regarding the quantity observed, for example in Abong Mbang a total of 283 whole pangolins plus 171 kg of scales were observed, compared with three pangolins and 55 kg in Lomié. Potential explanations were given, for example Abong Mbang is closer to the major cities of Yaoundé and Bertoua than Lomié, and the average price of a White or Black-bellied Pangolin was higher in Abong Mbang compared with Lomié: both factors may influence traders to sell their meat in Abong Mbang rather than Lomié. However, this is speculation and TRAFFIC provided suggested recommendations for the development of future surveys to help determine drivers of geographic variation. There was also significant variation in the price for individual pangolins of the same species, and potential reasons for this are given (size, quality, bias in data collection method, error in data entry, small sample size etc.) and a recommendation given to investigate this further in future surveys. Regarding the consumer surveys, information was collected from 20 people in each of the five markets (100 people in total). While the majority of respondents that planned to buy meat that day expected to buy antelope, porcupine or Blue duiker, when asked what their favourite meat was, pangolin was frequently given as the respondent's first or second choice. In total, 64% respondents selected pangolin as one of their top five wild meat species, with the main reason being the good quality/tasting meat. Despite their preference for pangolin meat, most respondents said one of the reasons they were not buying pangolin meat that day was because it was illegal. There was some geographic variation of the top five wild meat species given by respondents, and while it is speculated that preference may be driven by proximity to pangolin populations, ethnicity, or culture, it is recommended that further data are collected during future surveys to understand this better. Most respondents expected to eat the same amount of pangolin in the next six months, although a small number expected to eat more. Information was collected on the prices that respondents paid: most commonly between 3000-6000 Francs (CFA) for a whole pangolin (USD 5.40 to 10.80). This means that for an average income of 50,001 to 100,000 CFA, the average-priced pangolin would cost around 6% of monthly income. Of the 69 respondents that said there was a barrier to them consuming pangolin on the day of the survey, 23 respondents said it was because it was too expensive. However, respondents from across all monthly income brackets had consumed pangolin in the past six months. As noted, recommendations are provided for future surveys to help strengthen the potential of the analysis, and also to collect additional data types to help better understand the nature and drivers of the trade. Where possible, the market and consumer surveys were analysed together, but due to potential limitations in survey methods this was not always possible. Data for the second round of surveys of bushmeat markets, which were conducted between 24 September and 27 November 2017 were provided to TRAFFIC on 13th February 2018. A draft of this analysis is currently being circulated for peer review.

Consultation was carried out with 17 indigenous and local communities in the southern and eastern regions surrounding the Dja Biosphere Reserve over Year 1 and 2 (Activity 1.7, Doc 4). Discussions were held on community characteristics, forest use, and concerns over the forest. If illegal wildlife crime was brought as a concern by the community, this was discussed further and the ExCiteS reporting system was introduced. Through this process, a current set of seven villages are actively engaged in reporting through using the ExCiteS tool *Sapelli*. Despite holding consultation meetings with communities around DDNP, the work was not able to extend to communities surrounding DDNP due to the problematic transmigration situation occurring in the region. As well as this, the level of work required to extend the project to more villages than seven would have been infeasible in the time period allocated. The ExCiteS process of free, prior, and informed consent, community protocols (FPIC), and *Sapelli* training was carried out with seven communities around the Dja Biosphere Reserve (Activity 1.8). This process was extensive to ensure that local community members had maximum participation and that the whole process was community-led and focused on issues that they themselves viewed as important. An active database is being maintained that holds all submitted reports. The seven indigenous and local communities involved in using *Sapelli* have so far contributed 503 reports, including 434 photo and audio files (Activity 1.9). These reports include illegal wildlife crime data, such as killed animals, poacher's cabins, and illegal traps, as well as live animal monitoring through recording footprints and encounters.

Output 2. **Adaptive management for site based protection using the SMART approach being implemented in at least two key sites.**

Year 2 of the grant has helped strengthen the implementation of the Spatial Monitoring and Reporting Tool (SMART) after the initial setup in both the Dja Biosphere Reserve (DBR) and Deng-Deng National Park (DDNP) (Activity 2.1, Doc 5). This has included field visits to review site-based protection efforts, including patrolling systems and available resources. In the DBR, patrols are being carried out in an adaptive fashion with regular planning of targets and objectives, based on data from previous patrols, briefing and debriefing of teams. Quarterly coordination meetings are carried out to monitor progress and achievement. These meetings have led to the identification of important needs of the Reserve, such as for vehicle and boat patrols, and the completion of a river post to get the ecoguards closer to their zones of operation. Motorbikes were also identified as crucial, especially for intelligence gathering and verification as well as rapid response. The renovation of Ministry of Forests and Wildlife (MINFOF) Operation Rooms and military training for eco-guards were also acknowledged as priority activities to be carried out for successful patrol missions. In DDNP, the development and rollout of a SMART-based patrol system was achieved after a critical review of the existing Law Enforcement Monitoring (LEM) approach. This was followed by the configuration of the system and training of DDNP eco-guards and management teams. To enhance this process, within this grant, an exchange visit between the DBR and DDNP SMART teams was organised for knowledge and experience sharing from the 17th to the 21st of April 2017. The joint armed patrol of 10 men included a mix of DBR and DDNP patrol staff. Following a review of the pattern of park patrol coverage, a gridded approach to ensure full SMART patrol coverage and replicability was suggested and agreed upon by the DDNP management team. From the 25th to the 30th of March 2018, a DDNP LEM coordination and evaluation meeting was held in Bertoua to evaluate progress made since the last evaluation. The results showed that a number of issues (Doc 6) still need to be dealt with, for example 1) DDNP team deployment from Bertoua is not efficient and it would be best to have a DDNP Headquarters built as soon as possible in order to ensure the majority of ecoguards are based in Deng Deng, 2) Poor discipline, attendance and presence in the field by ecoguards and a lack of proper patrol uniforms, 3) absence of a rapid response team and no procedure for rapid response (within hours) or team reinforcement in place, and 4) ecoguards' dependence on and interaction with the nearby villages is too high.

In both DBR and DDNP good progress has been made, although this has slowed down following the nationwide MINFOF staff redeployment in 2017, during which over 90% of DBR and DDNP SMART-trained staff were transferred to other protected areas. In order to maintain effective patrolling using the SMART approach, the DBR SMART system was immediately updated to include new names and references and a training session on data collection, map reading, compass, and GPS use organised. For DBR, the training was held in Somalomo from the 6th to the 9th of October 2017 and involved 46 newly appointed DBR eco-guards. Advanced SMART training sessions were conducted for all four Sector Chiefs, the DBR Conservator, the Head of Anti-Poaching Unit, and three DBR SMART ecoguard focal points (19th to 23rd February 2018). Two SMART coordination meetings were organised from the 4th to 8th of September in Somalomo, and from the 2nd to the 22nd of January 2018 in Djoum, to review current surveillance and patrol approaches using SMART. For DDNP, the SMART software was updated to version 5.0.3 and the names of new staff registered in the system. The head of the anti-poaching unit and the new DDNP SMART focal person were trained in using the SMART system, including the downloading and cleaning of data, querying, and reporting. A report template for the park was jointly developed in line with the request contained in the procedure manual submitted to EDC for validation. We have also developed an incentive scheme to motivate patrol effectiveness in the DBR. This incentive scheme is being tested to assess its effect on patrol performance.

Following the ZSL-DBR SMART evaluation meetings, an additional 12 Personal Digital Assistants (PDA), 6 powerbanks and 2 motorbikes were obtained and delivered. An additional 127 ecoguard uniforms, 124 rubber boots, 72 raincoats, and 44 pairs of socks were sourced and delivered to DBR to ensure that teams continue to collect data even during very poor weather conditions (Activity 2.2). During this reporting period, there was an internal redeployment within the DBR and the new head of the DBR Southern sector Djoum and Lomie underwent an intense two days SMART training followed by regular remote coaching to make sure the data collection, cleaning and sharing protocols are respected for effective adaptive patrol management. A tactical patrol training was delivered in May 2017 by Retarius, a UK firm, to strengthen selected DBR ecoguard capacity in wildlife patrol skills, enhanced operational field security, effective intelligence gathering and how to conduct secure extraction/arrest operations. A reinforced anti-poaching vehicle for the rapid response team was purchased. This vehicle was delivered with a driver and the maintenance and fuelling is provided by ZSL. This vehicle and the rapid response squad led by the head of the anti-poaching unit last December carried out one of the most important IWT operations in Cameroon, leading to the seizures of 216 ivory tusk and other elephant body parts. An ecoguard river post with four roofed wooden platform and an operation room has been established on the Dja River, the southern boundary of the Dja Biosphere Reserve, and this will allow ecoguard teams to make more river patrols and be close

to the park, rather than remaining a day's trip away at Djoum, for a more effective anti-poaching response. The full-time presence of the ecoguards acts as a deterrent to hunters, as well. An aluminium boat will soon be available for patrols on the Dja River by ecoguards. To facilitate this, boat pilot training for selected ecoguards was organised along the river from the 13th to the 16th of June 2017. ZSL offices in Djoum and Lomie were renovated and fully equipped with office stationary including printers. The Operations Rooms in Lomie, Meyonmessala, and Djoum were all fully equipped.

Patrolling continues in the DBR and, while the patrol strategy is yet to be fully developed, we are still testing our proposed patrol incentive scheme. Under this scheme, the ecoguards have increased their performance in terms of seizures and continued their efforts on arrests: 27 firearms (revised figure for Year 1: 23), 286 live ammunitions (revised figure for Year 1: 226), arrested 21 poachers (revised figure for Year 1: 33) and extended the park coverage to up to 93% (patrol coverage is based on the proportion of 5 km^2 grid cells through which a patrol passed at least once) with 189 cells covered out of 203.

