Illegal Wildlife Trade (IWT) Challenge Fund
Final 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.

IWT Challenge Fund Project Information

Project reference	**IWT029**
Project title	An integrated, multi-scale approach to combating wildlife trafficking in Uganda
Country(ies)	Uganda
Contract holder institution	Wildlife Conservation Society
Partner institution(s)	Uganda Wildlife Authority (UWA), Natural Resources Conservation Network (NRCN), Maisha Consulting Ltd, Department of Biology, University of York (UoY)
Total IWT grant value	£ 449,171
Start/end dates of project	April 2016 to June 2018; Final Report
Project leader's name	Simon Nampindo
Project website/blog/social media	https://uganda.wcs.org/Initiatives/IWT-and-CWT.aspx
Report author(s) and date	Geoffrey Mwedde & Simon Nampindo, 31st July 2018

1.   Project Summary

Over the past two decades, UWA's effective park PA management has led to increases in majority of large mammal populations within parks and wildlife reserves. However, since 2011, there has been an upsurge in poaching, particularly of elephants for ivory, pangolins for scales and hippo for teeth, concerning given the limited populations in the region. Uganda is a major trafficking route for illegal wildlife trade from neighbouring countries: Democratic Republic of Congo, South Sudan, Tanzania and Kenya through to Asia, particularly Malaysia, Thailand and China. One major impediment to solving this problem is lack of capacity within UWA to gather intelligence and target middlemen involved in the trade. While UWA has strong law enforcement within its parks, it has insufficient trained staff, intelligence networks, and links with police and military to tackle wildlife trafficking through to its border posts. Without good intelligence, it is difficult to arrest and effectively prosecute criminals involved in wildlife trafficking.

In addition, bribery and corruption in Uganda often lead to ineffective enforcement of wildlife crimes. Well-connected suspects can talk or buy their way out of being prosecuted. As a result, penalties become insignificant and offenders are released to continue trafficking wildlife. Unfortunately, at the start of this project, UWA did not have the manpower to track these cases.

IWT has devastating effects on local communities, particularly those neighbouring protected areas as it causes insecurity and entices local people to engage in both poaching and trade. Recognizing the need to involve in combating wildlife crime and extend benefits of conservation to the communities living around the protected areas, UWA shares 20% of all gate receipts with local communities around its protected areas. However, this revenue hardly targeted people who bear the main costs of conservation, particularly those who experience having crops or livestock destroyed by wildlife.

This project therefore proposed to address three major challenges, namely 1) the lack of effective intelligence capacity at UWA to stop wildlife trafficking, 2) ineffective prosecution, and 3) lack of accountability and increases in poaching of wildlife, which threatens Uganda's tourism industry, deprives communities of rural livelihoods and robs the country of its natural heritage. In order to address the critical issues outlined above, we set out to a) tackle trafficking routes to the border posts; b) ensure that bribery and corruption do not allow convicted offenders to escape the rule of law; and c) improve anti-poaching patrolling in key protected areas.

2.   Project Partnerships

Uganda Wildlife Authority:

Having supported conservation in Uganda for over 60 years now, WCS has been working with Uganda Wildlife Authority since its establishment in 1996. UWA is responsible for the management of national parks and wildlife reserves in Uganda as well as wildlife outside protected areas. WCS has supported UWA to initiate and implement several conservation projects as well as ecological research monitoring activities. These include conducting aerial and ground surveys of large mammals, carrying out biodiversity surveys in the parks, training and rolling out of MIST across the protected areas, and more recently training and rolling out SMART (Spatial Monitoring and Reporting Tool) in all UWA PAs, among others. In the past, WCS supported UWA to initiate training of Wildlife Crime Unit (WCU), trained the WCU and field staff in (1) planning out an intelligence gathering operation, (2) collecting intelligence information, and (3) Web intelligence.

Through the above efforts, WCS has been able to contribute significant amounts of data to inform management plans and strategies for wildlife management in the country. Under this project, UWA staff have been at the core of receiving trainings and application of all tools provided. The headquarter staff have been responsible for ensuring that the right staff receive training and equipment, and ensuring that data is entered and reports are produced and used to improve prosecution of wildlife crime offenders and combat poaching, IWT, and trafficking. The park rangers are responsible for conducting patrols using SMART technology and analysing patrol data to plan activities for law enforcement.

Maisha Consulting Ltd:

Maisha Consulting Ltd (Maisha) has been working with WCS in Uganda and other countries in Africa to provide training in intelligence gathering and analysis of intelligence data. Maisha has a strength of technical capabilities that conservation NGOs such as WCS do not have as well as contacts with other law enforcement agencies. Maisha trained the Uganda police force in the use of sniffer dogs to tackle trade in drugs and weapons and partnered with WCS and UWA to establish a Canine Unit at Entebbe to detect ivory and other wildlife products trafficked through the airport

Maisha, with support from WCS has provided training to UWA's Wildlife Crime Unit staff in data analysis and the targeting of middlemen in the trafficking routes using network analysis. Maisha is now providing more detailed follow-up training to UWA and the SLEU under this project with the aim of improving UWA's and WCU's recruitment, handling and management of a network of informers; strengthening their ability to organize intelligence networks; and maximizing their process of transferring information from the field to the SLEU at UWA's headquarters.

Natural Resource Conservation Network:

A national NGO, NRCN is a network of professionals whose aim is to ensure timely investigation, prosecution and reporting of wildlife crime in Uganda. For a long time NRCN was part of the larger Eagle Network (http://www.eagle-enforcement.org/) of NGO's working across Africa to ensure that wildlife crimes are prosecuted effectively. NRCN prosecution has changed the trend in wildlife crime law enforcement in Uganda by following all cases to their logical conclusion, noting and fighting incidences of bribery attempts, and lodging appeals when cases are decided outside the law.

NRCN is supporting UWA to prosecute offenders and ensure that they cannot bribe their way out of paying fines or serving a prison term. NRCN's activities are led by Vincent Opyene, former UWA legal counsel and a trained wildlife crime investigator and prosecutor who also coordinated a WCS-led Bushmeat free East Africa Network (BEAN) project. He works with project partners to build capacity among NRCN members (wildlife officers, prosecutors, journalists) and effectively report wildlife crime cases. On this project, NRCN spearheaded the media campaign and follow up of court cases to expedite prosecution.

Department of Biology, University of York:

Dr Colin Beale, Department of Biology at the University of York (UoY), UK, collaborated with WCS and UWA to analyse law enforcement monitoring data collected over a period of 15 years prior to commencement of this project in Uganda's PAs using MIST and now SMART (Spatial Monitoring and Reporting Tool). Colin has developed a method to analyse these data rigorously and predict where illegal activities are most likely to be encountered. Tests of these predictions are proving to significantly increase ranger detections of snares in Queen Elizabeth National Park (QENP) and Murchison Falls National Park (MFNP). In order to more effectively and efficiently deploy rangers and focus overall conservation efforts within Uganda's PAs, UoY led the process of developing a user-friendly SMART software that enables SMART software users to easily run these analyses and use results to inform patrol planning and improve law enforcement at the park level.

3.   Project Achievements

3.1   Outputs

Output 1: An effective and functioning Wildlife Crime Unit (WCU), collects and analyses intelligence information to increase arrests of middlemen

One of the main objectives of this project was to build capacity of UWA to conduct effective intelligence. In collaboration with Maisha Consulting Ltd, UWA staff at headquarters were trained in different intelligence methods and techniques. At least four senior staff at UWA were trained and mentored in intelligence methods to a level where they are able to carry out intelligence operations with minimal support from the intelligence expert. While the target was to train a minimum of 8 headquarter staff, UWA was only able to recruit four to the WCU hence the smaller number. These have greatly improved their intelligence and analytical skills and are able to generate actionable intelligence for prosecution. Through this project, the WCU has established the necessary infrastructure for better intelligence. The investigation into the February 2017 1300kg ivory seizure conducted by UWA with technical backstopping from Maisha Consulting Ltd illustrates the capacity built in the WCU by this project[1]. This investigation yielded good actionable intelligence that was used to arrest and initiate the prosecution of one trafficker who was linked to ivory seizures made in Juba and Doha weighing approximately 1000kgs in total.

In addition, the project managed to train 49 UWA rangers in Human Intelligence (HUMINT), among whom were 11 women, surpassing the targeted number of 28. These rangers have been equipped with sophisticated intelligence methods and techniques and are now better positioned to recruit and manage informers. These were in addition to 67 other UWA Intelligence Staff who were trained by Maisha with funding from UCF to enhance intelligence capacity across the entire institution right from the headquarter to the park level. Besides the trainings and refresher trainings in HUMINT and Web Intelligence (WEBINT), several

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[1] Due to confidentiality issues, this report can only be availed on request.

information management and analysis protocols were developed to provide a reference guide to UWA. These include use of I2 and Sentinel software protocols, protocol for use of Cellebrite UFED Touch[2] purchased for UWA under this project, and protocol for cooperation with District law authorities on intelligence matters. Further, standard operating procedures on how to deal with incoming information were also developed. Both protocols and SOPs are annexed to Maisha's (2017) Report on Training of WCU in HUMINT and WEBINT sent separately. Snapshots and summaries of the report are attached in Annex 4.

