



Breaking the chain: combatting illegal trade in ploughshare tortoises

Final report to DEFRA Illegal Wildlife Trade Challenge Fund

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TRAFFIC
the wildlife trade monitoring network





IWT Challenge Fund Project Information

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Project title	Breaking the chain: combating the illegal trade in ploughshare tortoises
Country(ies)	Madagascar, Indonesia, Thailand, Malaysia
Contract holder institution	Durrell Wildlife Conservation Trust
Partner institution(s)	Madagascar National Parks, TRAFFIC Southeast Asia, Alliance Voahary Gasy, Madagasikara Voakajy, Turtle Conservancy, UK Boarder Force, Wildlife Conservation Society, Government of Madagascar
Total IWT grant value	£215,932
Start/end dates of project	April 2014 – June 2017
Project leader's name	Dr. Andrew Terry
Project Website/Blog/Social Media	
Report author(s) and date	Andrew Terry October 2017

1. Project Summary

The ploughshare tortoise (*Astrocchelys yniphora*) is Critically Endangered, with fewer and fewer individuals remaining in the wild and restricted to a single site in Baly Bay National Park (BBNP). Poaching for the illegal pet trade has become the leading threat to the species, with its rarity and large golden shell making it highly desirable for reptile enthusiasts. Local villagers take animals from the wild, passing them onto smugglers who then smuggle them to Southeast Asia where they are either sold in markets or passed onto recipients in Asia, Europe or USA.

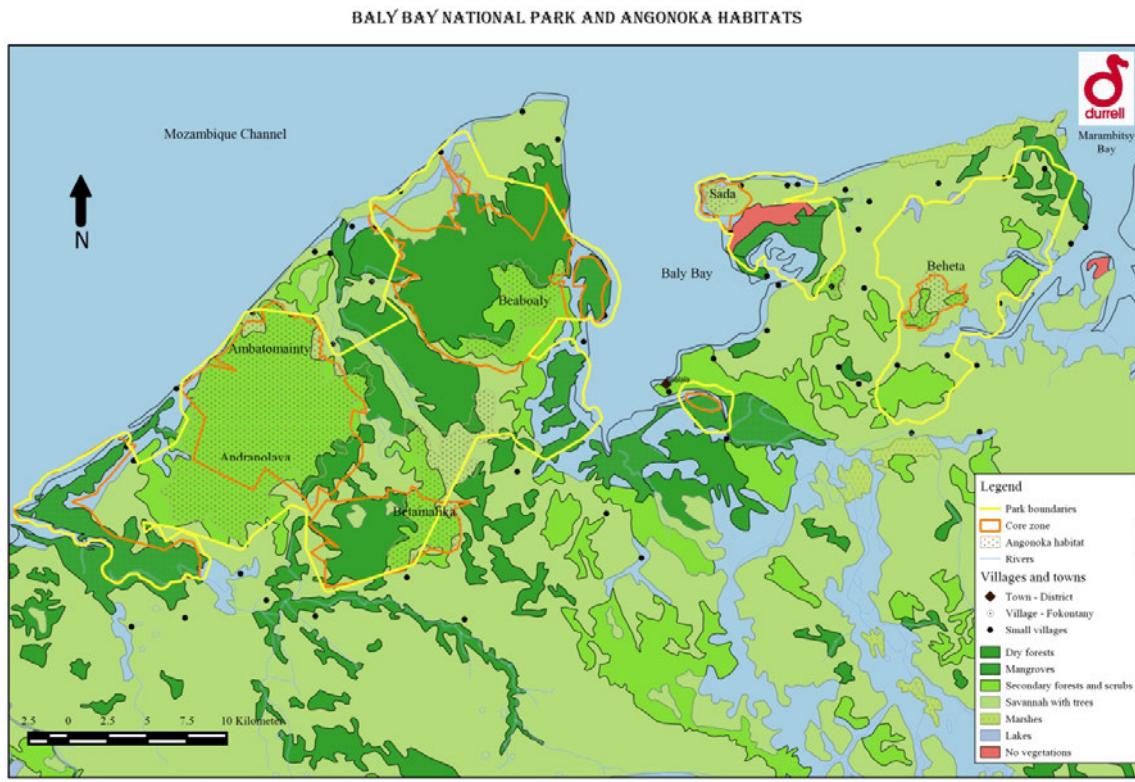
The specific problems this project addresses are the challenges in providing effective community-led anti-poacher patrols; low capacity levels within National Park staff, police, local judiciary and Customs officials to track, arrest and prosecute those involved; knowledge gaps concerning the extent of poaching within local communities; attitudes in local communities towards poaching and knowledge of the whole trade chain from poaching in Madagascar to collectors and traders in Southeast Asia.