For DDNP, an incentive scheme validated by EDC is being utilised, and for this reporting period, 5 firearms were confiscated, 7 pieces of live ammunitions were confiscated, 3 poachers were arrested and park coverage was extended the up to 60% (patrol coverage is based on the proportion of 3 km^2 grid cells through which a patrol passed at least once) with 48 cells covered out of 79. A field testing and experience sharing mission was conducted by the Zoological Society of London (ZSL), the consultation firm Brl and the DDNP Conservation Service at the DDNP southern sector from the 17th to the 21st of April 2017. The field test involved a total of 4 eco-guards from DBR and 6 from DDNP, including the Head of the Protection Unit

Following an initial SMART system configuration and a review of current park patrol coverage status, a gridded approach to ensure full SMART patrol coverage and replicability was suggested and agreed upon. Another aspect of this exchange visit was for the teams from DBR and DDNP to be able to patrol armed to the Southern Sector of the park using maps and navigation tools, tactical camping at night, and using SMART-CyberTracker configured PDAs for data collection following the protocol. A patrol debrief and downloading of data from the PDA was also carried out during this mission with both teams.

Following the initial setup and ongoing implementation of SMART, both manager and field level staff in DBR and DDNP have received refresher training and remote support has been ongoing to ensure that all staff are capable of effectively patrolling according to agreed protocols (Activity 2.3). ZSL is providing patrol mobilisation funds to DBR and ensures patrols are carried out based on initial agreed plans including patrol targets, areas to be covered and number of days per patrol. Three evaluation meetings have been organised, between 11th and 12th April 2017; 4th to 8th September 2017 and 20th to 21st January 2018 to discuss patrol performance and approaches and to adapt the patrol strategy accordingly. In DDNP, a SMART working session took place in Bertoua with the management team of DDNP from the 25th to the 30th of March 2018. The objectives of the workshop were to do a review and update the software and add new personnel to the SMART system, and to evaluate the SMART implementation based on recommendations from our last field visit report. This mission also helped to configure SMART automated patrol reports based on the provisional template designed by the park authorities.

Consultation was carried out with 17 indigenous and local communities in the southern and eastern regions surrounding the Dja Biosphere Reserve (Activity 2.4, Doc 4). Discussions were held on community characteristics, forest use, and concerns over the forest. If illegal wildlife crime was brought as a concern by the community, this was discussed further and the ExCiteS reporting system was introduced. Through this process, a final set of seven villages are actively engaged in reporting through using the ExCiteS tool *Sapelli*. Despite holding consultation meetings with communities around DDNP, the work was not able to extend to communities surrounding DDNP due to the problematic situation occurring in the region. As well as this, the level of work required to extend the project to more villages than seven would have been unfeasible in the time period allocated. The ExCiteS process of free, prior, and informed consent, community protocols, and *Sapelli* training was carried out with seven communities around the Dja Biosphere Reserve (Activity 2.5). This process was extensive to ensure that local community members had maximum participation and that the whole process was community-led, focusing on issues which they themselves have. An active database is being maintained which holds all submitted reports. The seven indigenous and local communities involved in using *Sapelli* have so far contributed 503 reports, including 434 photo and audio files (Activity 2.6, Doc 4). These reports include illegal wildlife crime data, such as killed animals, poacher's cabins, and illegal traps, as well as live animal monitoring through recording footprints and encounters.

Output 3. Enforcement agents, prosecutors, courthouse staff and customs agents are competent in proper application of wildlife laws and reporting relating to pangolins and other trafficked species.

ZSL now has a strong wildlife enforcement team in place, consisting of an in-country Law Enforcement Officer and a London-based Africa Law Enforcement Advisor. We have been very pleased with how this team is working and getting things done on the ground – training, interacting with partners and building networks, gathering intelligence, supporting ecoguard teams, and the prosecution of key wildlife crime cases.

Between April 2017 and March 2018, ZSL has continued its programme of providing relevant training to law enforcement agents in Cameroon (Activity 3.1). The training provided is subject to a needs assessment made by ZSL's Law Enforcement Advisor, an experienced former law enforcement officer, and training elements are based upon existing skills and knowledge. The concept of Basic Law Enforcement Training (BLET) has been implemented to provide relevant basic, core policing skills to police, forestry and wildlife agents, customs and border officials, thereby augmenting their professional capacity to fight wildlife crime. The training is focused on front line and initial investigations and includes role-specific training (i.e. wildlife product recognition, cyber-investigations and open source intelligence, non-confrontational interviewing, or passenger profiling techniques). All training is supported by written reference documentation, and ongoing remote and in-country support and guidance which is available at all times through ZSL Law Enforcement Advisor.

Between April 2017 and March 2018, ZSL implemented and delivered training for 90 law enforcement agents (Activity 3.2). Forty-two police, customs and gendarmes were trained from Douala and Yaounde international airports anti-trafficking teams. This training included specific input into wildlife laws and wildlife product recognition. An element of real-world practical exercise was undertaken at the airport to enhance and illustrate the theoretical elements of this training, which was delivered with colleagues from the French Police Nationale and Gendarmerie Nationale. A further 48 ecoguards from MINFOF (Ministry of Forestry and Wildlife) received training in Basic Law Enforcement Techniques, which incorporated evidence gathering and integrity, providing evidence at court, crime scene response, note-taking, and interviewing techniques. A conference was held with court staff from the courthouse at Djoum (in southern Cameroon) to ensure understanding about the complexity and the importance of dealing with IWT offenders, and the necessity to consider (where reliable evidence exists) suitable sentencing to dissuade others.

At every training session, participant's knowledge is tested by virtue of a simple ice breaker exercise (Activity 3.3). The results of this are recorded by participants. As assessment and pictorial feedback exercise at the conclusion of the training, as well as (where possible and authorised) on-the-job real-world activity, enables both the trainer and the participants to assess and view progression in the training. All ZSL training comprises a theory-demonstrate-practice concept, which enables the participants to test their skills in a role-play and/or practical scenario, drawn from real-life cases. Feedback and evaluation documentation is retained by the trainer (ZSL Law Enforcement Advisor) for reference and evaluation to inform further training needs and content of training courses for the future.

In-country and remote follow-up of training is undertaken by ZSL Law Enforcement Advisor and the in-country Law Enforcement Officer (Activity 3.4). The impact of training is assessed by virtue of operational activity, as illustrated by the anti-trafficking teams seizing ivory and pangolin scales in August 2017 following ZSL training, and in December 2017, ZSL-trained and supported MINFOF agents making 3 arrests and a seizure of over 400 kg of ivory from a corrupt military official. The remote support function enables investigative advice and support to be offered, at the scene and in real time. In respect of further training and support, complementary training courses and guidance are being planned for the newly installed anti-smuggling teams at the international airports. The content of this training will be considerably informed by feedback gleaned from participants in previous training. Following on from Basic Law Enforcement Training, agents will be identified who display the requisite aptitude to undertake more advanced (proactive) law enforcement training which will introduce them to more complex and thought-provoking law enforcement techniques.

The in-country Law Enforcement Officer is responsible for liaising with, and supporting MINFOF judicial services and any interested parties in major wildlife crime court cases (Activity 3.5). Of note, ZSL has attended and contributed to case conferences in 6 cases of trafficking and/or poaching related crime, including possession of firearms. In particular, ZSL has been instrumental in supporting and ensuring appropriate judicial follow-up, with partner agencies, in the seizure of over 400 kg of ivory in Djoum in December 2017. The conferences and meetings with

MINFOF and judicial authorities are recorded on a weekly basis, along with any pertinent judicial disposals known about.

3.2   Progress towards project Outputs

Output 1. Monitoring systems in place and information used to track and characterise the nature of trade and use of species affected by trafficking in Cameroon with focus on pangolins

Good progress has been made for this Output. There is consensus that AFRICA-TWIX will be the primary tracking tool for trafficking of wildlife for the country and region (Indicator 1.1). Training of national CITES Authority staff has not been conducted though a planned training session is anticipated as an outcome of the upcoming April CITES Authority meeting (Indicator 1.2). The new Minister is revitalizing the CITES Authority and further progress is anticipated through this commitment and effort. Airport authorities for Douala and Yaoundé have been trained in CITES issues and approaches (Indicator 1.3). A high and a low hunting season bushmeat market and consumer surveys have been carried out and the first has been analysed and reported on (Indicator 1.4). Data is being collected on seizures and arrests and is being organized for entry into the Africa TWIX database (Indicator 1.5). The pangolin consumer surveys are complete and the first one has been reported on. The second is currently being analysed (Indicator 1.6). Initial information on pangolin trafficking has been gained through bushmeat market and consumer surveys, arrest and seizure patterns, and recently published analyses from Gabon (Indicator 1.7). ExCiteS data collection protocols and database established for community resource monitoring include pangolins and other traded species and data collection is ongoing (Indicator 1.8).

Output 2. **Adaptive management for site based protection using the SMART approach being implemented in at least two key sites.**

Protected area management has improved in both target reserves since the project began. Patrols in both parks are covering greater area, ecoguards are better trained, and human encounter rates (0.0166 in Year 1 and 0.0331 in Year 2) and seizures for wildlife crime are increasing each year (Indicator 2.1). Pangolins and other IWT targeted wildlife are being monitored through patrols encounter data, camera-trap surveys, and distance and recced sampling, but it is too early to tell with confidence if populations are trending an increase or decrease (Indicator 2.2). ExCiteS data collection protocols and database have been established for community engagement in reporting illegal activities and monitoring law enforcement actions (Indicator 2.3) and seven communities are regularly reporting. SMART is an integral part of ecoguard management activities and regular reports are being produced and used for adaptive management.

Output 3. Enforcement agents, prosecutors, courthouse staff and customs agents are competent in proper application of wildlife laws and reporting relating to pangolins and other trafficked species.

Through ZSLs Basic Law Enforcement Training courses, 90 law enforcement agents have been trained in various core aspects of law enforcement methodology, including wildlife product recognition, informant handling, and basic evidence gathering and presentation techniques (Indicator 3.1, Indicator 3.2). The arrest of 3 suspects and the seizure of over 400 kg of ivory by MINFOF, as well as the seizure of pangolin scales and ivory by anti-smuggling teams at Yaoundé airport, is testament to the increasing awareness, efficacy and professional dedication of the law enforcement agents supported and guided by ZSL. The recent ministerial circular after the upgrading of all pangolin species to appendix 1 in CITES and Class A protected species in Cameroon has also been publicized by MINFOF and ZSL. This circular was aired as a TV advert on CRTV channel 2, financed by ZSL for 1 week in order to spread the new up-listing; Activity 3.3). The seizure of 168 elephant tusks in Bertoua in March 2017 was extensively covered by radio and television houses in and out of Cameroon. ZSL has worked with partners to determine which cases are key to provide substantive support and follow up on.