Through the above efforts, this project intended to have at least 50% of the wildlife crime cases prosecuted by UWA headquarters using analyses provided by WCU compared to less than 10% that used the same in 2015. Due to UWA's internal weaknesses in managing the online wildlife offenders' database, there is sufficient data on court cases to verify this indicator. However, the existing data shows a 159% increase (Figure 1 below) in intelligence led arrests in the year 2017 compared to 2015 (before the project), which could indicate the contribution of intelligence to prosecution. While WCS made significant investment in building the capacity (provided computers, fingerprint readers and trained data entrants) of UWA to capture offender data and to produce quality and indisputable analyses, poor supervision of the offenders' database has been a challenge. Attached the latest wildlife offenders' database monitoring report by UWA for cross reference.
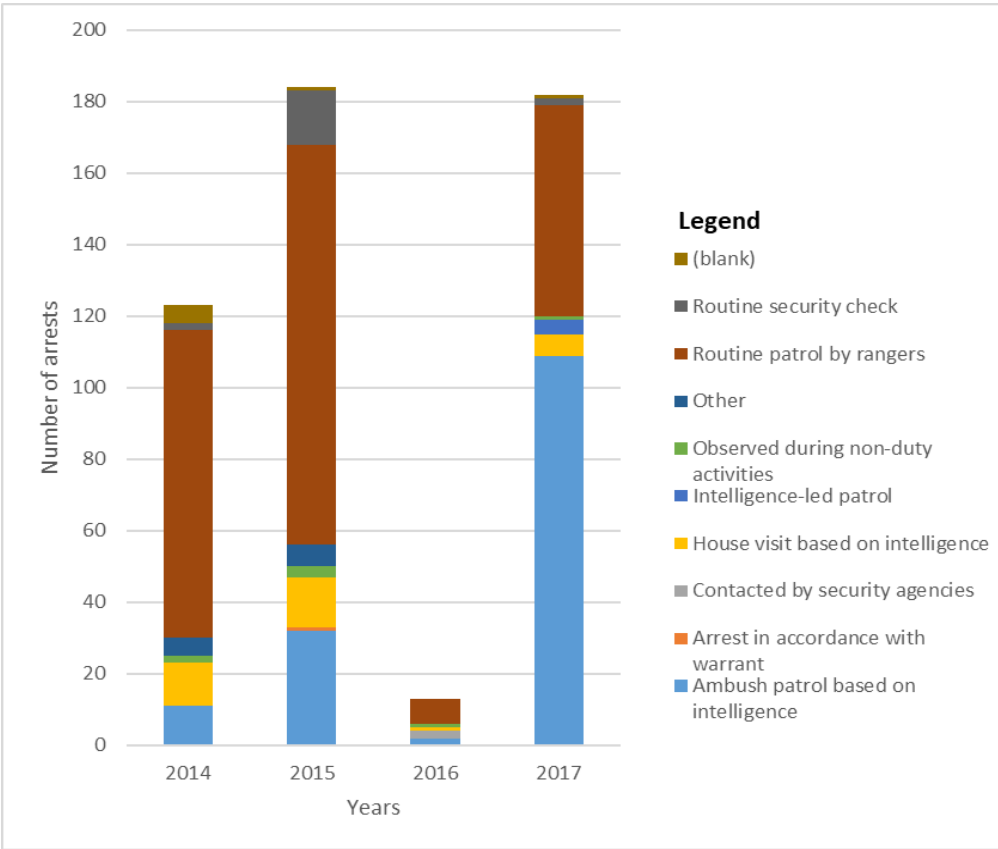

Figure 1: Graph showing number of wildlife crime offenders arrested and by type of crime. Intelligence led arrests increased by 159% in 2017 compared to 2015. Source: Online wildlife offenders' database

Output 2: Through the work of NRCN Uganda, prosecuted offenders are held accountable for wildlife crimes committed

Prior to this project, NRCN having been founded on a legal background had no exposure to media campaign dynamics. Due to the contribution of the media toward achieving the project outcome, NRCN recruited a media specialist who worked with NRCN staff to improve media engagements and led the process of developing a media strategy aimed at creating awareness and sensitisation on IWT matters. The strategy was implemented with dissemination of IWT messages targeting upcountry audiences in the first year in order to sensitise local communities

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[2] This is a forensic tool that extracts data out of cellular devices, tablets, SIM cards and memory cards

on the dangers and consequences of IWT. In the second year of the project, two leading radio stations (KFM and Dembe FM) in Kampala were used to disseminate anti-IWT messages and two leading dailies for publishing articles. It is estimated that approximately 80% of the listeners of the two radio stations heard the radio messages. Sample logs of messages disseminated are provided in Annex 4. Details are in the NRCN's *Project Report for Wildlife Crime Law Enforcement in Uganda* attached.

This project also intended to train NRCN staff in media campaign. However, rather than focus internally on NRCN, the training scope was broadened to target news editors from different media houses around the country. A total of twenty-one editors of whom five were women attended the training. We believe this had far greater impacts as the editors are more enlightened about IWT issues. The editors were engaged to discuss their role in addressing IWT issues and reasons why traffickers use Uganda as a trafficking route. This was to create awareness and interest among the media in IWT issues. The full report of this training is separately attached.

Before this project, NRCN had never published any newspaper or television features within Uganda highlighting its activities to prosecute wildlife crime offenders and planned to produce at least 6 features in the second year of the project. NRCN has surpassed this target by featuring in 27, 26, 8 and 15 wildlife crime stories published via the internet, print media, radio and television respectively. The articles aimed at sharing information on wildlife law-enforcement and associated challenges such as corruption, collusion, and connivance in addressing illegal wildlife trade issues and building capacity of local media to report on issues related to wildlife crime. It is estimated that over 30,000 individuals across the country accessed the articles published in the print media. Samples of the and articles are links to other resources used are given in Annex 4.

Further, social media advertising was used to disseminate anti-IWT messages. This attracted public participation and resulted in an increase of members of the NRCN Facebook group (https://www.facebook.com/groups/164883594511605/) from 846 members in December 2017 to a tune of 1726 as of 15th March 2018, registering a 104% increase. The messages posted on Facebook on IWT topics registered higher number of average interactions (8144) compared to messages posted before December 2017 with an estimated average of 1096 impressions. The average interaction of people on the NRCN Facebook posts grew by 643.1 % from December 2017 to 15 March 2018.

In addition to the media campaign, this project intended to increase the proportion of wildlife offenders monitored in prison from 5% to 75% by end of the project. Our partner NRCN now has capacity to monitor cases countrywide. Between October 2016 and March 2017, NRCN documented a total of 44 suspects arrested from 25 different locations and was able to monitor all 16 cases that were successfully prosecuted in court. The wildlife offenders held at Luzira Government prison (the biggest prison in the country) make up 44.5% of the total convicts who received custodial sentences in the year 2017 (Figure 2). However, these were not visited due to the refusal by the Officer in charge at Murchison Bay to give permission to allow access to information on the ground that it is confidential.

NRCN led the gathering and analysis of information on court fines payment which revealed that many trafficking middlemen 22% were either unwilling or unable to pay the fines and usually leave the court without paying their fines and go on the run. However, through jail visits and constant monitoring of court cases, up to 90% of the wildlife offenders who received custodial sentences are serving their jail term (Figure 3).
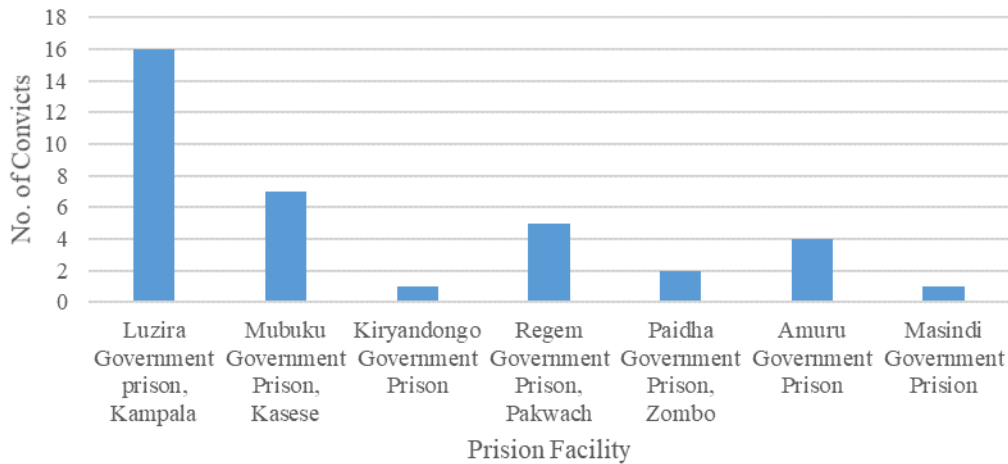
Figure 2: Wildlife offenders sentenced to different prisons in 2017 (NRCN data 2017)
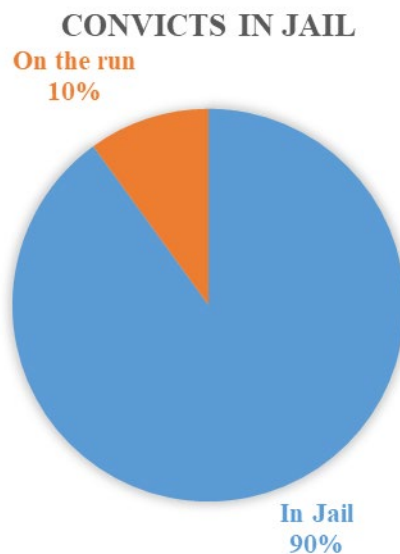

Figure 3: Proportion of wildlife offenders serving their jail time

It was also established that out the 70% cases examined in 2017, 78% of the offenders were awarded a fine sentence and duly fulfilled the fine payment while 22% didn't pay fine and are serving jail terms in default. Fines are the most common sentence imposed by magistrate courts and preferred by the high-end wildlife criminals in Uganda. However, many trafficking middlemen are still either unwilling or unable to pay the fines. Most of the offenders leave the court in the disguise of making the payment but instead go on the run.