Historically, poaching levels were associated with levels of political instability. As governance effectiveness declined and regional authorities were not focused on implementing locally relevant laws or management actions, levels of poaching (as with other criminality) increased. This is enabled by corruption. Between 2009 and 2013, the country went through a prolonged period of political instability and poaching became the dominant threat. At the end of 2013, a new President was elected with a mandate of re-establishing international support and challenging corruption. However, people have not received this support and instability has continued (the entire government resigned in March 2016) and regional government has been neglected. For a good summary of the challenges facing conservation in Madagascar as a whole, we would like to highlight a series of articles published by Mongabay.com on the topic in October 2017 (see <https://news.mongabay.com/series/conservation-in-madagascar/>).

Towards the end of the first year of project implementation, from December 2015, there was a rapid escalation in poaching pressure, which was accompanied (or driven) by a rapid increase in local prices. In 2010 animals were being offered for \$22 and now in 2016 Durrell staff have

been offered animals locally for \$650 each. This is a staggering increase in local price and the exact reasons for this increase still need to be identified. Internationally market availability and prices (as reported through market surveys carried out in the project by TRAFFIC) appear unchanged, with adults being sold for upwards of \$40,000 each. The level of threat facing the species and also the project after this point were extreme, requiring a re-appraisal of the most effective actions. Past activity had established community-based monitoring patrols within the National Park to identify poachers and their signs. Through this project we have implemented SMART (Spatial Monitoring And Reporting Tool) to improve the current management and monitoring system, use of data and communication of surveillance efforts. We carried out the largest training event in Madagascar with partners WCS (see Year 1 report) to start running the system. To increase the likelihood of poachers being caught and prosecuted we worked with law enforcement agencies and the Judiciary to train and inform them. But at the regional level (either in Mahajanga or Antananarivo), all poachers taken in front of tribunal have been released or given insignificant sanctions. Therefore, many of the activities outlined originally within Output 4 had to be re-appraised. Instead, interventions started to focus on a much small group of trustworthy members of the judiciary who would implement the law transparently. This strategy proved to be effective and is discussed more later in this report.

As of June 2017, the poaching pressure has led to the almost complete removal of the ploughshare tortoise from three of the five sub-populations. The project enabled the team to address this heightened threat directly, adapt our strategies, raise the profile of the problem internationally and mobilise new capacity and resources to tackle the problem. The project has ensured that the ploughshare tortoise was not poached out of the wild.



2. Project Partnerships

The development of the partnership within this project is one of the major successes. The original proposal aimed to address the entire trade chain from protection and monitoring of animals in Baly Bay National Park (BBNP) to buyers and dealers in South East Asia. While Durrell has worked with all the different partners individually this was the first time that we had

worked together as a collaborative group. There have been a number of emerging results that came out of this partnership:

- WCS have considerable experience with IWT issues. In Madagascar, they have worked with rosewood smuggling and radiated tortoises in the South. Within this project they were specifically involved in providing training on the use of SMART within BBNP. But our relationship has grown concerning IWT issues. WCS were instrumental in developing the specific communications for the CITES COP in South Africa (See later sections), that resulted in the formation of the CITES chelonian task force being created. Durrell is currently working with WCS on broader issues involving smuggling in East Africa as well as SE Asia.
- AVG became involved with natural resource management and through this project started working with the ploughshare tortoise crisis. During project implementation, they formed a relationship with the NGO EAGLE to address smuggling and this resulted in a successful arrest and conviction of two dealers where known to have sold ploughshare tortoises (unfortunately we could intervene to rescue the ploughshares) and were prosecuted for selling radiated tortoises. Equally AVG have led on the development of a 'virtuous circle' of magistrates and law enforcement within Madagascar who are committed to implementing national law, this has been one of the positive outcomes of the project and will be an important foundation going forward.
- TRAFFIC in Southeast Asia compiles and analyses the data, and produces intelligence reports which are delivered in a timely and confidential manner to relevant enforcement agencies. TRAFFIC has always had a focus on reptile smuggling in SE Asia and have supported Durrell in the past. But through this project, they were able to recruit a person who was focused on the Indonesian trade in reptiles and ploughshare tortoises in particular. This person has been able to greatly increase their focus on the issue, build their informant network and identify dealers; at least one of which is currently under investigation as this report is being written.
- TRAFFIC were able to increase their partnership with enforcement agencies in Indonesia, Malaysia, Singapore, The Philippines and Thailand and there is now regular information flow. They have also developed their relationship with Interpol over ploughshare tortoise trade and Interpol is working directly with the Madagascar Task Force.
- TRAFFIC have now been appointed as advisors to the Department of Wildlife and National Parks in Malaysia to assist in any repatriation events of Ploughshare and other Malagasy tortoises.
- Turtle Conservancy have been consistent supporters of the ploughshare tortoise work in Madagascar. They have constantly provided their expert guidance, advice and support to the programme, and also international relations between key experts and stakeholders. They have now stated that the ploughshare tortoise is one of the four priority programmes going forward and will be supporting the development of new captive breeding centres in Madagascar for the species.
- During the final six months of the project, there has been a major breakthrough in Indonesia with regards to facilitating law enforcement action of Ploughshare traders in Indonesia. Currently, Indonesian laws do not cover the domestic trade in non-native CITES I listed species. TRAFFIC worked together with a local NGO to build up a case on a known Ploughshare trader, presented it to the National Police, and managed to convince them to act using the Quarantine Law. While this particular case is still pending owing to unforeseen problems, the fact that police agreed to act is a massive step forward in mitigating the open trade of Ploughshare Tortoises in Indonesia.

We cannot over-emphasise how important this working relationship between different government, national NGO and international NGO partners has been in addressing the ploughshare tortoise crisis. The partnership established this project has become the partnership responding to the ploughshare situation. As such the partnership will continue and

expand. Specific developments will be discussed in detail in later sections, but in brief the following next steps are being developed with partners as a result of this project:

- With WCS and TRAFFIC – working on concepts for the development of IWT national capacity and support to implementation of legislation, through the integration of experience from SE Asia and Africa.
- With AVG continuing the development of work with magistrates and authorities to improve convictions.
- With TC – development new captive breeding facilities to ensure the sustainability of the captive population of ploughshare tortoises
- With MNP and government of Madagascar, the protection and management of BBNP.

The collaboration with the UK Border Force was an early result of the project. Their engagement was not only an important training opportunity with the Customs and airport law enforcement authorities, but it was also an important opening to develop a relationship with the Customs authorities that still continues. We have not been able to replicate or repeat the training provided, but through the work of Output 4 we have held additional workshops and meetings involving Customs and will continue to look for opportunities to improve enforcement at the borders.

Stakeholders and project constituents

At a broader level, i.e. outside the specific partnership of the IWT project, there was a large number of important stakeholders involved in the delivery of activities. Local communities around BBNP are central to the conservation efforts in the region. With MNP, Durrell continued to develop the community patrol programme to improve monitoring for signs of poaching. During project implementation this programme was expanded to include patrols within the core zones and outside it. One of the challenges has been the management of data and flow of information between partners to make effective decisions. We have struggled with the capacity needs in terms of data management and have made a number of staff changes as a result. Equally at the height of the poaching pressure, these patrols were expanded to include 'brigades mixtes', which are patrols including armed members of the police and military. The costs associated with the delivery of these armed patrols was met by Durrell and then by the Madagascar Biodiversity Foundation. The use of these patrols is also a sign of the importance placed on the situation by the Madagascan government and MNP.

Relations with regional judiciary have slowly improved during the project. The Judiciary are recipients of project activities and have been identified as highly corrupt by past independent assessments (see Transparency International Corruption Perception Index 2015). For the project they are identified as a barrier to successful prosecution of poachers. Through the project and the efforts of AVG, judiciary representatives attended all meetings and workshops organised during the project (see meetings records for attendance in Output 4). While this was a positive step forward, participants often remained defensive and unwilling to engage. Opinions expressed at meetings include the interpretation of NGOs wanting to improve the technical content and quality of formal complaints brought before the courts as a desire to successfully prosecute anyone purely to secure a successful conviction. Some law enforcement view the problem as the main responsibility of NGOs such as Durrell and MNP, and in fact was being exacerbated by these NGOs not 'doing their jobs of stopping poachers at the grass roots level' (Opinion expressed during a workshop). Breaking down these barriers remained a challenge throughout the project.