Output 1. Monitoring systems in place and information used to track and characterise the nature of trade and use of species affected by trafficking in Cameroon with focus on pangolins

	Baseline	Change recorded by end of year 2	Source of Evidence
Indicator 1.1 CITES database and reporting protocols established to record pangolin trade data by month 4	No CITES database was accessible at start of project	Excel database has been developed to house survey data, and other data collected through this project.	Excel Database
Indicator 1.2 At least 30 enforcement agents trained in reporting and demonstrate ability to follow protocols by end of month 9	Very limited knowledge and capacity among wildlife law enforcement agents at start of project	Training remains to be completed	Training reports when available
Indicator 1.3 International ports and airports courts, police authorities and MINFOF regional delegations, recording data on pangolin trade/trafficking by start of month 10	Little to no training prior to project initiation, the inter-ministerial committee established by the Prime Minister in 2006 only met twice in 2008 and 2010 and has not been held since	CITES Inter-ministerial Committee meeting arranged for April 2018 (postponed from March) which will, *inter alia,* present the current context of poaching / environmental crime at the national and sub regional levels, and clarify the mechanisms for reporting on CITES seizures and the fight against wildlife crime. Customs agents trained in both international airports in CITES-related	Meeting documents (agenda and TORs)
Indicator 1.4 At least 6 major bushmeat markets being monitored for pangolin trade and database being populated by month 10	No baseline data was available	Market surveys took place between 1st February and 31st March 2017, and were repeated for a second time between 24 September - 27 November 2017	An analysis was submitted to ZSL by TRAFFIC for the first surveys, and a draft analysis is currently being finalised for the second analysis.
Indicator 1.5 Data being collected and collated into central database	No central database was available	Survey data has been stored in the Excel database.	Excel database
Indicator 1.6 Data collected on pangolin use from consumers at bushmeat markets beginning end of month 4	No survey data was available at start of project	Consumer surveys took place between 1 February and 31 March 2017	An analysis was submitted to ZSL by TRAFFIC in August 2017
Indicator 1.7 Pangolin trafficking and use for Cameroon characterised beginning month 12 and revised annually	No relevant information located	Bushmeat market and consumer surveys are complete and being reported on	Report

Indicator 1.8 ExCiteS data collection protocols and database established for community resource monitoring to include pangolins and other traded species.	Communities were previously not involved in capturing evidence of illegal wildlife crime data	Seven communities actively reporting wildlife crime and species monitoring producing a current total of 503 reports and 434 photo and audio files	ExCiteS report (Hoyte 2018)
Output 2. Adaptive management for site based protection using the SMART approach being implemented in at least two key sites			
Indicator 2.1 Incidence of poaching and seized pangolin and other wildlife products in and around DBR and DDNP decline from initial baselines by 30% by year 3	Over the last reporting period, 243 pieces of meat was seized with 02 sets of pangolin scales included (revised figures)	During this reporting period 201 pieces of bush meat was seized together with 03 whole pangolins and 3 sets of scales.	SMART report
Indicator 2.2 Population indices for pangolins and other wildlife show no decline from baselines over project period	Over the last reporting period, encounter rates were: - Direct observations/ km: 0.0014 for pangolin, 0.0030 for elephant, 0.0012 for gorilla, 0.0023 for chimpanzee - Footprints/km: 0.0205 for pangolin - Dungs/km: 0.0435 for elephant - Nests/km: 0.0132 for gorilla, 0.0119 for chimpanzee (revised figures)	During this reporting period, encounter rates of key wildlife species were: - Direct observations/ km: 0.0003 for pangolin, 0.0031 for elephant, 0.0022for gorilla, 0.0024 for chimpanzee - Footprints/km: 0.0224 for pangolins - Dungs/km: 0.0601 for elephant - Nests/km: 0.0120 for gorilla, 0.0187 for chimpanzee These results indicated a reduction in pangolin direct observations, whereas for other key wildlife species these rates tended to be stable	SMART report
Indicator 2.3 ExCiteS data collection protocols and database established for community engagement in reporting illegal activities and monitoring law enforcement actions	No database or management system previously existed to manage community illegal wildlife trade data	An online database shared between ExCiteS and ZSL staff has been established to manage incoming reports. Communication between ExCiteS and ZSL law enforcement enables monitoring	ExCiteS report (Hoyte 2018)
Indicator 2.4 Indicator to demonstrate SMART is effectively implemented – production of reports and evidence of use in adaptive mgmt	To date, SMART mission reports for the DBR are all generated by the head of each sector after a debriefing procedure during which data are visualised. The SMART	SMART report and patrol plans are now generated by the MINFOF team as part of their daily duty	SMART report

	mission report helps in preparing the plan for next patrol deployment		
Output 3. Enforcement agents, prosecutors, courthouse staff and customs agents are competent in proper application of wildlife laws and reporting relating to pangolins and other trafficked species.			
Indicator 3.1 Training materials, protocols and toolkits developed by month 6	No training tools available	ZSLs bespoke Basic Law Enforcement Training (BLET) programme established for frontline MINFOF and border agents, including hard-copy of training. Pocket field guide for MINFOF agents. ZSL staff trained in internal protocols of intelligence management.	Training records; attendance records; training manual; field guides
Indicator 3.2 At least 30 enforcement agents, prosecutors courthouse staff and customs agents are trained in the proper application of wildlife laws and CITES reporting tailored to their specific role months 6-12	No known training	To date some 177 law enforcement agents from multiple agencies have been trained in law enforcement techniques including wildlife product recognition and wildlife legislation, as relevant to their roles.	Training records; training content; relevant IWT arrest and seizure records.
Indicator 3.3 Civil society oversight and media coverage of all criminal cases by month 12	Coverage of cases was minimal	ZSL uses its influence and contacts to ensure that major criminal cases relevant to IWT are publicised through social media accounts on Twitter and Facebook, as well as influencing partner organisations and international governments to do the same. Freedom of the press in Cameroon is stymied somewhat and is heavily influenced and controlled by the state, therefore, despite acquiring potential journalistic contacts. This is something which needs to be developed accordingly.	Social media accounts; press releases in relation to major seizures;

3.3 Progress towards the project Outcome

Outcome: Strengthened capacity in Cameroon to monitor and reduce illegal hunting and trafficking of pangolins and other wildlife

In Year 2, the indicators selected have *strong* predictive value if accurate and comprehensive data can be obtained or predictive subsamples can be adequately tracked. As in Year 1, we continue to encounter considerable challenges in locating, gathering, and synthesizing robust and comprehensive baseline and current data for all of Cameroon for all of the four indicators. We continue to collaborate with the CITES Authority in Cameroon, TRAFFIC, MINFOF, the USFWS MENTOR POP team, INTERPOL, and Customs and the Judiciary to assess the baseline and trends in

trafficking, seizures, arrests, and prosecutions. However, there continues to be no operational centralized, updated, or properly managed database or record trail that we have found to establish reliable baselines for seizures of trafficked wildlife, trafficked species volumes, arrests, or prosecutions across Cameroon. We are hopeful that Africa TWIX tracking can provide some of these functions as it develops and is increasingly used by wildlife authorities. However, there is uncertainty as to how complete or how much geographic coverage there will be based on evaluation of past records that are available from different sources. Despite these challenges, we can confidently say that (1) there continues to be a high likelihood of significant volumes of pangolin scale, ivory, and bushmeat being trafficked within and out of Cameroon (Indicator 1) (as evidenced by several large seizures of ivory and scales during this reporting period) and that we believe our activities can contribute to diminish this trafficking, at least within some of our project sites (given MINFOF teams trained by this project were involved in several of the large seizures); (2) seizures of trafficked wildlife have been unreasonably low to date, we assume, given the suspected volume of IWT in Cameroon and that those seizures that have occurred only represent a very small percentage of what is leaving the country (Indicator 4); and (3) arrests and prosecutions were and remain in Year 2 far below what one would expect if the law was being properly applied (Indicator 3). While continued effort to arrest poachers is strengthened within the sites of project investment (Dja landscape), subsequent prosecutions of what we view as strong cases for those districts remain inordinately few (Indicator 3). Hopefully, our training and follow-up with law enforcement, MINFOF, Customs, and the Judiciary will increase prosecutions over time. Management within DBR and Deng Deng NP continues to be significantly improved based on suggestive metrics of frequency and area regularly patrolled by ecoguards and increases in local seizures (Indicator 2). Deng Deng NP management improvement is underway and is now well positioned to improve dramatically over year 3. Gathering adequate data to track these indicators with confidence over the next year is a priority.