Output 3: UWA, police, judiciary, URA, and Uganda military share information and collaborate in law enforcement to improve anti-trafficking efforts through a Wildlife Crime Coordination Task Force (WCCTF).

After several discussions UWA and the Ministry of Tourism, Wildlife and Antiquities (MTWA) fulfilled their commitment to advance efforts to create the National Wildlife Coordination Task Force (NWCCTF). An inter-ministerial meeting was finally held with the purpose of bringing together the relevant Ministries and heads of national security and law enforcement agencies to appreciate the magnitude of wildlife crime and explore ways of strengthening joint collaboration to combat poaching, illegal wildlife trade, wildlife trafficking and associated crimes. The meeting unanimously adopted the idea of creating a NWCCTF and respective government ministries/departments committed to designating desk officers to handle IWT issues. The full report with resolutions of this meeting is attached.

The respective ministries and government departments are in the process of identifying competent persons to serve on this national taskforce. Though we expected to facilitate the first planning/coordination meeting for the task force soon after the inter-ministerial meeting, the government processes of identifying and nominating representatives to the taskforce have taken longer than expected but we expect the process to be concluded soon (see NWCCTF e-mail communication extract in Annex 4). Due to the importance of the taskforce in combating IWT in Uganda, WCS is trying to raise more funds to advance this process and we look forward to more support for this from IWT.

Patrol Effort	Patrol Intensity

Output 4: Local law enforcement officers in protected areas use new capabilities in SMART to more efficiently and effectively conduct ranger patrols.

For the past two years, WCS and the University of York (UoY) joined efforts to enhance the capacity of UWA to use SMART to improve law enforcement. This was driven by the realisation that UWA spent 45-75% of its Protected Area budgets on law enforcement, yet little evaluation of the effectiveness of patrolling was done. Under this project, WCS worked with UoY in Queen Elizabeth national park to improve ranger patrols. University of York, led by Dr Colin Beale, created a software program (SMART plug-in) that that integrates with SMART to enable quick and robust analyses of SMART data to be done. Park wardens are now able to analyse SMART data in new ways use the results of the analysis to deploy their rangers more effectively. A training manual and other appropriate documentation have been developed to accompany the software. This software is capable of identifying parts of protected areas where illegal activities are likely to be prevalent for better patrol planning and ranger deployment. It freely available to SMART users in 30 countries around the world and can be accessed via the following links:

These and links to future updates can also be freely accessed on our website via https://uganda.wcs.org/Initiatives/IWT-and-CWT.aspx. For more details on the SMART software development please see University of York's Final Project Report Attached.

In collaboration with University of South California, a method to deploy rangers based on new analyses of SMART was tested in both Queen and Murchison Falls national parks. Using historic SMART data, the model successfully predicted areas where illegal activities are more likely to occur and where they are not likely to be found. A grid map showing test patrol points in Murchison Falls National Park is shown in Annex 4. This has made it possible UWA protected area managers to establish the patrol effort as well as intensity within the protected areas over a given timeframe. A research paper on this method was published and can be downloaded via *teamcore.usc.edu/papers/2017/ECML17_Gholami_Ford.pdf.*

It was observed that both patrol effort and intensity increased in the project years compared to the two years before the project but slightly decreased in QENP. The decrease in QENP is attributed to the more efficient targeted patrol method that was tested there for two years. SMART data from MFNP shows that illegal activity detection represented by a combination of snares and traps[3] increased from an average of 2.3 snares/traps per 100km walked in 2014-2015 to 5.8km per 100 km walked in 2016-2017, representing an increase of 61% detection. This increase is attributed to the enhanced capacity (training and equipment) given to the park

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[3] We used snares and traps here because UWA snare data could not be isolated in the MFNP database
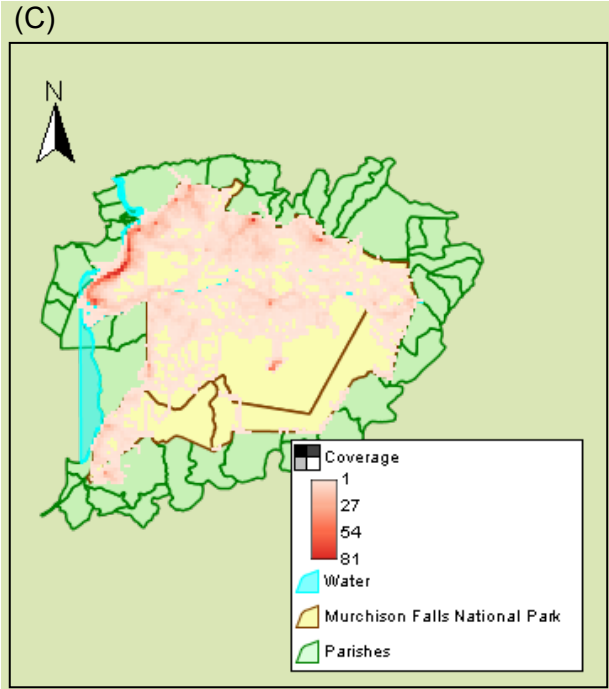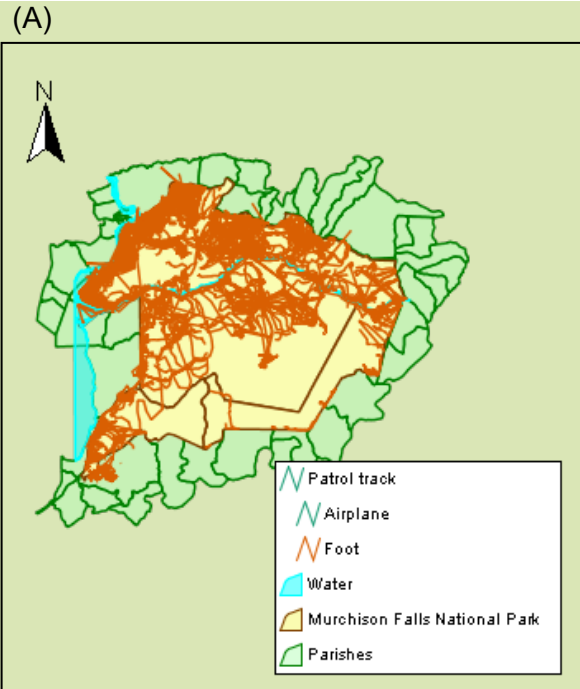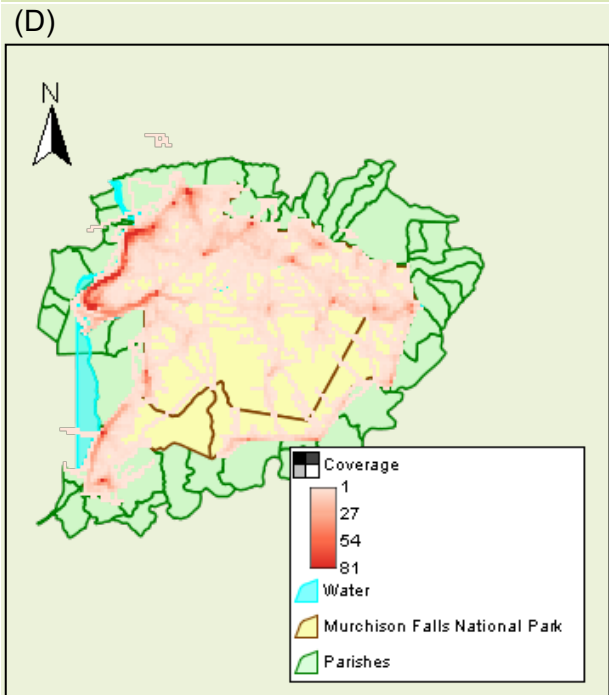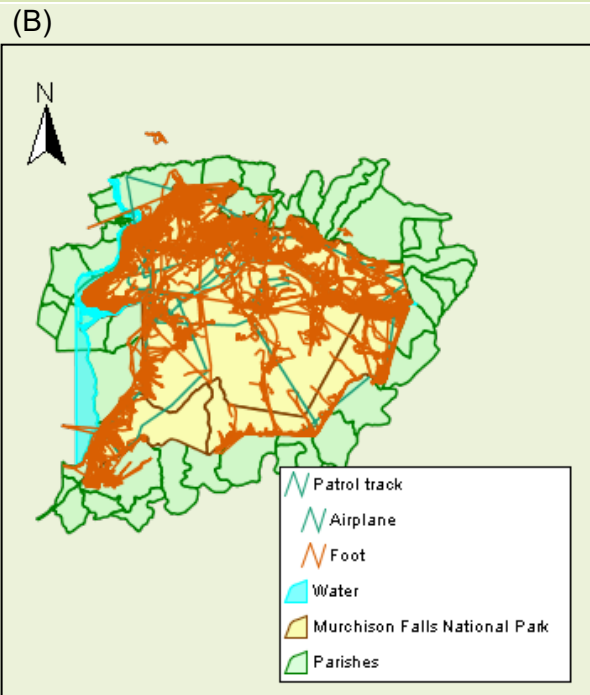
management in the last two years that enabled them to deploy patrol teams more effectively and efficiently. Figure 4 below serves to illustrate this using data from MFNP for two periods: March 2014 to February 2016 and March 2016 to February 2018. It was not possible to analyse snares/traps per km walked for QENP due to a mix-up between foot and aerial patrol data. However, maps produced from SMART indicate that targeted patrols contributed to a reduction in the distance walked, implying greater efficiency. SMART analysis reports for both QENP and MFNP are attached for more information.