Another important collaborating institution is the National Tortoise Committee, chaired by the "Directeur Général des Forêts" and including government offices such as the Service managing flora and fauna in the Ministry of Environment, and Madagascar National Parks, Conservation International, Turtle Survival Alliance, Durrell and AVG. The project is closely integrated through participation of project partners. Project partners maintained an active role within the Tortoise Committee and they were also present at the final project workshop.

3. Project Achievements

3.1 Outputs

The project had four outputs which focussed on different aspects of the illegal trade chain – protection in the field (Output 1), local engagement in poaching (Output 2), national and international collaboration (Output 3) and law enforcement (Output 4). Output 0 was the project management function.

Output 1: Improve the coverage and efficiency of community-park ranger patrols in Baly Bay National Park (BBNP)

The overall aim of this Output was to improve patrolling within the National Park to stop and/or minimise the number of ploughshare tortoises being poached. Also if patrollers saw secondary signs of poachers (camps, footprints etc), they could respond rapidly by communicating with the park authorities. Coupled with this, our goal was to make patrolling more difficult to predict and to be able to measure the effectiveness of patrolling effort. The implementation of the SMART anti-poaching software was aimed at providing the necessary data management capacity to achieve this.

The National Park is not particularly large, 57,600 hectares, but the tortoise habitat (16,000ha) is dense and difficult to move in. During the lifetime of the project, patrol coverage was increased significantly from 1,444 hours to 2,444 hours per month. There are two sets of patrol teams – those coordinated by Durrell working in the core ploughshare habitat of the Park (26 patrollers) and a broader set of 150 patrollers monitoring the entire National Park, coordinated by Madagascar National Parks (MNP).

In total the project involved 176 patrollers from both teams in the park. Teams were patrolling every day and a paper report was produced by each team for each day of patrolling. In year 2 this equated to 2,674 paper reports being submitted to MNP and Durrell. This was completely impractical and there was a major lag in the data being verified, entered into the database and used by SMART.

Within the core ploughshare habitats there were five patrols active for six hours each day. Patrols were active every day of the year and therefore patrol effort within the core zones was 10,950 hours per year. Over the lifetime of the project we were not able to grow the coverage as set out in the Indicators (1.1 and 1.2), and coverage remained at approximately 50% of the park. This is because to achieve our Year 3 target in terms of patrol effort, we aimed to open a new patrol base in the national park. However, this was not possible and patrol efforts were consolidated rather than expanded.

In the Year 2 annual report, we discussed the challenges faced in the management of the patrol programme and a number of management responses were discussed. These changes were made, but during Year 3 it was clear that further changes were needed (summarised in an internal evaluation document included in the final outputs). Thus, an additional manager has been recruited to manage the Beaboaly release population patrols, while the manager hired in Year 2 is focussing on all other areas. This is because as the poaching pressure escalated we had to dramatically increase security within the Beaboaly area. We have also moved a number of patrols from the East of the park to the west. This is in response to two of the sub-populations effectively being emptied out of animals.

The implementation of the SMART software was much more complex than originally anticipated. In Year 1 the project trained 44 people (21 NGO staff and 23 community patrollers, Indicator 1.3) and provided support to Durrell and MNP to set up the software and start to use it. However, the project was unable to continue the training programme, and it was not foreseen within the budget. The use of the software and entry of primary data was complex and time-consuming at a juncture when pressure on staff was acute; and headway was extremely slow.

Of the five core sub-populations, the project was able to establish SMART as a management within the Beaboaly site. Figure 1 provides an example of a patrol effort map generated by SMART for the second quarter of 2016 and Table 1 provides primary patrol effort data for a

single site for the period between September 2016 and May 2017 to highlight what SMART is capable of if we can fully implement it.

The project was not able to deliver the management function associated with the use of SMART or its reporting to law enforcement (Indicators 1.5 and 1.6) as foreseen in the original proposal. SMART reports have been produced for the Beaboaly site, but with the increase in poaching law enforcement was provided by constant mixed patrols with military and police agents.

A full population viability analysis (PVA) was carried out and led by Dr. Gwen Maggs (Activity 1.7). Gwen coordinated a data collection process, remote workshops with project staff, and modelling to develop a new PVA for the species. This indicated that the wild population before the major poaching crisis was unlikely to be sustainable in the long-term. It also highlighted that juvenile survival was a very important factor; something which had been discounted until now. Therefore this is an important report that will shape the future protection and captive breeding strategies for the species. The PVA and supporting documents are included in the final outputs.