Outcome: Strengthened capacity in Cameroon to monitor and reduce illegal hunting and trafficking of pangolins and other wildlife			
	Baseline	**Change by end of year 2**	**Source of Evidence**
Indicator 0.1 The nature of trade in pangolins and other trafficked species in Cameroon is documented by the end of year 3	No confident baseline was available	Bushmeat market and consumer patterns are better understood; evaluation of detailed Gabon pangolin trade report has been made	Bushmeat market and consumer surveys, literature reviews
Indicator 0.2 Effective management and protection in at least two key protected areas known to contain populations of pangolins and other trafficked species by the end of year 3	Comparisons are made to SMART reports in the Dja for periods prior to project initiation; DDNP had no baseline information	Patrols, seizures, and hunting camps destroyed are all up in both protected areas, ecoguards have been trained in patrol and wildlife law enforcement tactics and skills	MINFOF, SMART reports, training reports
Indicator 0.3 Numbers of arrests and successful prosecutions relating to wildlife crime in Cameroon increase relative to baseline levels (determine at start of project) by 25% end year 2 and 50% by end of year 3.	Data extracted from the DBR SMART database: 33 armed people arrested in Year 1	Data extracted from the DBR SMART database: 21 armed people arrested in Year 2 Data collected from the Law Enforcement team: Since the beginning of the project, ZSL has recorded 53 arrests and 26 successful prosecutions with some 6 cases currently ongoing. The figures for April 2017 to March 2018 (11 arrests and 3 successful prosecutions, with 6	MINFOF, LAGA, ZSL records

		ongoing cases) are comprised only of cases/figures in which ZSL has had an explicit support role or direct involvement. As usual, no definitive database exists and any extraneous information is generally gleaned informally form other agencies.	
Indicator 0.4 Numbers of seizures of products from pangolins and other trafficked species increases relative to baseline levels by 30% by end of year 3.	Data extracted from the DBR SMART database: 243 animal parts or bushmeat seized, including 2 seizures events related to pangolin scales	Data extracted from the DBR SMART database: 201 animal parts or bushmeat seized, including 3 whole pangolins and 3 seizures of pangolin scales Data collected from the Law Enforcement team: Between April 2016 and March 2017, seizures numbered around 20 (including small bushmeat seizures) Between April 2017 and March 2018, ZSL has retained internal records relating to 6 seizures which include over a half tonne of ivory and 20 kg of pangolin scales, seized by ZSL supported teams.	MINFOF and ZSL internal records

3.4   Monitoring of assumptions

Assumption 1: Turnover of government staff does not exceed ability to provide refresher training and deplete skillset within relevant trained teams.
This remains a threat to the project. Ninety percent of all MINFOF field staff were shifted among protected areas this year, including large numbers of ecoguards and higher mangers at both Dja Biosphere Reserve and Deng Deng National Parl. All the staff transferred who we had trained will bring their skills and knowledge to new protected areas, but this means we have to conduct further, repeat trainings for many new staff to bring capacity up to a high level of quality. So, in short, this assumption has been severely tested this year and we are doing what we can to regain the ground lost.

Assumption 2: The government of Cameroon continues to support international efforts to view illegal wildlife trade as a serious crime and maintains its commitment to support efforts to address it.
Officially, the government does continue to support these efforts and lends permission to and welcomes assistance from NGOs and their sponsors to diminish IWT. We continue to encourage MINFOF teams to respond in a substantive and timely fashion to significant breaches of wildlife law throughout their jurisdictions and local judiciaries to prosecute wildlife crime to the full extent of the law, though there is much work to be done in this area.

Assumption 3: Strengthening law enforcement capacity leads to a reduction in incidence of wildlife crime
As was the case last year, positive trends in the protection of the DBR core areas have again been noted through SMART patrol data. Patrol coverage has remained high this year and anecdotal information from communities and informants continues to suggest that poaching rings tend to shift away from heavily patrolled areas. Senior management staff continue to carry out data downloads, patrol debriefings, data cleaning and mission report

production independently and using the information contained within the database to new plan missions. In Deng Deng NP, good progress has been made in organizing patrol strategies and getting teams into the field, collecting data in a standardized way and being increasingly better trained in wildlife law enforcement methods. This assumption continues to hold true, with caveats. Where there is active patrolling with follow through on wildlife crime interdiction and prosecution, many poachers move elsewhere. The Djoum ivory seizure in December 2017 suggested to ZSL that our law enforcement training of that ecoguard team motivated and informed them in the process of carrying out their interdiction and seizure in the face of physical threats and sizeable bribes.

Assumption 4: Reducing wildlife crime reduces pressure on wild populations of pangolins and other trafficked species

This assumption remains valid. An overall diminishment of wildlife crime will reduce pressure but we have observed no evidence of abatement of IWT activity across the region as yet. When ecoguard patrols are intensified in particular zones within protected areas we have documented declines in hunting sign and increases in wildlife encounters in those areas, but direct, confident attribution will require controlled studies beyond the scope of this field conservation project. This assumption, however, remains a foundation of much of our collective conservation action as good evidence from the region and elsewhere in the world suggest that this assumption is valid. Certainly, a range of factors can cause declines in wildlife populations, including annual variation in rainfall, patterns of fruit availability, habitat loss below minimum thresholds necessary to maintain viable populations of vulnerable species, and cascading ecological effects stemming from the loss of top predators, key seed dispersers like great apes, and forest elephants that keep clearings open and disperse seeds. So both natural and anthropogenic factors can explain increases and decreases in populations of wildlife, but it is clear that the precipitous decline in pangolins and other trafficked species is largely driven by international wildlife trafficking. Strong evidence for this is found in several recent peer-reviewed papers from the Central Africa region.

It is clear that consistent support (remotely and in-country) of law enforcement units and adopting appropriate training methods (*cf* Basic Law Enforcement Training, appropriately adapted to requirements) has an impact on wildlife crime – a reduction could be deemed a misnomer initially, as a more efficient law enforcement capacity will, in effect, end up detecting and dealing with more crime than previously. However we are now beginning to see high arrest and poacher encounter statistic starting to decrease, as law enforcement attention becomes concentrated on targeting the upper echelons of the criminal chain. The flexibility and dynamism of crime and associated enforcement efforts means this assumption is pretty difficult to confirm in the short term over a vast area with differing agencies, and no central reporting context.

Assumption 5: Effective application of monitoring systems enables characterisation of trade in pangolin and other trafficked species

This assumption remains valid, but development of effective and comprehensive monitoring systems continues to be challenging and time consuming. Finding responsible entities to monitor and manage data remains challenging, but TRAFFIC is implementing useful monitoring systems that we will, along with MINFOF and other wildlife authorities, contribute data to. A recent study from Gabon on the pangolin trade has elucidated well current patterns of the trade, the networks, the markets, and other relevant aspects. Much of findings appear to be applicable to the situation in adjacent Cameroon and the trafficking networks in both countries are closely connected with the same actors involved.

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

Impact: Illegal and unsustainable hunting and trafficking of pangolins and other threatened wildlife in Cameroon is reduced, resulting in sustainably managed populations of the three pangolin species and enabling Cameroon to meet its CITES and CBD commitments.

Our assumptions in Year 2 continue to be that by improving the quality and quantity of wildlife management and wildlife law enforcement inside and outside of the reserves, empowering communities to help manage their natural resources, and providing alternatives to local people, we will help make the Cameroon's protected areas and surrounding forestry management units refugia for threatened and exploited wildlife species. Although some wildlife monitoring has occurred within the region, in the past it has been relatively unstandardized and of questionable quality. ZSL has been standardizing wildlife monitoring throughout the DBR landscape and we are increasingly able to measure wildlife population trends with more confidence. Direct attribution of activities of this

project on the trajectory of focal species populations remains difficult, at best, and would require an expanded research program with multiple controls and years of study to be able to assess attribution with statistical rigor. That being said, we are confident in our assumptions that the actions focused on this project are proven to improve the status of wildlife in target regions. There has been increased awareness regarding the protection status for pangolins. Several radio and TV messages have gone out to the public, ecoguards and MINFOF leadership, as well as custom officials at international airports, have been apprised of the new protected status, and the CITES Authority has it as a key issue. Management effectiveness of the two target protected areas has improved over the life of this project and, we anticipate, that this will translate into improved protection of resident pangolin populations within their forests.

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

This project continues to contribute particularly to achieving Global Goals for Sustainable Development (SDGs) 1 (Poverty Alleviation), 5 (Gender Equality), and 15 (Life on Land). IWT as it is practiced in the region is an extractive and exploitive industry that hurts local people by reducing their natural resources they rely on for food and livelihoods, introducing unsavoury elements into local societies, such as coercion, alcohol, and drugs, and can directly impact their security as criminal elements injure or kill local people who interfere in the trade. Local women inordinately suffer from the negative impacts of IWT activity. Reducing IWT will reduce pressure on wild populations of vulnerable species.

5. Project support to the Conventions, Treaties or Agreements

This project directly supports Cameroon's obligations under CITES and its commitment to achieving CBD targets. We work closely with Cameroon's CITES focal points. We are helping to make protected areas viable reservoirs and refugia for biodiversity and to protect endangered and vulnerable species. Much of our law enforcement work is aimed at strengthening the knowledge, processes, and effectiveness of law enforcement in securing evidence for cases, the judiciary for being familiar with wildlife laws and acting accordingly, and well-coordinated prosecution from arrests to appropriate sentencing. Cameroon is a signatory to the London Declaration and the Kasane Statement and this project supports the following commitments: London Conference Declaration: X, XI, XII, XIII, XV, XVII, XIX, XX; Kasane Statement: 9, 12, 13.
The following CBD Aichi Targets are directly or indirectly contributed to by this effort:

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society
Target 1 By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably. THROUGHOUT ALL OF OUR WORK WITH MANAGERS AND LOCAL PEOPLE WE EMPHASIZE THE VALUE OF BIODIVERSITY AND LINK THOSE VALUES TO THEIR LIVES DIRECTLY.
Target 2 By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems. WE STRIVE TO INTEGRATE THE CONCEPT OF SUSTAINABLE USE, REGULATORY TOOLS SUCH AS CITES, AND RED LINES OF EXPLOITATION OF VULNERABLE SPECIES IN ALL OF OUR INTERACTION WITH STRATEGY DEVELOPERS
Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity
Target 11 By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes. OUR PARTNERSHIP WITH MINFOF AND LOCAL COMMUNITIES ON THE BORDERS OF RESERVES HELPS TO MAINTAIN THE INTEGRITY OF SIGNIFICANT PROTECTED AREAS WITHIN CAMEROON.
Target 12 By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained. A MAJOR FOCUS OF OUR WORK IS TO HELP PROVIDE CONDITIONS WITHIN WHICH VULNERABLE TAXA SUCH AS PANGOLINS, FOREST ELEPHANT, AND GREAT APES CAN SURVIVE INTO THE FUTURE.
Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

Target 14 By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable. FORESTS WITH THEIR FULL COMPLEMENT OF LARGER VERTEBRATE SPECIES ARE MORE RESILIENT AND PRODUCTIVE, THUS PROVIDING SUSTAINED ECOSYSTEM SERVICES AT ADEQUATE LEVELS	

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building	
	Target 17 By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan. WORKING WITH THE GOVERNMENT, WE HOPE TO HIGHLIGHT THE IMPORTANCE OF CITES AS A TOOL FOR MANAGING BIODIVERSITY AS THE NBSAP IS IMPLEMENTED.
	Target 18 By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels. MANY INDIGENOUS PEOPLE LIVE WITHIN THE REGION WHERE WE ARE IMPLEMENTING THIS PROJECT. WE HELP THEM THROUGH EFFORTS TO SUSTAIN THEIR NATURAL RESOURCES AND REMOVE CRIMINAL AND NEGATIVE ELEMENTS FROM THEIR SOCIETY.
	Target 19 By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied. IMPROVING MONITORING TOOLS FOR SPECIES LOSS AND ILLEGAL TRAFFICKING WILL CONTRIBUTE WELL TO THIS TARGET.