One of the challenges met under this output was inability to capture human wildlife conflict data into SMART database due to the fact that community conservation rangers did not have Smartphones for data collection and have never been trained in data collection. Unfortunately,

Figure 4: Maps showing patrol effort (maps A and B) and intensity (maps C and D) in Murchison Falls National Park in the periods of 2014-2015 (maps A and C) and 2016-2017 (maps B and D)

there was no budget in this project for this. However, this gap is being addressed through

different IWT funded project (IWT036) being implemented in partnership with International Institute for Environment and Development (IIED).

Information from SMART has been used to plan patrols meant to remove snares and other traps from the park in order to safeguard wildlife. The chart in Figure 5 shows the trend in number of suspects arrested in the park during patrols from the year 2014 to Feb 2018 while the maps of Queen Elizabeth National Park in Figure 6 shows areas where snares have been found over the years.

Photo: 1 Mustafa Nsubuga of WCS (holding paper) conducting SMART refresher training for UWA rangers at one of the outposts in Queen Elizabeth National Park

3.2   Outcome

As demonstrated in the outputs above, this project has greatly contributed to UWA's ability to disrupt local and international wildlife crime networks around the country. Reports by NRCN indicate that a total of 44 wildlife crime offenders arrested with NRCN's involvement were taken to court between October 2016 and March 2017. Of these, over 26 cases including at least 3 believed to be middlemen (based on the amount of contraband wildlife products had on them) were successfully prosecuted and the criminals sentenced. See project report for wildlife crime law enforcement in Uganda by NRCN attached for details.

One of the indicators to measure outcomes of this project was to see that successful prosecutions of middlemen with jail sentences increase from 21 people/ year to more than 40/year and the means of verification of this indicator included data from the UWA offender's database. However, due to inefficiencies and delay by UWA to supervise data entry into the database, the available information is not sufficient to authoritatively verify this indicator. Noticing this, we facilitated a field monitoring visit to check on the status of data entry. The resultant report (attached) indicated that data was not being entered at many stations due to poor supervision. Recommendations were made for improvement.

This project has enhanced capacity of UWA to monitor elephant poaching in the country and the use of SMART for monitoring and research been embraced. It is worth noting that while use of SMART has been promoted across the protected areas, MFNP and QENP have developed greater capacity due to the support from this project. Since QENP is one of the parks at

greatest risk of elephant poaching due to its proximity to the politically unstable parts of the Democratic Republic of Congo, these results could reflect a general decline in the level of poaching in the country.
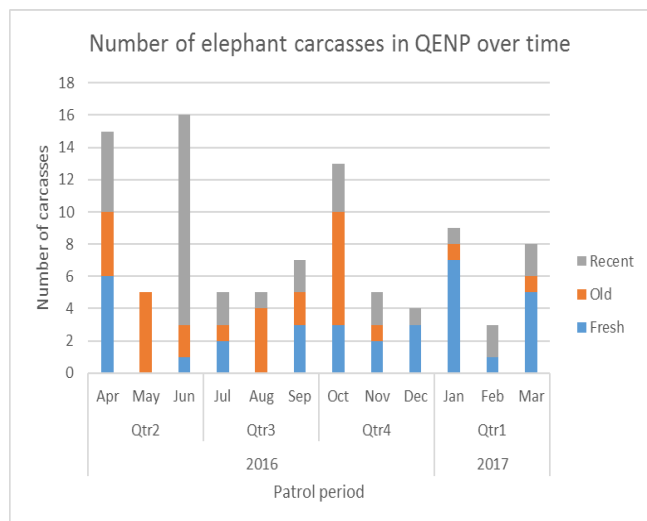

Figure 5: Trend in number of elephant carcasses encountered during ranger patrols in Queen Elizabeth National Park between April 2016 and March 2017 extracted from SMART data
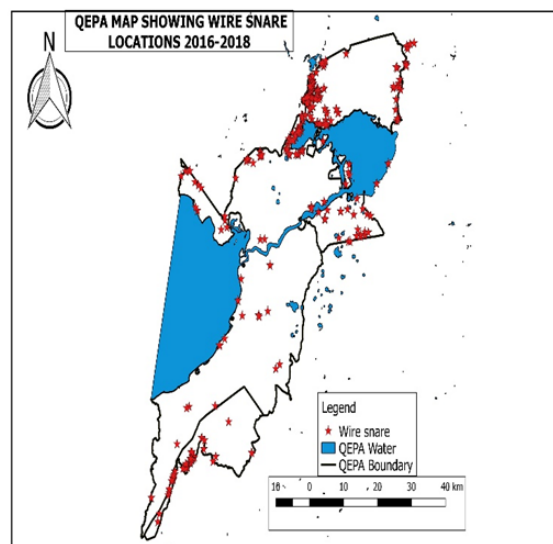

Figure 6: Map of Queen Elizabeth National Park shows areas where snares have been found over the years

The indicators provided in the proposal of this document remained relevant and adequate to measure the outcome of this project. Due to management challenges within UWA (probably due to the changes that took place the top level), we have been unable to access data on elephant killing across the country but data from Queen Elizabeth National Park alone indicates that elephant the number of elephants killed declined from 19 in each of the years 2014 and 2015 to 11 in the year 2017. Only 3 elephant killings have been recorded in 2018.

3.3 Impact: achievement of positive impact on illegal wildlife trade and poverty alleviation

Project impact statement: Through effective law enforcement, Uganda disrupts regional wildlife trafficking routes and protects wildlife populations and the people who depend on them, while reducing insecurity and improving governance in the country.

This project contributed to the achievement of the impact above though improving intelligence in the wildlife sector to crack down on middlemen and wildlife traffickers within the country as well as ensuring that those arrested pay the full penalties handed to them. The investigation into the 1300kg ivory seizure in February2017 is one of the classic examples of this project's contribution to the impact. This investigation exposed rackets of wildlife traffickers led to the arrest of other traffickers who were not directly associated with the February seizure. Due to the confidentiality of this report it is not attached here but can be availed to IWT upon request.

The project used different avenues to stamp out bribery from the courts and the police which has been major hindrance to prosecution of suspects. We managed to facilitate the government to initiate an interagency coordination forum that will continue to deal with illegal wildlife trade issues even beyond the life of this project.

The project contributed to human development and wellbeing in a number of ways: a) by creating opportunities for community members around protected areas to earn income upon recruitment as informers (sources of intelligence), b) protecting Uganda's iconic species that support the country's tourism industry on which many local people depend, and c) improving the overall security situation around the parks and elsewhere which would otherwise be jeopardised by increased cases of armed poaching.

4.   Monitoring of assumptions

Please substantiate comments with evidence.

Assumption 1: NRCN Uganda is allowed access to check on prisoners serving wildlife-related jail sentences and payment of fines in judicial courts.

Comment: This assumption largely remained true throughout the project. NRCN was allowed to monitor prisoners in the different prison facilities around the country to ensure that they pay the full penalties handed to them except Luzira Maximum Prison where NRCN was denied access in 2017. The table showing a record of jail visits conducted in the course of this project is given in NRCN's annual report attached.

Assumption 2: Police, Judiciary, army and customs are willing to work with UWA to tackle wildlife crime. We believe this will remain true, as provisional meetings with them indicate willingness.

Comment: This assumption held true throughout the project period and was monitored through feedback from meetings. Two cases of government's good will towards collaboration can be cited: 1) the joint operation that led to a seizure of 1.3 tons of ivory and arrest of 3 traffickers (see clipped article below from New Vision[4]) and 2) the resolutions of the Inter-Ministerial meeting to combat illegal wildlife trade in Uganda (report attached).

Assumption 3: UWA rangers work hard to increase the patrol coverage dictated by the new patrol methods to make patrolling more effective.

Comment: With the improved SMART-based law enforcement monitoring and patrol planning approaches introduced to the parks by WCS, patrol coverage and efficiency in the protected areas has improved significantly as seen in Figure 4 above.