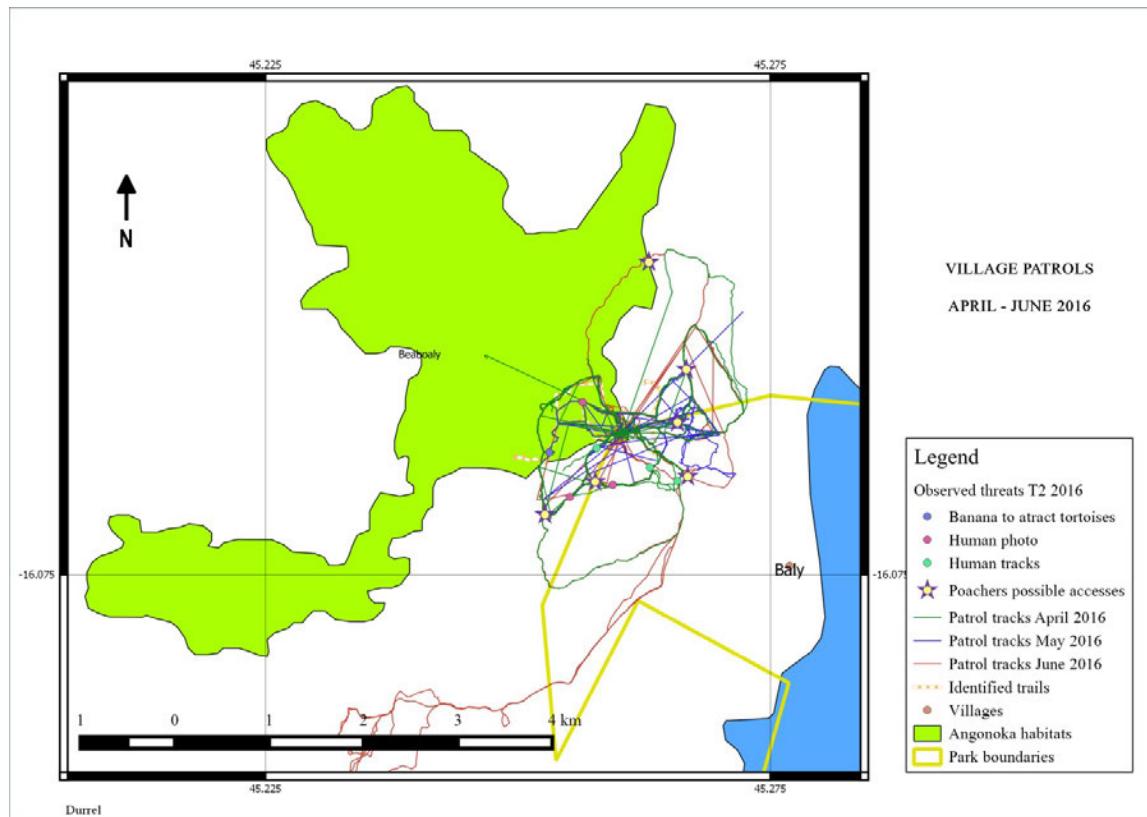


Figure 1. Patrol map for the community patrols around Beaboaly during Quarter 2 of 2016.

Date	Number of Days	Number of Active Patrol Hours	Distance (km)	Number of Employees involved	Number of Patrol Hours	Person - Field Hours	Person - Days
Sep-16	42	353	270	4	356	706	84
Oct-16	28	96	166	2	160	191	56
Nov-16	30	118	177	2	188	235	60
Dec-16	30	128	135	2	193	256	60
Jan-17	44	223	154	6	229	808	161
Feb-17	56	406	175	7	421	1406	196
Mar-17	40	264	136	9	279	1428	210
Apr-17	42	239	227	4	279	507	94
May-17	18	369	102	9	369	2055	98

Table 1. Patrol effort in Beaboaly from Sept 2016 until May 2017

Overall, Output 1 established the use of SMART within Baly Bay and supported the management and maintenance of the community patrol programme. Therefore, these elements were successful and without them patrol effort would have declined and been less effective. Due to this patrol effort there have been over 128 signs of poaching identified from reports and poachers have been apprehended. However, we must recognize that our ambitions far exceeded our capacity to deliver in terms of the integration of the SMART tools into routine patrol management. This would most likely have been the case had there not been a massive increase in poaching pressure, but it was certainly exacerbated by the demands placed on staff capacity to respond to this pressure. We must also be clear that patrolling did not contain or greatly reduce poaching pressure, as evidenced by surveys showing that at least two of the sub-populations have been emptied of tortoises and also a number of captive-bred and released animals appearing on social media sites for sale.