6.   Project support to poverty alleviation

Healthier forest ecosystems resulting from a diminishment in IWT will improve the well-being, food security, and livelihoods of local people. Reducing the negative and criminal elements brought in by illegal wildlife agents to local communities will also help local people stabilize and improve their economic and social situations.

7.   Project support to gender equality issues

All local people and both genders benefit when natural resources are managed wisely and sustainably (broad aim of this effort), providing resilience to their food source, livelihoods, and security. Equal opportunities to engage in project activities are provided to all regardless of their sex. Within communities we are cognisant of the different roles that different age groups and sexes play in the community and endeavour to ensure that we have a spectrum of people involved in the ExCiteS.

8.   Monitoring and evaluation

As in Year 1, in Year 2 for keeping track of progress and estimating impacts, we monitor indicators as outlined in the logframe. These are tracked using a variety of data and information sources, some generated directly by the project and some from external sources. The logframe identifies each source of information and the frequency they will need to be monitored. Information used includes that generated by the project (e.g. monthly and annual reports, attitudinal surveys, reports of training actions, minutes of meetings with government partners and decision-makers, partner NGO reports) and external sources (e.g. national reports to CITES, monitoring reports from NGOs, media reports). For this effort, based on the logframe indicators, we are monitoring the following strong metrics and adaptively managing the project on the basis of progress and trends in each:

Direct action against poaching of wildlife
- Percent area of reserve covered by patrols on a regular basis
- Frequency, coverage, and quality of SMART-based patrol reports being generated across the reserve
- Number of seizures of arms, ammunition, snares, bushmeat, ivory, pangolin scale
- Number of arrests of poachers

Reducing support and engagement with IWT among local communities
- Number of communities and people engaged in resource management projects
- Attitudinal shifts from baseline of local people regarding wildlife and IWT

Strengthening capacity to monitor CITES-related activity and IWT and impacts of interventions
- Progress towards developing an effective tracking tool for IWT-related targets

- Broad reach and participation of actors and decision-makers in IWT/CITES awareness-raising efforts
- Gaining knowledge of the strengths, opportunities and challenges of CITES monitoring and response throughout the country

9.   Lessons learnt

Some Lessons Learned

- As we learned last year, the use of open source tools, such as SMART, require continuous training (because, in part, there has been high turnover of government personnel), supported by effective equipment procurement and follow-up systems promotes accountability and transparency. This makes the staff at each level feel part of the process. It is critical to follow up on funding and materiel delivery to ensure the right gear gets into the hands of the right people at the right time.
- Regular communication with on-the-ground partners is essential to help move activities ahead and maintain a high standard of work.
- The general slowness or lack of response of some wildlife authorities to intelligence tips from the communities causes a loss of motivation from participating community members. Therefore, the messaging of field teams to communities needs to be carefully considered and accurate, highlighting the importance of their contributions to higher-level interventions to reducing IWT later on.
- We have a confidential 'map' of trusted and less trusted individuals and organizations with whom we should continue to engage with or not, if we have a choice. It is critical to monitor such relationships and manage them well so as not to shut doors but also so as to have maximum impacts from interventions and investments.
- Careful consideration of where actions and investments can have the greatest impact is essential on a regular basis. Risks for our staff and partners associated with different interventions are also critical to evaluate as some of the IWT actors are dangerous and influential. Treating informants with strict confidence is critical to reduce the risk of harm.
- Increased attention in a sector of the reserve or within an FMU has the effect of shifting poaching activity out of that area at least for a time. Some relatively small areas that experience lower hunting pressure, if well patrolled and defended, can act as spatial refugia for pangolin and other species, though we still have too little knowledge of the various species of pangolin's natural history to know if populations will persist over time.
- Local communities, in general, have great interest in seeing IWT activity diminished or eradicated as they perceive its detrimental effects on their livelihoods, well-being, and security. However, it is very important not to raise expectations or convey false promises. Reports of wildlife crime by community members are often not responded to, potentially demotivating participants and informants.

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

We have addressed reviewer comments relating to partner relationships, communications and planning, decision-making processes, and strengths and limitations of assumptions in the relevant sections of this report.

11.   Other comments on progress not covered elsewhere

None

12.   Sustainability and legacy

Our community projects, such as ExCiteS, are meant to empower the participating communities to better manage their resources independently and resist engagement in IWT. Within the protected area, the SMART reports are generated by DBR staff themselves who are gradually taking ownership of the approach to ensure sustainability and continuity in the process. Our SMART work in the DBR continues to be heavily promoted in the other parts of the TRIDOM (logging concessions, Mengame Gorilla Sanctuary and proposed Kom National Park and Deng Deng National Park) and we hope to soon get the Cameroon Forest Ministry to assign a focal point whose main role will be to oversee long-term use of the system. ZSL is advocating that Dja Biosphere Reserve headquarters at Somalomo be used as a SMART training centre for all MINFOF staff around the country. This grant, and a grant from the IWT Challenge Fund, have enabled us to secure a further grant from the European Commission under its ECOFAC 6 programme of €2million over the next 4 years which will help us ensure that the work carried out under this DI grant can be sustained and embedded further into the operations of our partners to ensure its legacy. ZSL remain

committed to this landscape into the future and will continue to raise additional funds to ensure this can be maintained.

13. Darwin identity

Throughout all of communication of the effort and outcomes of this work, we mention or highlight that it is supported by the Darwin Initiative and the UK Government. ZSL consistently highlights the Darwin Initiative in various fora in country, such as the conservation community meetings, meeting with EU and UNESCO partners, and in a range of workshops and meetings with different government and diplomatic entities. Field guides issued to in-country frontline DBR law enforcement show the Darwin Initiative logo.

14. Project expenditure

Table 1: Project expenditure <u>during the reporting period</u> (1 April 2017 – 31 March 2018)

Project spend (indicative) since last annual report	2017/18 Grant (£)	2017/18 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs			-1%	
Carly Waterman (ZSL Lead, Pangolins)			8%	
Law enforcement Coordinator			-1%	
Madeleine NGO BATA (Research and Surveillance Officer			-8%	
Vicky Fomete (Finance and Adminstration Manager)			6%	
Kpwang Abessolo F (Lead of TRAFFIC's project contributions)			6%	
Paulinus Ngeh (Technical Advisor on TRAFFIC's project contributions)			0%	
Willow Outwaithe (Data Analyst)			7%	
Jerome Lewis (Technical supervision, ExCites)			-17%	Budget cost included VAT however the actuals are without VAT as this is not an approved expense
Simon Hoyte (Research Assistant, ExCites)			0%	
Consultancy costs				
Overhead Costs			1%	
Travel and subsistence			-1%	
Operating Costs			0%	
Capital items				
Monitoring & Evaluation (M&E)				
Others			2%	
Consumables			-16%	Due higher spending on fuel lines underspending on consumables
Communication			0%	
Fuel and Vehicle Maintenance			11%	Increased number of trips to project area for implimentation of activities and monitoring of patrols

Vehicle Insurance			-19%	
Printing (partners)			-25%	Printing of materials delayed due to change of training dates to coincide with MINFOF availability
Communication (partners)			9%	
Fuel and Vehicle costs (partners)			11%	Significant movement of vehicle to support MINFOF patrols throughout the project area
TOTAL	**88,716**	**88,542**	0%	

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-2018

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
Impact **Impact:** Illegal and unsustainable hunting and trafficking of pangolins and other threatened wildlife in Cameroon is reduced, resulting in sustainably managed populations of the three pangolin species and enabling Cameroon to meet its CITES and CBD commitments.		Impacts of law enforcement efforts on targeted species populations is inherently challenging to assess with confidence. Patrol data and anecdotal reports suggests that poachers shift their activities away from areas that are regularly patrolled and that wildlife is more easily observed within these zones. Most of the important actors who manage CITES and conduct enforcement are now fully apprised of changes in CITES listings and efforts to streamline and broaden CITES monitoring efforts	Continue with planned project activities
Outcome Strengthened capacity in Cameroon to monitor and reduce illegal hunting and trafficking of pangolins and other wildlife.	0.1 The nature of trade in pangolins and other trafficked species in Cameroon is documented by the end of year 3	We continue to support implantation of CITES reporting protocols – ongoing activity with MINFOF and law enforcement agencies through communications and workshops/meetings	Continue support and eventual implementation Continue to support database training with the CITES SA, based at Garoua Wildlife School (EFG). Support the ETIS focal point to travel into the field and strengthen the reporting to CITES using ETIS, and WEMS for other species.
	0.2 Effective management and protection in at least two key protected areas known to contain populations of pangolins and other trafficked species by the end of year 3	Over this reporting period, the SMART approach implementation has been matured with heads of sectors (SMART focal point) taking ownership of the approach and having good mastery of the software. Data collected during patrols stored and use to organise response to poaching threats in both protected areas are now being gradually used by the	For next reporting period we will continue to support DBR CS in carrying informed patrols following the SMART approach. We will endeavour to extend the scope of the rapid response team to the northern and eastern sector of the Dja.

		central administration for planning the crackdown operations. At the level of the sectors headquarter, the operationalization of operation room is facilitating regular feedback between different layers of the park management for an effective patrol deployment in the DBR. Forty six newly deployed DBR staff have been trained on SMART data collection, map reading, compass, and GPS use. The rapid response team is operational in the Southern and Western sectors of the DBR and has led to the recent seizure of 216 elephants tusks last December. The senior staff (head of units, head of sectors have received more comprehensive training on PDA installation, troubleshooting, SMART data querying, SMART mission planning and reporting with SMART.