5. Project support to the IWT Challenge Fund Objectives and commitments under the London Declaration and Kasane Statement

This project contributed to Objective 2 ("strengthening law enforcement and the role of the criminal justice system") of the IWT Challenge Fund. By engaging the judiciary and other law enforcement agencies in various activities to better address wildlife crime, working towards stamping out ivory trafficking and killing of elephants through improved intelligence and prosecution, the project contributes to the Kasene statement and London declaration.

6.   Impact on species in focus

The project focused on securing African elephants by addressing the threats to their dwindling populations in Uganda and elsewhere in Africa. Achievements of the project as indicated in this report show positive signs not only within Uganda but also internationally. Targeting traffickers and middlemen involved in wildlife crime potentially reduces the number of poaching incidents for elephants, popular bushmeat species, and other species sold illegally in markets beyond the borders of the nation.

In turn, this reduces markets for poachers at the local level, lessening the potential for outbreaks of disease such as Ebola and Marburgs virus, both of which have killed people in the recent past in Uganda. Wildlife trade has also been linked to other illegal trade such as the narcotics and arms trade, and the groups that deal in one product often deal in the others. We believe that the targeting of middlemen cripples these other operations and has knock-on effects on the availability of drugs and arms in the cities and towns of Uganda.

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[4] http://www.newvision.co.ug/new_vision/news/1446682/ugandan-authorities-seize-tonne-ivory

7. Project support to poverty alleviation

The primary beneficiaries of this project are the people of Uganda in general, as well as local communities adjacent to the parks and tourism operators, hoteliers and restaurants that rely on tourism to support their livelihoods.

Through efforts to improve governance, law enforcement and security at local, national, and regional levels, the project created opportunities for UWA to recruit and employ intelligence agents from local communities around their 24 PAs to ensure security and law enforcement there. In addition, improving coordination between the WCU, police, judiciary and UPDF enhances rule of law around the protected areas and the country at large.

By reducing the ability of middlemen to bribe their way out of prosecution, this project also promoted a more just, less corrupt political atmosphere that benefits the general public. Removal of criminal networks driving illegal wildlife trade has additional benefits to local communities, including a reduction in other criminal activities (e.g., illegal logging), which are often driven by the same criminal networks and have significant impacts on local people.

These improvements in security and law enforcement at a national level have also contributed to better regional security. With the creation of the National Wildlife Crime Coordination Task Force, better coordination of activities across borders throughout the East Africa Community is expected, creating regional sharing of information and improved regional governance and rule of law. Measurable improvements in the coordination of Uganda's agencies will also serve as a model for neighbouring countries grappling with similar issues.

Poaching and illegal trafficking of ivory, hippo teeth, pangolin scales, and other biodiversity affect not only wildlife but entire ecosystems, effectively depriving local communities of their livelihoods. Tourism is the biggest source of foreign currency for Uganda, contributing 7.3% to the national GDP and supporting 6.3% of people in direct and indirect employment (equivalent to 605,500 jobs)[5]. By protecting charismatic species that attract tourists, this project contributes to the sustenance of this important sector hence creating opportunities for benefit sharing with people living around protected areas.

8. Consideration of gender equality issues

In implementing the project, efforts are made to ensure that women are represented in the training and other project activities. However, due to the nature of work and proportion of women in the targeted categories of people (especially law enforcement roles), achieving gender balance was a challenge. WCS endeavoured to ensure that women are considered for selection by agencies participating in project activities but actual representation depends on the competencies, skills and experiences needed to perform the task at hand. Eleven women representing 22% of trainees were included in the intelligence training discussed under output 3.1.

9. Lessons learnt

In general, partnerships in project implementation enable capacities and skills to be leveraged for better results. However, close monitoring of implementation of partner activities is critical as relying entirely on partners to deliver certain outputs and to provide means of verifying project indicators is problematic sometimes. We noticed that this is due to several factors including lack of commitment, limited capacity and institutional weaknesses. This was one of the major challenges we faced in measuring project outputs and outcomes. As a recommendation, we think that the future projects should use indicators that are within the control of the lead implementer and adequate resources (both financial and human resource) should be allocated to monitoring and evaluation.

The other lesson we have learned is that it is difficult to predict the timeframe required to develop and adapt new technologies, which may lead to failure to meet set targets within a

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[5] Source: World travel and Tourism Council (2018), Travel and Tourism Economic Impact 2018 Uganda, London, United Kindgom

short timeframe. Such was the case with the development of the SMART analysis software that was only finalised toward the end of the project due to serious programming difficulties. Where such activities are included in a project, we recommend that adequate time and flexibility be taken into consideration.

A number of lessons were learned through implementation of SMART and these documented by the partners as below:

1. Introduction of new systems like SMART needs to be done gradually to allow enough time for adoption by the users to ensure that data collected is accurate and consistent. At the introduction of SMART in these two parks, the existing system (MIST) that used GPS and paper forms was instantly stopped. However, slow adopters continued collecting data using the old system, which data was not entered into the system and was consequently lost.
2. Keeping a record of historical data in paramount and useful for predicting areas prone to illegal activities. Capturing and analysing such data in SMART helps in patrol planning and deployment.
3. Simplifying the language used in data models enhances accuracy of data collection. Not all rangers are conversant with scientific names and the terminology of ecology. For this reason, the previous SMART data model that had scientific species names made it difficult for rangers to identify them. However, upon simplification by introducing common names, an improvement in data collection was registered.
4. Deploying rangers, it is always important to remind them to check the dates on their Smartphones before starting a patrol to avoid data loss. Using wrong dates often results in loss of data as the data filters fail to pick up the correct entries. This could lead to inaccurate analyses.
5. To minimise retraining and mistakes in data collection, it is important to adopt uniform standards of equipment for data collection as well as versions of SMART that are used across the protected area network. This calls for centralised management and decision making.

On the side of intelligence and prosecution, some of the registered lessons are as follows:

1. All wildlife cases need to be followed up from the time of arrest to prosecution processes and conviction. This is one of the ways to ensure that that the efforts invested in cracking down on wildlife crime pay off.
2. It is important for the law enforcement team (whether UWA or police) to collaborate with the investigation and prosecution teams when dealing with wildlife cases. There needs to be a well-coordinated mechanism of sharing information in order to maximise opportunities to hold offenders accountable for their actions. Cases where one team side-lines the other often don't end successfully. However, identifying the right staff within the various institutions developing and developing an MoU acceptable to all law enforcement agencies is not straightforward due to mistrust and entrenched corruption among Uganda's law enforcement agencies.
3. In order to create public awareness and to demonstrate the gravity and consequences of wildlife crime, all conviction stories reported in the media need to include the history of the cases developed from the time of arrest though prosecution to sentencing. This enables any irregularities in the case to be exposed but also compels those handling the cases to exercise prudence. The nature and magnitude of the sentence or fine also needs to be thoroughly reported to act as a warning to the intending offenders.

To address the challenges of not paying fines, we undertaking a series of measures and checks to improve the payment and enforcement of financial penalties imposed by the courts in wildlife crime cases. These include;

a) Having enough information on the value of the killed wildlife so that magistrates can set an appropriate fine
b) Encouraging immediate payment, including providing facilities for the offender to pay before leaving the court building, and

c) Closely monitoring payment of fines by offenders, including taking a more active role in pursuing fines

9.1   Monitoring and evaluation

This project involved multiple partners including government law enforcement agencies and a national NGOs. Therefore, one of the ways employed to monitor its performance was through holding coordination, planning, and monitoring meetings with the partners. Through these meetings, partners were guided and reminded of their commitments. Partners were also tasked to report progress on a quarterly or semi-annual basis. Tracking of enforcement operations and prosecutions was done through the quarterly reporting at these coordination meetings. While the offenders' database is one of the tools the project intended to use for more detailed analysis of the impacts of individual arrests on repeat offences and the deterrence effects of punishments, it was not adequately populated with data to enable this to happen yet it was hoped that this would minimise project monitoring costs.

A monitoring and evaluation workshop involving all partners was held after the first year of implementation with the aim of reviewing the project logical framework and assess progress towards achieving the set targets as well as share lessons learned from the first year of implementation. All implementing partners reviewed their respective indicators and reported progress toward achieving their objectives. Feedback from participants indicated that this meeting was very useful as it helped them re-align their project activities toward achieving desired outputs. The meeting recommended that more of such meetings be organised in the future.

9.2   Actions taken in response to annual report reviews

A number of comments were raised from our annual report and the steps taken to address them are highlighted below.

Highlighting partner involvement and communication: Apart from UWA, our partners had distinct responsibilities, some of whom received sub awards to execute particular deliverables. Following this advice, a monitoring and evaluation meeting involving project partners was organised partly to share information and exchange ideas. Feedback on the annual report was also communicated to the partners in this meeting. Much of the communication with partners involved face-to-face meetings, phone calls and emails.

Substantiating reporting with evidence: In the final year of the project, efforts were made to document project activities and to keep evidence of implantation in form of reports and attendance sheets among others. Some of the reports are available for download from our website (https://uganda.wcs.org/Initiatives/IWT-and-CWT.aspx). Reports with confidential information (relating to wildlife crime investigations) though referred to in this report have not been uploaded but can be availed to IWT Challenge Fund upon request.

Change request: Upon engaging government on the respective activity, the change request was withdrawn hence no further action was taken.

Indicator to monitor gender equality and support considerations: We redesigned our meeting attendance sheets in order to capture participation of male and female genders in project activities by number. We had no choice over the staff that UWA selected to participate in trainings as these were chosen based on the positions/responsibilities and duties held.

10.   Other comments on achievements not covered elsewhere

The SMART analysis program will contribute to effective and efficient law enforcement on the ground. SMART itself is now in use in over 700 protected areas globally, and as we roll out the analysis program we anticipate this will add substantial functionality and utility to the software. Improving the efficiency of ranger effort is an important priority for conservation, as agreed in the project application. All these impacts are still to come, as the program starts to be used

11. Sustainability and legacy

Combating wildlife crime is one of the priorities of the Uganda government. The Ministry of Wildlife Tourism and Antiquities through UWA's board of trustees has mandated UWA to make efforts to improve its capacity to fight wildlife crime. This project came at a point when the WCU had just been established and in need of immense support to be able to execute its mandate. The support offered to the unit though this project has enabled UWA to put in place intelligence infrastructure and systems that will be used for a long time. Using lessons and recommendations from this project, UWA has been able to restructure and streamline the intelligence unit for better performance. UWA now has dedicated and trained staff to deal with intelligence and investigations. Hence, the capacity build to date together with the various operational protocols developed is expected to keep the unit afloat even after this project.

In addition, formation of the government commitment to the formation of the NWCCTF raises IWT and trafficking a notch higher as it has drawn attention of the central government and relevant ministries. This means that the burden of combating IWT will now be practically and realistically be borne by government beyond mere rhetoric. This also facilitates pooling of capacities and expertise for better results.

That said, having supported conservation in Uganda for 60 years, WCS is committed to following up and continuing to **mentor UWA beyond the lifetime of the project. WCS also plans to conduct complementary activities both in** Uganda and the larger region to reinforce work carried out in the project.

12. IWT Challenge Fund Identity

While this project was part of the broader WCS Uganda IWT/CWT programme, it had a distinct goal and objectives. The fund and its purpose were clearly communicated to partners and stakeholders in meetings and IWT Challenge Fund and the UK Government acknowledged as sponsors the project. To enhance this, a project brochure (attached) was produced and distributed to partners with the aim of enhancing visibility of the project. Products (reports, papers, etc.) produced through this project have been uploaded onto the WCS Uganda website and can be accessed via https://uganda.wcs.org/Initiatives/IWT-and-CWT.aspx by the global public. The resources available include the SMART analysis software and user manual which will revolutionize SMART data analysis.

13. OPTIONAL: Outstanding achievements of your project during the (300-400 words maximum). This section may be used for publicity purposes

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

14. Finance and administration

14.1 Project expenditure

Project spend (indicative) since last annual report	2017/18 Grant (£)	2017/18 Total actual IWT Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring and Evaluation				
Others (see below)				
Audit costs				
TOTAL				

Staff employed (Name and position)	Cost (£)
TOTAL	

14.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
Elephant Crisis Fund (ECF)	
Stop Ivory (SI)	
United States Fish and Wildlife Services (USFWS)	
TOTAL	

14.3 Value for Money

This project provided very good value for money. The legacy created, particularly in the development of the SMART plug-in that is going to be used by not only UWA but also over SMART users in over 700 protected areas around the globe is invaluable. This development has made ranger patrols much easier and more efficient in addition to enabling managers access quick analyses for management purposes. Further, the capacity to carry out intelligence and establish intelligence networks within UWA is

unprecedented. This project has provided unique forensic equipment such as Cellebrite that enables UWA to extract hidden information from mobile phones of criminals hence providing good leads. The good relationship with our partners helped us get quality services at reasonable costs.

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

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Through effective law enforcement, Uganda disrupts regional wildlife trafficking routes and protects wildlife populations and the people who depend on them, while reducing insecurity and improving governance in the country.			
Outcome: The Uganda Wildlife Authority (UWA) disrupts operations of local and regional wildlife crime networks through effective use of intelligence by its Wildlife Crime Unit, increasing inter-agency collaboration and accountability, and strengthening law enforcement at multiple levels. By doing so, governance in the country is improved and wildlife populations are protected.	By the end of the project, successful prosecutions of middlemen with jail sentences increase from 21 people/year to more than 40/year. By the end of the project, more than 75% of convicted wildlife crime offenders pay their full fines or prison terms and cannot bribe their way out. By the end of the two-year project, poaching of elephants in Uganda drops from 60-80/year to less than 25/year.	Reports of arrests made by the Wildlife Crime Unit and documented in UWA Offenders database. Natural Resource Conservation Network (NRCN) Uganda reports of monitoring of prosecuted offenders. Reports from SMART of elephant carcasses and poaching incidents.	NRCN Uganda is allowed access to check on prisoners serving wildlife-related jail sentences and payment of fines in judicial courts. Police, Judiciary, army and customs are willing to work with UWA to tackle Wildlife Crime. We believe this will remain true, as provisional meetings with them indicate willingness. UWA rangers work hard to increase the patrol coverage dictated by the new patrol methods to make patrolling more effective.
Output 1: An effective and functioning Wildlife Crime Unit (WCU) collects and analyses intelligence information to increase arrests of middlemen.	1.1 By the end of year two a minimum of 8 UWA staff trained and mentored in intelligence gathering methods, forming an effective Wildlife Crime Unit (WCU). Baseline = 0 staff trained to level required to manage data and analyse information. 1.2 By the end of year 1, at least 28 UWA law enforcement and prosecutions staff at PA level receive	1.1 Reports of training workshops and mentoring visits every quarter. 1.2 Reports of training of UWA law enforcement staff and prosecutors at Protected Areas. 1.3 Written protocol for UWA use internally. 1.4 Results of prosecutions in UWA's	Government of Uganda remains committed to tackling the wildlife trade and supports inter-agency collaboration.

		training in recruitment and management of informers. Baseline = some management of informers by staff at PA sites but with little to no training in how to do this. 1.3 By the end of year 1, a protocol for sharing information between local law enforcement and WCU headquarters has been established and implemented in all 24 Protected Areas in the country. Baseline = no protocol exists at present; there is some sharing of information but only through personal contacts. 1.4 By 2018, UWA prosecutors are using WCU analyses in at least 50% of cases prosecuted by UWA Headquarters. Baseline = fewer than 10% of cases from UWA HQ were used in WCU analyses in 2015. □	Offenders database.□	
Output 2: Through the work of NRCN Uganda, prosecuted offenders are held accountable for wildlife crimes committed.	2.1 During year 1 three NRCN prosecutors receive training in media campaigns and a media campaign plan is developed. Baseline = no training in media campaigns for NRCN staff to date. 2.2 During the second year of the project, NRCN Uganda publishes at least 6 newspaper/television features highlighting its activities to prosecute wildlife crime offenders. Baseline = 0 newsletters produced by NRCN (although Eagle Network produces summaries for Uganda) and one TV	2.1 Report of training in media campaigning. 2.2 Newspaper articles and video clips of wildlife crime publicity. 2.3 Annual report on the number of people monitored and percentage meeting their fines/prison sentences.	NRCN is allowed to operate freely and can support UWA as an independent NGO.

	program aired news by them in 2015. 2.3 By the end of the second year of this project, at least 75% of criminals arrested and prosecuted are monitored to ensure they pay full penalties, compared to about 5% monitored at present. ☐		
Output 3: UWA, police, judiciary, URA, and Uganda military share information and collaborate in law enforcement to improve anti-trafficking efforts through a Wildlife Crime Coordination Task Force (WCCTF).	3.1 Wildlife Crime Coordination Task Force (WCCTF) established within first six months of project. Baseline = no task force currently exists. 3.2 By the end of the second year, WCCTF information sharing leads to arrests and prosecutions, increasing the number of wildlife crime prosecutions from such collaboration by 200%. Baseline = minimal sharing of information. 5 prosecutions for poaching per year currently from collaboration with Police. 3.3 By the second year of the project, judiciary increases fines for wildlife crime by 100%, and prison terms by at least 50% as a result of a better understanding of the importance of these crimes and improved monitoring of judiciary activities. Baseline from Offenders database - average fine for poaching is 5,000 UG shillings (about £1); average prison term is 185 days for poaching. ☐	3.1 Report of meeting to establish WCCTF and cuttings of press coverage in newspapers. 3.2 Annual report of arrests and prosecutions made by UWA detailing the number that benefited from collaborations with other institutions in WCCTF. 3.3 A report assessing the average fine/prison term for different classes of offence comparing the current situation with the first and second year of the project. ☐	

| **Output 4:** Local law enforcement officers in protected areas use new capabilities in SMART to more efficiently and effectively conduct ranger patrols. | 4.1 Method to effectively deploy rangers based on new analyses of SMART data developed and tested in Queen Elizabeth and Murchison Falls National Parks during first year of project. Baseline = pilot testing at one site in Queen Elizabeth Park.