In DDNP, the head of anti-poaching was maintained and able to carry out an introduction to the SMART approach and SMART data collection with the remote assistance of ZSL technical advisor. The exchange visit carrying out with the DBR staff was a good opportunity to share experience which based on feedback has helped the patrol team in DDNP to improve on the patrol tactics and field coordination. In both protected areas we have noticed a clear progression of the number of patrols to a minimum of 8 per month. | We will finalise the construction of the strong room at the river post at equip the river post so that it can be permanently maned

For DDNP more training for field ecoguard will be carried out to put them up to speed. |
| | 0.3 Numbers of arrests and successful prosecutions relating to wildlife crime in Cameroon increase relative to baseline levels (determine at start of project) by 15% end year 2 and 30% by end of year 3. | In progress | |

	0.4 Numbers of seizures of products from pangolins and other trafficked species increases relative to baseline levels by 20% by end of year 3.	During this reporting period 203 pieces of bush meat was seized together with 03 pieces of pangolins meat and the corresponding scales.	For the next reporting period, with adoption of incentives system and the development/review of the patrol strategy, we hope to contribute to more seizures of wildlife products, including pangolin scale
Output 1. Monitoring systems in place and information used to track and characterise the nature of trade and use of species affected by trafficking in Cameroon with focus on pangolins .	1.1 CITES database and reporting protocols established to record pangolin trade data by month 18 1.2 At least 30 enforcement agents trained in reporting and demonstrate ability to follow protocols by end of month 9 1.3 International ports and airports courts, police authorities and MINFOF regional delegations, recording data on pangolin trade/trafficking by start of month 20 1.4 At least 5 major bushmeat markets being monitored for pangolin trade and database being populated by month 12 1.5 Data being collected and collated into central database on pangolin trade/crime by month 24 1.6 Data collected on pangolin use from consumers at bushmeat markets beginning end of month 4 1.7 Pangolin trafficking and use for Cameroon characterised beginning month 22 and revised annually 1.8 ExCiteS data collection protocols and database established for community resource monitoring to include pangolins and other traded species.	CITES database and protocols established. Training of agents has occurred in law enforcement training, but specific CITES training will occur in Y3. International port agents have been trained. Five bushmeat market and consumer surveys have been conducted in two seasons, the first survey has been analysed and reported on. Data is being collected and prepared for entry into centralized database. The nature of pangolin trafficking in Cameroon is increasingly clear and will be reported on in Y3. ExCiteS - Establishing the key trafficking routes through the southern and eastern Dja through community consultation, initiating seven co-designed, community-led *Sapelli* projects along key wildlife trafficking routes. Wildlife crime data: as of 24th April 2018, 503 reports have been submitted from community teams, along with 434 photo and audio files. This equates to an average of 12 reports a week. The most common report was gun cartridges. Each report is geo-located and timestamped, allowing temporal and spatial trend analysis. An interesting outcome is re-establishing the cost of wildlife crime information. Whilst ecoguards currently provide much of wildlife crime information, they receive a salary. Communities which are already invested in tackling wildlife crime due to its effect on their lives and livelihoods, can, as shown here, provide high quality data without huge pay-outs. For the current project, the average cost per data point is 300 FCFA (£0.40). Despite lack of action from law enforcement, and, therefore, a difficulty in achieving direct action on the ground, some communities have attributed reduced numbers of traffickers and increased instances of large mammal interaction to the project. The major effect here is likely the deterrent: traffickers become aware that communities now have a way to securely report wildlife crime. One community told us: "The project has reduced poaching here. We see a gorilla near the village now, just near the river there". Awareness of community potential in data collection and conservation has risen greatly amongst community members, local and international non-governmental organisations (NGOs), and MINFOF officers. Strong relationships have been built with these actors, supporting the long-term continuation of the project. Community	

		empowerment had begun before any reports had been taken, and has only heightened over time. Testimonies from reporters include: "I am very happy with this work as it will enable us to save the forest for our children"; "If our records are registered we will be very happy. It will give us control over the forest"
Activity 1.1: Review of existing systems and information within MINFOF delegations, conservation services, courthouses and customs for monitoring, recording and reporting information on cases of illegal trade in pangolins and other trafficked wildlife		Review is underway by partner TRAFFIC and upcoming meeting will provide guidance as to the way forward.
Activity 1.2: Development of data collection and reporting systems and associated toolkits/materials, data sharing protocols between government agencies and central storage database with CITES Scientific Authority		Data collection and reporting systems developed and AFRICA TWIX database being promoted as centralized database
Activity 1.3: Training delivered to key stakeholder groups		Training delivered to international port customs agents, ecoguards, MINFOF leadership so far, more training is required aimed at specific CITES responsibles
Activity 1.4: Data being collected, collated and reports being produced		In progress
Activity 1.5: Key bushmeat market and consumer surveys initiated		High and low hunting season bushmeat market and consumer surveys completed, the first one being analysed and reported on
Activity 1.6: Annual report on pangolin trade and use produced		In progress
Activity 1.7: Participatory consultation with communities in DBR and DDNP on establishing monitoring system using the ExCiteS system		Consultation was carried out with 17 indigenous and local communities in the southern and eastern regions surrounding the Dja Biosphere Reserve. Discussions were held on community characteristics, forest use, and concerns over the forest. If illegal wildlife crime was brought as a concern by the community, this was discussed further and the ExCiteS reporting system was introduced. Through this process, a final set of seven villages are actively engaged in reporting through using the ExCiteS tool *Sapelli*. Despite holding consultation meetings with communities around DDNP, the work was not able to extend to communities surrounding DDNP due to the problematic situation occurring in the region. As well as this, the level of work required to extend the project to more villages than seven would have been unfeasible in the time period allocated.
Activity 1.8: ExCiteS protocols, database and training developed and delivered to local communities around DBR and DDNP		The ExCiteS process of free, prior, and informed consent, community protocols, and *Sapelli* training was carried out with seven communities around the Dja Biosphere Reserve. This process was extensive to ensure that local community members had maximum participation and that the whole process was community-led, focusing on issues which they

		themselves have. An active database is being maintained which holds all submitted reports.
Activity 1.9: Communities collecting information on pangolins and other wildlife through ExCiteS		The seven indigenous and local communities involved in using *Sapelli* have so far contributed 503 reports, including 434 photo and audio files. These reports include illegal wildlife crime data such as killed animals, poacher's cabins, and illegal traps, as well as live animal monitoring through recording footprints and encounters.
Output 2. Adaptive management for site based protection using the SMART approach being implemented in at least two key sites	2.1 Incidence of poaching and seized pangolin and other wildlife products in and around DBR and DDNP decline from initial baselines by 25% by year 3	During this reporting period 201 pieces of bush meat was seized together in the DBR with 03 whole pangolins and 03 seizures of scales. During this reporting period, encounter rates of key wildlife species were:
	2.2 Population indices for pangolins and other wildlife show no decline from baselines over project period	- Direct observations/km: 0.0003 for pangolin, 0.0031 for elephant, 0.0022for gorilla, 0.0024 for chimpanzee
		- Footprints/km: 0.0224 for pangolins
	2.3 ExCiteS data collection protocols and database established for community engagement in reporting illegal activities and monitoring law enforcement actions	- Dungs/km: 0.0601 for elephant
		- Nests/km: 0.0120 for gorilla, 0.0187 for chimpanzee
		These results indicated a reduction in pangolin direct observations, whereas for other key wildlife species these rates tended to be stable.
	2.4 Indicator to demonstrate SMART is effectively implemented – production of reports and evidence of use in adaptive management	To date, for the DBR, SMART mission reports are all generated by the head of each sector after a debriefing procedure during which data are visualised. The SMART mission report helps in preparing the plan for next patrol deployment
Activity 2.1: Review of existing site based protection at DBR, DDNP and surrounding buffer zones. Identification of equipment and other resourcing needs, training needs and refinement of existing data model and collection. Mapping out of implementation plans.		The year two of the grant has helped strengthen the SMART implementation process after the initial SMART setup (field visit to review the site-based protection efforts, systems and the available resources) and implementation in both protected areas. In the DBR, patrols are being carried out in an adaptive fashion with regular planning (targets, objectives, briefing and debriefing, etc.) based on previous patrol data; briefing and debriefing meeting being regularly organised. Also, quarterly coordination meetings were held during which site-based evaluations are carried out to monitor progress and achievement. During these meetings the management team of the Dja Biosphere Reserve has identified the need to increase vehicle and boat patrols, the completion of the river post to get the ecoguards closer to their zones of operation. For intelligence gathering and information verification, motorbikes were also identified for purchase. The renovation of operation rooms and wildlife military training were also identified as priority activities to be carried out for successful patrol mission.

In DDNP, the development and rollout of a SMART based patrol system was done through a critical review of the current Law Enforcement Monitoring (LEM) following the system configuration and training of DDNP patrols and management teams. To that regard, within this grant, an exchange visit between DBR and DDNP SMART team was organised for knowledge and experience sharing from the 17th to the 21st of April 2017. The joined armed patrol of 10 men was a mix of DBR and DDNP patrol staff. Following a review of the park patrol coverage pattern, a gridded approach to ensure full SMART patrol coverage and repeatability was suggested and agreed upon by DDNP management team. From the 25th to the 30th of March 2018 a DDNP LEM coordination and evaluation meeting was held in Bertoua to evaluate progress made since last evaluation. The results shows that number of issues (see report exchange visit) still need to be dealt with e.g 1-DDNP team deployment from Bertoua not efficient; best to have headquarters build as soon as possible and get the majority of ecoguards based in Deng Deng; 2-poor discipline (lack of proper patrol uniform, attendance, presence in the field, etc.); 3-no rapid response team nor procedure for rapid response (within hours) or team reinforcement fully in place; 4- ecoguards linkage/dependence/interaction with the villages too high, etc.