4.2 By end of year two, SMART plug-in analysis toolkit developed and made freely available to enable any site to deploy rangers effectively (using method referenced in indicator 1). Baseline = no toolkit exists

4.3 In year 2, SMART data from Queen Elizabeth NP and Murchison Falls NP show a 50% increase in detections of snares and poaching incidences compared to 2012-2015 detections. Baseline from 2015 SMART data = a) QENP: 1.1 snares per 100 km walked; 1.6 hunting signs per 100 km walked; b) MFNP: 1.6 snares per 100 km walked; 2.5 hunting signs per 100 km walked

4.4 By end of Year 2, UWA is compiling and analysing data in SMART from Community Conservation Rangers to identify human-wildlife conflict hotspots and working to target revenue sharing funds to help these communities. Baseline = no such analyses made presently. ☐ | 4.1 Reports of park-wide testing of ranger deployment based on predicted maps of high illegal activities for both Queen Elizabeth and Murchison Falls Parks.

4.2 Smart plug-in working effectively and available for use at other sites. Reports of analyses made with smart plug-in at other sites in Uganda.

4.3 Reports from SMART of illegal activity detections, comparing the detection per unit effort (patrol day/km walked by patrols) of different illegal activities from 2013-2015 with 2016-2018 after patrol re-deployment is affected.

4.4 Report of UWA human-wildlife conflicts (HWC) from SMART and number of Revenue sharing projects targeting reduction of HWC. | Government Resources such as rangers salaries continue to be available to support implementation of ranger patrol strategies. ☐ |

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)

Output 1

Activity 1.1   Train UWA staff quarterly for two years in intelligence gathering and data analysis, with continual mentoring between training courses.

Activity 1.2   Train UWA Law Enforcement Wardens and Intelligence Officers at PA level in the recruitment, management and handling of informers as well as in packaging and transmitting intelligence information for WCU at UWA HQ.

Activity 1.3   Establish intelligence networks at park level to feed information to the WCU.

Output 2

Activity 2.1   Train NRCN in publicity campaigns, supported with website development and materials development to advertise their activities.

Activity 2.2   Train NRCN in proposal development, budget management and reporting.

Activity 2.3   Provide NRCN with resources to prosecute and follow up convicted offenders.

Output 3

Activity 3.1   Conduct a meeting to establish the WCCTF, bringing together individuals from UWA, police, judiciary, customs, URA, military and immigrations.

Activity 3.2   Facilitate quarterly meetings and joint operations of WCCTF for its first two years.

Activity 3.3   Provide materials to law enforcement agencies outside UWA structures on value of wildlife to Uganda and importance of halting wildlife crime.

Output 4

Activity 4.1   Test UoY's new innovative method of deploying rangers on patrol in a randomized and unpredictable way at two sites, Murchison Falls NP and Queen Elizabeth NP, and use lessons learned to improve and finalise approach/tool.

Activity 4.2   Develop SMART analysis toolkit Plug-in linked to smartphone package using the new finalised ranger deployment method.

Activity 4.3   Formally roll out ranger deployment SMART analyiss toolkit Plug-in across Uganda's protected areas with high levels of elephant poaching (Queen Elizabeth, Murchison Falls, Kidepo Valley and Kibale National Parks).

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

Project summary	Measurable Indicators	Progress and Achievements
Impact Through effective law enforcement, Uganda disrupts regional wildlife trafficking routes and protects wildlife populations and the people who depend on them, while reducing insecurity and improving governance in the country.		The project has improved intelligence in the wildlife sector and has built capacity of UWA to crack down on middlemen and wildlife traffickers and ensure that they pay their penalties. The February 2017 ivory seizure investigation is given as an example to illustrate this capacity (report confidential; can be availed to IWT on request). Government was facilitated to initiate an interagency taskforce comprised of security and law enforcement agencies to deal with trafficking beyond this project. The project contributed to human development and wellbeing by creating income opportunities for communities (upon recruitment as informers), safeguarded species that support the country's tourism industry on which many local people depend, and improved overall security situation around the parks
Outcome The Uganda Wildlife Authority (UWA) disrupts operations of local and regional wildlife crime networks through effective use of intelligence by its SLEU (formerly Wildlife Crime Unit), increasing inter-agency collaboration and accountability, and strengthening law enforcement at multiple levels. By doing so, governance in the country is improved and wildlife populations are protected.	By the end of the project, successful prosecutions of middlemen with jail sentences increase from 21 people/ year to more than 40/year. By the end of the project, more than 75% of convicted wildlife crime offenders pay their full fines or prison terms and cannot bribe their way out. By the end of the two-year project, poaching of elephants in Uganda drops from 60-80/year to less than 25/year.	Indicator 1 was not measured due to insufficient data captured in the online wildlife offender's database by UWA as a result of poor supervision. WCS had no control over this. A total of 44 wildlife crime offenders arrested with NRCN's involvement were taken to court between October 2016 and March 2017. Of these, over 26 cases including at least 3 believed to be middlemen (based on the amount of contraband wildlife products had on them) were successfully prosecuted and the criminals sentenced. 100% of the cases monitored have paid their full fines, served or are serving their prison terms. For the same reason above, wildlife offenders' data would not be used to verify this indicator. Data from Queen Elizabeth National Park alone indicates

		that elephant the number of elephants killed declined from 19 in each of the years 2014 and 2015 to 11 in the year 2017. Only 3 elephants killings have been recorded in 2018.
Output 1 An effective and functioning SLEU **(WCU) collects and analyses intelligence information to**	1.1 By the end of year two a minimum of 8 UWA staff trained and mentored in intelligence gathering methods, forming an effective Wildlife Crime Unit (WCU). Baseline = 0 staff trained to level required to manage data and analyse information.	1.1 Four senior staff at UWA were trained and mentored in intelligence methods to a level where they are able to carry out independent intelligence operations. While the target was to train a minimum of 8 headquarter staff, UWA was only able to recruit four to the WCU hence the smaller number.
	1.2 By the end of year 1, at least 28 UWA law enforcement and prosecutions staff at PA level receive training in recruitment and management of informers. Baseline = some management of informers by staff at PA sites but with little to no training in how to do this.	1.2 49 UWA rangers were trained in Human Intelligence (HUMINT), among whom were 11 women, surpassing the targeted number of 28. These rangers have been equipped with sophisticated intelligence methods and techniques and are now better positioned to recruit and manage informers.
	1.3 By the end of year 1, a protocol for sharing information between local law enforcement and WCU headquarters has been established and implemented in all 24 Protected Areas in the country. Baseline = no protocol exists at present; there is some sharing of information but only through personal contacts.	1.3 The protocol for cooperation with District law authorities on intelligence matters as developed. Additional systemic protocols were also developed including I2 and Sentinel software protocols, protocols for use of Cellebrite UFED Touch[6] purchased for UWA under this project, and protocol Further, standard operating procedures on how to deal with incoming information
	1.4 By 2018, UWA prosecutors are using WCU analyses in at least 50% of cases prosecuted by UWA Headquarters. Baseline = fewer than 10% of cases from UWA HQ were used in WCU analyses in 2015. ☐	1.4 there is sufficient data on court cases to verify this indicator. However, the existing data shows a 159% increase in intelligence led arrests in 2017 compared to the period before the project (2015), which could indicate the contribution of intelligence to prosecution.
Activity 1.1 Train UWA staff quarterly for two years in intelligence gathering and data analysis, with continual mentoring between training courses.		Mentoring has been done and will continue through the first quarter of the second year of implementation. Priority for the next quarter will be to make the intelligence units self-sufficient to execute operations on their own

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[6] This is a forensic tool that extracts data out of cellular devices, tablets, SIM cards and memory cards

Activity 1.2 Train UWA Law Enforcement Wardens and Intelligence Officers at PA level in the recruitment, management and handling of informers as well as in packaging and transmitting intelligence information for WCU at UWA HQ		Training has been done for 49 staff and the Maisha expert placed in UWA continued mentoring the trainees through 2017.
Activity 1.3 Establish intelligence networks at park level to feed information to the WCU.		This was accomplished. Each protected area now has an intelligence officer trained to recruit and manage informers
Output 2. : Through the work of NRCN Uganda, prosecuted offenders are held accountable for wildlife crimes committed.	2.1 During year 1 three NRCN prosecutors receive training in media campaigns and a media campaign plan is developed. Baseline = no training in media campaigns for NRCN staff to date. 2.2 During the second year of the project, NRCN Uganda publishes at least 6 newspaper/television features highlighting its activities to prosecute wildlife crime offenders. Baseline = 0 newsletters produced by NRCN (although Eagle Network produces summaries for Uganda) and one TV program aired news by them in 2015. 2.3 By the end of the second year of this project, at least 75% of criminals arrested and prosecuted are monitored to ensure they pay full penalties, compared to about 5% monitored at present. □	2.1 NRCN recruited a media specialist who worked with NRCN staff to improve media engagements and led the process of developing a media strategy aimed at creating awareness and sensitisation on IWT matters. The strategy was implemented with dissemination of IWT messages targeting upcountry audiences in the first year in order to sensitise local communities on the dangers and consequences of IWT. 2.2 This output has been achieved. NRCN has featured in 27, 26, 8 and 15 wildlife crime stories published via the internet, print media, radio and television respectively. 2.3 The project has documented 44 suspects arrested from 25 different locations and 16 cases had been successfully prosecuted in court. All the 16 sentenced or fined paid their full fines or are serving their sentences. Wildlife offenders held at Luzira Government prison (the biggest prison in the country) make up 44.5% of the total convicts who received custodial sentences in the year 2017. However, NRCN was denied access to these citing security reasons.
Activity 2.1 Train NRCN in publicity campaigns, supported with website development and materials development to advertise their activities.		NRCN hired media specialist to build capacity internally. Website (www.nrcn.org) was developed and a media campaign run using electronic, print and social media.
Activity 2.2 Train NRCN in proposal development, budget management and reporting.		Three NRCN senior staff were trained in proposal development, budget management and reporting by Andy Plumptre of WCS.
Activity 2.3 Provide NRCN with resources to prosecute and follow up convicted offenders.		This was done though a sub grant to NRCN. A total of 16 cases that were successfully prosecuted in court were monitored and all served (or are serving) their full sentences. Access to wildlife offenders held at Luzira