In both protected areas there has been good progress although it has slowed down afer the nationwide MINFOF staff redeployment in 2017 during which over 90% of DBR and DDNP SMART-trained staff were shifted to other protected areas. In order to be able to continue carrying patrols using the SMART approach, the DBR SMART system was immediately updated (to include new names and references) and a training session on data collection, map reading, compass, and GPS use organised. For DBR, the training was held in Somalomo from the 6th to the 9th of October 2017 and involved 46 DBR newly appointed ecoguards. Advanced SMART training sessions were conducted for all four Heads of sector, the Conservator, the Head of Anti-Poaching unit, and three DBR SMART ecoguard focal points (19th to 23rd February, 2018). Two patrol/SMART coordination meetings were organised from the 4th to 8th of September in Somalomo and from the 2nd to the 22nd of January 2018 in Djoum to review current surveillance and patrol approaches using SMART.

For DDNP, the SMART software was updated to version 5.0.3 and the names of new staff registered in the system. The head of the anti-poaching unit and the new DDNP SMART focal was trained on SMART data cleaning, querying. A report template for the park was jointly

	developed in line with the request contained in the procedure manual submitted to EDC for validation. We have also developed an incentive scheme to motivate patrol effectiveness in the DBR. This scheme has been on test to see its effect on patrol performance.
Activity 2.2: Equipment sourced, SMART training delivered to PA senior management and implementation plan roll out commenced	Following the ZSL-DBR SMART evaluation meetings, additional 12 PDA and 6 powerbanks, 2 motorbikes, additional 127 Uniforms, 124 rubber boots, 72 raincoats, 44 socks were sourced and delivered to DBR to ensure teams continue to collect data even during very poor weather conditions. During this reporting period, there was an internal deployment within the DBR and the new head of the DBR Southern sector underwent an intense 2 days SMART training followed by regular remote coaching to make sure the data collection, cleaning and sharing protocol are respected for effective adaptive patrol management. Also, a patrol tactical training was delivered in May 2017 by a UK firm to strengthen DBR selected rangers capacity in wildlife patrol skills, enhanced operational field security, effective intelligence gathering and how to conduct secure exploitation/arrest operations. A reinforced anti-poaching vehicle for the rapid response team was purchased. This vehicle was delivered with a driver and the maintenance and fuelling is provided by ZSL. This vehicle and the rapid response squad led by the head of the anti-poaching unit carried out last December one of the most important IWT operation that led to the seizures of 216 ivory tusk and other elephant parts. A river post with 04 roofed wooden platforms and an operation room are available to use along the Dja river and will allow the ecoguards team to make more river patrols and be close to the park (not a day trip away at Djoum) for effective anti-poaching response. An aluminium boat adapted for the Dja river context is being built and will soon be put on the river Dja for patrols. To that regard boat piloting training for selected ecoguards was organised along the river from the 13 to the 16th of June 2017. Also, our office in Djoum and Lomie were renovated and fully equipped with office stationaries including printers and others. Seemingly the operations rooms in Lomie, Meyonmessala and Djoum were all fully equipped. Patrolling continues in the DBR and, while the patrol strategy is yet to be fully developed, we are still testing our proposed patrol incentive scheme. Under this scheme, the ecoguards have increased their performance in terms of seizures and continued their efforts on arrests: 27 firearms

	(revised figure for Year 1: 23), 286 live ammunitions (revised figure for Year 1: 226), arrested 21 poachers (revised figure for Year 1: 33) and extended the park coverage to up to 93% (patrol coverage is based on the proportion of 5 km^2 grid cells through which a patrol passed at least once) with 189 cells covered out of 203.
	For DDNP, an incentive scheme validated by EDC is being utilised and for this reporting period, 05 firearms, 7 live ammunitions, arrested 3 poachers and extended the park coverage to up to 60% (patrol cover is based on the proportion of 3 km2 grid cells through which a patrol passed at least once) with 48 cells covered over 79. Still in DDNP a field testing and experience sharing mission was conducted by ZSL, the consultation Firm Brl and the DDNP Conservation Service at the DDNP southern sector from the 17th to the 21st of April 2017. The field test involved a total of 04 ecoguards from DBR and 06 from DDNP including the head of the protection Unit
	Following an initial SMART system configuration and a review of current park patrol coverage status, a gridded approach to ensure full SMART patrol coverage and repeatability was suggested and agreed upon. Another aspect of this exchange visit was for the teams (DBR and DDNP) to be able to conduct armed patrols to the Southern sector of the park using map and navigation tools, camping at night and using SMART-Cybertracker configured PDA for data collection following the protocol. A patrol debrief and PDA data downloading was also carried out during this mission with both teams.
Activity 2.3: Ongoing support by ZSL SMART technical advisor to DBR and DDNP for SMART implementation to include support for monthly site visit and reports, 6 monthly evaluation workshop and adaptation	Following the initial setup and training in SMART at both manager level and field level in both park (DBR and DDNP), refresher training and remote support have been ongoing to ensure all the staff are capable of effectively patrolling according to agreed protocols.
	ZSL is providing patrol mobilisation funds to DBR and ensures patrols are carried out based on initial agreed plan (targets, areas to cover, number of days, etc.). So far, we have again succeeded in organising three evaluation meetings (11 and 12 April 2017; 04 to 08 September 2017, 20 to 21 January 2018) discuss patrol performance and approaches and adapt patrol strategy accordingly.
	With regard to DDNP, a SMART working session took place in Bertoua with the management team of Deng Deng National Park (DDNP) from the 25th to the 28th of March 2018. The objectives of the workshop were to do a review and update (software and new personnel) the SMART system, evaluate the SMART implementation based on recommendations of our

		last field visit report. This mission also helped to configure SMART automated patrol reports based on the provisory template designed by the park authorities.
Activity 2.4: Participatory consultation with communities in DBR and DDNP on establishing monitoring system using the ExCiteS tool		Consultation was carried out with 17 indigenous and local communities in the southern and eastern regions surrounding the Dja Biosphere Reserve. Discussions were held on community characteristics, forest use, and concerns over the forest. If illegal wildlife crime was brought as a concern by the community, this was discussed further and the ExCiteS reporting system was introduced. Through this process, a final set of seven villages are actively engaged in reporting through using the ExCiteS tool *Sapelli*. Despite holding consultation meetings with communities around DDNP, the work was not able to extend to communities surrounding DDNP due to the problematic situation occurring in the region. As well as this, the level of work required to extend the project to more villages than seven would have been unfeasible in the time period allocated.
Activity 2.5: ExCiteS protocols, database and training developed and delivered with communities		The ExCiteS process of free, prior, and informed consent, community protocols, and *Sapelli* training was carried out with seven communities around the Dja Biosphere Reserve. This process was extensive to ensure that local community members had maximum participation and that the whole process was community-led, focusing on issues which they themselves have. An active database is being maintained which holds all submitted reports.
Activity 2.6: Communities collecting information on, resources use, law enforcement and pangolins and other wildlife through ExCiteS		The seven indigenous and local communities involved in using *Sapelli* have so far contributed 503 reports, including 434 photo and audio files. These reports include illegal wildlife crime data such as killed animals, poacher's cabins, and illegal traps, as well as live animal monitoring through recording footprints and encounters.
Output 3. Enforcement agents, prosecutors, courthouse staff and customs agents are competent in proper application of wildlife laws and reporting relating to pangolins and other trafficked species	3.1 Training materials, protocols and toolkits developed by month 6 3.2 At least 30 enforcement agents, prosecutors courthouse staff and customs agents are trained in the proper application of wildlife laws and CITES reporting tailored to their specific role months 6-24 3.3 Civil society oversight and media coverage of key criminal cases by month 12	ZSLs bespoke Basic Law Enforcement Training (BLET) programme established for frontline MINFOF and border agents, including hard-copy of training. Pocket field guide for MINFOF agents. ZSL staff trained in internal protocols of intelligence management. To date some 177 law enforcement agents from multiple agencies have been trained in law enforcement techniques including wildlife product recognition and wildlife legislation, as relevant to their roles. ZSL uses its influence and contacts to ensure that major criminal cases relevant to IWT are publicised through social media accounts on Twitter and Facebook, as well as influencing partner organisations and international governments to do the same. Freedom of the press in

		Cameroon is stymied somewhat and is heavily influenced and controlled by the state, therefore, despite acquiring potential journalistic contacts. This is something which needs to be developed accordingly.
Activity 3.1: Training materials developed in consultation with relevant agencies. Materials tailored to knowledge and roles of each agency and participants.		Between April 2017 and March 2018, ZSL has continued its programme of providing relevant training to law enforcement agents in Cameroon. The training provided is subject to a needs assessment made by an experienced former law enforcement officer, and training elements are based upon existing skills and knowledge. The concept of Basic Law Enforcement Training (BLET) has been implemented to provide relevant basic, core policing skills to police, forestry and wildlife agents, customs and border officials, thereby augmenting their professional capacity to fight wildlife crime. The training is focused on front line and initial investigations, and includes role-specific training (i.e. wildlife product recognition, cyber-investigations and open source intelligence, non-confrontational interviewing, or passenger profiling techniques). All training is supported by written reference documentation, and ongoing remote and in-country support and guidance which is available at all times through ZSL Law Enforcement Advisor.
Activity 3.2: Training courses delivered to enforcement agents, customs, prosecutors and court house staff (3 per year).		Between April 2017 and March 2018, ZSL implemented and delivered training for 90 law enforcement agents. 42 police, customs and gendarmes were trained from Douala and Yaounde international airport anti-trafficking teams. This training included specific input into wildlife laws and wildlife product recognition. AN element of real-world practical exercise was undertaken at the airport to enhance and illustrate the theoretical elements of this training, which was delivered with colleagues from the French Police Nationale and Gendarmerie Nationale. A further 48 ecoguards from MINFOF (Ministry of Forestry and Wildlife) received training in Basic Law Enforcement Techniques, which incorporated evidence gathering and integrity, providing evidence at court, crime scene response, note-taking and interviewing techniques. A conference was held with court staff from the courthouse at Djoum (in southern Cameroon) to ensure understanding about the complexity and the importance of dealing with IWT offenders, and the necessity to consider (where reliable evidence exists) suitable sentencing to dissuade others.
Activity 3.3: Training assessments conducted before and after training to assess participant knowledge and understanding and obtain feedback. Information to be used to adapt future sessions and determine further training requirements.		At every training session, participant's knowledge is tested by virtue of a simple ice breaker exercise. The results of this are recorded by participants. As assessment and pictorial feedback exercise at the conclusion of the training, as well as (where possible and authorised) on-the-job real-world activity, enables both the trainer and the participants to assess and view progression in the training. All ZSL training comprises a theory-demonstrate-practice concept, which enables the participants to test their