		Government prison was denied. These make up 44.5% of the total convicts who received custodial sentences in the year 2017.
Output 3. UWA, police, judiciary, URA, and Uganda military share information and collaborate in law enforcement to improve anti-trafficking efforts through a Wildlife Crime Coordination Task Force (WCCTF).	3.1 Wildlife Crime Coordination Task Force (WCCTF) established within first six months of project. Baseline = no task force currently exists. 3.2 By the end of the second year, WCCTF information sharing leads to arrests and prosecutions, increasing the number of wildlife crime prosecutions from such collaboration by 200%. Baseline = minimal sharing of information. 5 prosecutions for poaching per year currently from collaboration with Police. 3.3 By the second year of the project, judiciary increases fines for wildlife crime by 100%, and prison terms by at least 50% as a result of a better understanding of the importance of these crimes and improved monitoring of judiciary activities. Baseline from Offenders database - average fine for poaching is 5,000 UG shillings (about £1); average prison term is 185 days for poaching.	3.1 Implementation of this activity delayed due to slow response from government. After several meetings and engagements, an inter-ministerial conference was on combating wildlife trafficking was finally held in April 2018. The meeting resolved to establish the taskforce and member institutions identified. Nominations of technical officers to represent institutions is ongoing. 3.2 No information sharing on criminal activity has happened yet since the WCCTF is not yet fully active. 3.3 Same as 3.2 above
Activity 3.1 Conduct a meeting to establish the WCCTF, bringing together individuals from UWA, police, judiciary, customs, URA, military and immigrations.		First meeting with senior staff for selected law enforcement agencies was conducted on 13 September 2016. An inter-ministerial meeting was conducted on 26th of April 2018 and unanimously adopted the idea of creating the NWCCTF.
Activity 3.2 Facilitate quarterly meetings and joint operations of WCCTF for its first two years.		Nominations for taskforce members from different government institutions is still ongoing and therefore no taskforce meetings have been held yet. We are soliciting for funds to continue supporting this initiative.
Activity 3.3 Provide materials to law enforcement agencies outside UWA structures on value of wildlife to Uganda and importance of halting wildlife crime.		Four reports shared and presentations to government stakeholders on the value of wildlife to Uganda and importance of halting wildlife crime were made in two separate workshops as well as in the inter-ministerial conference

Output 4: Local law enforcement officers in protected areas use new capabilities in SMART to more efficiently and effectively conduct ranger patrols.	4.1 Method to effectively deploy rangers based on new analyses of SMART data developed and tested in Queen Elizabeth and Murchison Falls National Parks during first year of project. Baseline = pilot testing at one site in Queen Elizabeth Park. 4.2 By end of year two, SMART plug-in analysis toolkit developed and made freely available to enable any site to deploy rangers effectively (using method referenced in indicator 1). Baseline = no toolkit exists 4.3 In year 2, SMART data from Queen Elizabeth NP and Murchison Falls NP show a 50% increase in detections of snares and poaching incidences compared to 2012-2015 detections. Baseline from 2015 SMART data = a) QENP: 1.1 snares per 100 km walked; 1.6 hunting signs per 100 km walked; b) MFNP: 1.6 snares per 100 km walked; 2.5 hunting signs per 100 km walked 4.4 By end of Year 2, UWA is compiling and analysing data in SMART from Community Conservation Rangers to identify human-wildlife conflict hotspots and working to target revenue sharing funds to help these communities. Baseline = no such analyses made presently. ☐	4.1 New data collection and patrol approaches introduced by WCS have been well received and implemented. Reports indicate that the method is able to effectively predict areas with high probability of illegal activities and is now being used to deploy rangers. 4.2 The SMART plug-in was developed to facilitate SMART data analysis though completion was delayed due to technical challenges. Links for free download of the software and user manual are provided in this report. 4.3 SMART data from MFNP shows that illegal activity detection represented by a combination of snares and traps[7] increased from an average of 2.3 snares/traps per 100km walked in 2014-2015 to 5.8 snares per 100 km walked in 2016-2017, representing an increase of 61% detection. It was not possible to analyse snares/traps per km walked for QENP due to a mix-up between foot and aerial patrol data. However, maps produced from SMART indicate that targeted patrols contributed to a reduction in the distance walked, implying greater efficiency. 4.4 community conservation rangers did not have Smartphones for data collection and have never been trained in data collection using SMART and here was no budget in this project for this. However, HWC is now being collected in MFNP using Open Data Kit (ODK) through different IWT funded project (IWT036) being implemented in partnership with International Institute for Environment and Development (IIED). No analysis has been done yet. WCS also secured funding for Smartphones to facilitate HWC data collection around QENP.
Activity 4.1 Test UoY's new innovative method of deploying rangers on patrol in a randomized and unpredictable way at two sites, Murchison Falls NP and Queen Elizabeth NP, and use lessons learned to improve and finalise approach/tool.		4.1 We tested the approach made by University of York to assess whether reorienting ranger patrols to hotspot areas could increase the detection of illegal activities. Ranger deployment was tested at 27 sites within 5 km of a ranger patrol post in QENP. Training in the methods was done and

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[7] We used snares and traps here because UWA snare data could not be isolated in the MFNP database

	deployment of rangers started in November 2016 and continued up to the end of April 2017 to make the test.
Activity 4.2 Develop SMART analysis toolkit Plug-in linked to smartphone package using the new finalised ranger deployment method.	Development of the plug-in for SMART has been subcontracted to University of York. Due to incompatibility/programming challenges, a standalone software rather than a SMART plug-in was developed
Activity 4.3 Formally roll out ranger deployment SMART analyiss toolkit Plug-in across Uganda's protected areas with high levels of elephant poaching (Queen Elizabeth, Murchison Falls, Kidepo Valley and Kibale National Parks).	The software and user manual are freely available for download via links provided above.

Annex 3 IWT Contacts

To assist us with future evaluation work and feedback on your report, please provide details for the main project contacts below. Please add new sections to the table if you are able to provide contact information for more people than there are sections below.

Ref No	IWT09
Project Title	An integrated, multi-scale approach to combating wildlife trafficking in Uganda
Project Leader Details	
Name	Dr Simon Nampindo
Role within IWT Project	WCS's Uganda Program, led by Simon Nampindo, was responsible for overall project management, collaboration and communication among partners, financial and technical reporting, and monitoring and evaluation.
Address	
Phone	
Fax/Skype	
Email	
Partner 1	
Name	Charles Tumwesigye
Organisation	Uganda Wildlife Authority (UWA)
Role within IWT Project	As the primary agency responsible for combating illegal wildlife trade in Uganda, was the main recipient of capacity and support. UWA was responsible implementing new technologies and methods as well as managing rangers in protected areas and the Entebbe airport. UWA was therefore involved in all protected area level enforcement and intelligence gathering activities.
Address	
Fax/Skype	
Email	
Partner 2	
Name	Vincent Opyene
Organisation	Natural Resource Conservation Network (NRCN)
Role within IWT Project	NRCN supported UWA to prosecute offenders and ensure that they cannot bribe their way out of paying fines or serving a prison term. It also worked with project partners to build capacity of wildlife officers, prosecutors and journalists to effectively report wildlife crime cases.
Address	
Fax/Skype	
Email	
Partner 3	
Name	Colin Baelle

Organisation	Department of Biology, University of York (UoY)
Role within IWT Project	Developed a computer software application that enables more effective and efficient deployment of rangers. The application also enables SMART software users to easily run analyses and use results to inform patrol planning.
Address	
Fax/Skype	
Email	
Partner 4	
Name	Nir Kalron
Organisation	Maisha Consulting Ltd
Role within IWT Project	Maisha provided training to UWA and the Wildlife Crime Unit (WCU) under to improve UWA's and WCU's recruitment, handling and management of a network of informers and their ability to organize intelligence networks and transfer information from the field to the WCU at UWA's headquarters.
Address	
Fax/Skype	
Email	

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

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to IWT-Fund@ltsi.co.uk putting the project number in the subject line.	Yes
Is your report more than 10MB? If so, please discuss with IWT-Fund@ltsi.co.uk about the best way to deliver the report, putting the project number in the subject line.	No
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.	Yes
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.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	