	skills in a role-play and/or practical scenario, drawn from real-life cases. Feedback and evaluation documentation is retained by the trainer (ZSL Law Enforcement Advisor) for reference and evaluation to inform further training needs and content of training courses for the future.
Activity 3.4: Follow up training courses delivered based on evaluation and feedback	In-country and remote follow-up of training is undertaken by ZSL Law Enforcement Advisor and the in-country Law Enforcement Officer. The impact of training is assessed by virtue of operational activity, as illustrated by the anti-trafficking teams seizing ivory and pangolin scales in August 2017 following ZSL training, and in December 2017, ZSL-trained and supported MINFOF agents making 3 arrests and a seizure of over 400 kg of ivory from a corrupt military official. The remote support function enables investigative advice and support to be offered, at the scene and in real time. In respect of further training and support, complementary training courses and guidance are being planned for the newly installed anti-smuggling teams at the international airports. The content of this training will be considerably informed by feedback gleaned from participants in previous training. Following on from Basic Law Enforcement Training, agents will be identified who display the requisite aptitude to undertake more advanced (proactive) law enforcement training which will introduce them to more complex and though-provoking law enforcement techniques.
Activity 3.5: ZSL Law enforcement co-ordinator provides ongoing support for case follow up and communicating progress of court cases and incidents of wildlife crime	The in-country Law Enforcement Officer is responsible for liaising with, and supporting MINFOF judicial services and any interested parties in major wildlife crime court cases. Of note, ZSL has attended and contributed to case conferences in 6 cases of trafficking and/or poaching related crime, including possession of firearms. In particular ZSL has been instrumental in supporting and ensuring appropriate judicial follow-up, with partner agencies, in the seizure of over 400kg of ivory in Djoum in December 2017. The conferences and meetings with MINFOF and judicial authorities are recorded on a weekly basis, along with any pertinent judicial disposals known about.

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Illegal and unsustainable hunting and trafficking of pangolins and other threatened wildlife in Cameroon is reduced, resulting in sustainably managed populations of the three pangolin species and enabling Cameroon to meet its CITES and CBD commitments.			
Outcome: Strengthened capacity in Cameroon to monitor and reduce illegal hunting and trafficking of pangolins and other wildlife.	0.1 The nature of trade in pangolins and other trafficked species in Cameroon is documented by the end of year 3 0.2 Effective management and protection in at least two key protected areas known to contain populations of pangolins and other trafficked species by the end of year 3 0.3 Numbers of arrests and successful prosecutions relating to wildlife crime in Cameroon increase relative to baseline levels (determine at start of project) by 15% end year 2 and 30% by end of year 3. 0.4 Numbers of seizures of products from pangolins and other trafficked species increases relative to baseline levels by 20% by end of year 3.	0.1 CITES and national reports on national pangolin trafficking and use 0.2 SMART reports and other protected area management reports; annual State of Conservation report from DBR 0.3 Number of prosecutions and sentences from court proceedings and police reports on criminal cases 0.4 CITES database on traded species (established by this project)	Turnover of government staff does not exceed ability to provide refresher training and deplete skillset within relevant trained teams. ZSL Cameroon is working to have SMART adopted institutionally by MINFOF across all protected areas which, if successful, would minimize this risk as staff transferred from other protected areas will have previous experience with SMART. The government of Cameroon continues to support international efforts to view illegal wildlife trade as a serious crime and maintains its commitment to support efforts to address it Strengthening law enforcement capacity leads to a reduction in incidence of wildlife crime Reducing wildlife crime reduces pressure on wild populations of pangolins and other trafficked species
Outputs: **1**. Monitoring systems in place and information used to track and characterise the nature of trade and use of species affected by trafficking in Cameroon with focus on pangolins	1.1 CITES database and reporting protocols established to record pangolin trade data by month 18 1.2 At least 30 enforcement agents trained in reporting and demonstrate ability to follow protocols by end of month 9 1.3 International ports and airports courts, police authorities and MINFOF regional delegations, recording data on pangolin trade/trafficking by start of month 20	1.1 Protocol documents 1.2 Training materials and attendance records, and knowledge change assessments. 1.3 Database records and reports 1.4 Consumer survey data 1.5 Reports on national pangolin trafficking and use. 1.8 Reports are verified through photo media attached, as well as complementary reports and MINFOF staff	Turnover of government staff does not deplete skillset within relevant trained teams Effective application of monitoring systems enables characterisation of trade in pangolin and other trafficked species Photographs are real and reports represent the situation on the ground

	1.4 At least 5 major bushmeat markets being monitored for pangolin trade and database being populated by month 12 1.5 Data being collected and collated into central database on pangolin trade/crime by month 24 1.6 Data collected on pangolin use from consumers at bushmeat markets beginning end of month 4 1.7 Pangolin trafficking and use for Cameroon characterised beginning month 22 and revised annually 1.8 ExCiteS data collection protocols and database established for community resource monitoring to include pangolins and other traded species.		
2. Adaptive management for site based protection using the SMART approach being implemented in at least two key sites	2.1 Incidence of poaching and seized pangolin and other wildlife products in and around DBR and DDNP decline from initial baselines by 25% by year 3 2.2 Population indices for pangolins and other wildlife show no decline from baselines over project period 2.3 ExCiteS data collection protocols and database established for community engagement in reporting illegal activities and monitoring law enforcement actions Indicator to demonstrate SMART is effectively implemented – production of reports and evidence of use in adaptive mgmt.?	2.1 SMART patrol reports 2.2 SMART review workshop reports 2.3 SMART reports track poaching incidence and pangolin product seizures 2.4 SMART reports show encounter rates for pangolins 2.5 ExCiteS reports are verified by ExCiteS and ZSL staff before inputting into database	Turnover of government staff does not deplete skillset within relevant trained teams Reports that are verified are real
3. Enforcement agents, prosecutors, courthouse staff and customs agents are competent in proper application of wildlife laws and reporting relating to pangolins and other trafficked species.	3.1 Training materials, protocols and toolkits developed by month 6 3.2 At least 30 enforcement agents, prosecutors courthouse staff and customs agents are trained in the proper application of wildlife laws and CITES reporting tailored to their specific role months 6-24 3.3 Civil society oversight and media coverage of key criminal cases by month 12	3.1 Training materials, protocol and toolkit documents 3.2 Training attendance records and evaluation/knowledge change reports 3.3 Media/Civil society reports (local radio, print and online national media) on cases of wildlife crime and CITES central storage database	Turnover of government staff does not deplete skillset within relevant trained teams

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

1.1 Review of existing systems and information within MINFOF delegations, conservation services, courthouses and customs for monitoring, recording and reporting information on cases of illegal trade in pangolins and other trafficked wildlife

1.2 Development of data collection and reporting systems and associated toolkits/materials, data sharing protocols between government agencies and central storage database with CITES Scientific Authority

1.3 Training delivered to key stakeholder groups

1.4 Data being collected, collated and reports being produced

1.5 Key bushmeat market and consumer surveys initiated

1.6 Annual report on pangolin trade and use produced

1.7 Participatory consultation with communities in DBR and DDNP on establishing monitoring system using the ExCiteS system

1.8 ExCiteS protocols, database and training developed and delivered to local communities around DBR and DDNP

1.9 Communities collecting information on pangolins and other wildlife through ExCiteS

2.1 Review of existing site based protection at DBR, DDNP and surrounding buffer zones. Identification of equipment and other resourcing needs, training needs and refinement of existing datamodel and collection. Mapping out of implementation plans

2.2. Equipment sourced, SMART training delivered to PA senior management and implementation plan roll out commenced

2.3 Ongoing support by ZSL SMART technical advisor to DBR and DDNP for SMART implementation to include support for monthly site visit and reports, 6 monthly evaluation workshop and adaptation

2.4 Participatory consultation with communities in DBR and DDNP on establishing monitoring system using the ExCiteS tool

2.5 ExCiteS protocols, database and training developed and delivered with communities

2.6 Communities collecting information on, resources use, law enforcement and pangolins and other wildlife through ExCiteS

3.1 Training materials developed in consultation with relevant agencies. Materials tailored to knowledge and roles of each agency and participants.

3.2 Training courses delivered to enforcement agents, customs, prosecutors and court house staff (3 per year).

3.3 Training assessments conducted before and after training to assess participant knowledge and understanding and obtain feedback. Information to be used to adapt future sessions and determine further training requirements.

3.4 Follow up training courses delivered based on evaluation and feedback

3.5 ZSL Law enforcement co-ordinator provides ongoing support for case follow up and communicating progress of court cases and incidents of wildlife crime.

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

Doc 1. Market and Consumer Survey Database DI 23-001
Doc 2. TORs workshop to revitalize CITES Committee DI 23-001
Doc 3. 1st_Analysis of Bushmeat Markets and Consumers in Cameroon DI 23-001
Doc 4. UCL 2018 report - Implementing Sapelli through ExCiteS DI 23-001
Doc 5. DBR SMART Patrol Report Yr2 DI 23-001
Doc 6. Deng Deng - DBR SMART exchange DI 23-001

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	x
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	x
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	x
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	x
Have you involved your partners in preparation of the report and named the main contributors	x
Have you completed the Project Expenditure table fully?	x
Do not include claim forms or other communications with this report.	