Output 2: Identify the role of local community members in poaching

The original aim for this Output was to get a better understanding of how local community members were involved in poaching. It is clear that animals are taken from the wild by local community members who then sell them on to dealers and smugglers for shipment out of the country. However, understanding community attitudes and who is primarily involved lie at the heart of developing effective responses. Communities in this region of Madagascar are extremely poor. The average Multidimensional Poverty Index for villages in the country is 0.457, which is higher than the national average of 0.420 and shows this to be one of the poorer regions in the country. Communities in this region are remote and have few livelihood opportunities. The National Park was developed in 1998 and while extensive community engagement was proposed, in real terms much of the park's regulations were imposed and not adequately integrated or developed with the communities. Specifically, this included the establishment of the park boundaries and zonation within the park. Therefore at present communities do not benefit from the park's presence and due to current zonation, have seen reductions in the activities they can take part in. Thus there is limited positive sentiment towards the National Park. Set against this background, Output 2 aimed to undertake an independent (not related to Durrell) assessment of community attitudes and engagement in poaching using interview techniques developed to understand illegal behaviours in other contexts. This component was led by Madagasikara Voakajy (Mavoa) who have implemented this approach in other regions of Madagascar to address illegal bushmeat hunting and their final report is included in the final project outputs folder.

This output was achieved as set out in the logframe. Mavoa started their work in Year 1, by establishing their presence within the 11 primary communities and starting interviews. They established their methodology and identified a group of 10 plant and animal species (including the ploughshare) to include in their interviews. They also established logbooks in seven separate locations and the logbook holders were asked to record all sightings of wild harvested products that they encounter in the villages (indicator 2.1 delivered). Between October 2014 and July 2016, a total of 919 sightings were recorded, of which 15% were wild harvested plants (two species of yams) and 85% were ten species of wild animals, including bats (Madagascar flying fox), birds (Guinea fowl and two wild ducks), tenrecs, lemurs and marine species (sea eel, crabs and sea turtles) and the ploughshare tortoise. For ploughshare tortoises, individuals were seen in three of the seven locations and 21 sightings were made, most in 2015 and 2016.

During the same period, Mavoa undertook 854 individual interviews using the Randomised Response Technique (RRT) in all 11 communities. The RRT methodology aims to ensure that individual respondents are able to maintain their anonymity and no link can be established between the identify of a respondent and their responses. The approach works by using a randomising technique, dice or in this case coloured marbles selected randomly, to establish whether a sensitive or non-sensitive question is answered or not (see Razafimanahaka et al 2012 for more detailed discussion of the methodology). Mavoa found that the ploughshare tortoise was the most sensitive topic that they have had to address. Fourteen percent (121 respondents) refused to take part in the process based on the sensitivity involved, this is

compared to 2% within bushmeat work elsewhere in Madagascar (Razafimanahaka et al 2012). Most of the respondents were local (rather than migrants) and fishers or farmers. Young men were more likely to be engaged in the illegal harvesting of wildlife products, including sea turtles and ploughshare tortoises.



Figure 2. Community members in group interviews with Mavoa staff discussing wildlife resource use.

Through focus group meetings (Indicator 2.2), Mavoa were able to gain some understanding of incentives and barriers to poaching tortoises. Unfortunately, the incentives far outweigh the barriers, with ploughshares seen as a source of rapid money. Equally negative sentiments to the national park and conservation measures were combined with an assessment that enforcement was weak and the patrols not sufficient to catch poachers, therefore poaching was also seen as low risk. Finally, younger members had fewer jobs and more limited access to money, therefore it is reasonable to assume that with less respect for traditional values, younger community members want to improve their quality of life and see poaching tortoises as a low risk way of achieving this.

The outcome of this set of activities is enhanced knowledge and understanding of community-based perceptions and actions associated with ploughshare poaching. These results will be used to develop more detailed behavioural change interventions.

Output 3: Understand the trade chain between Madagascar and SE Asia and foster greater international collaboration

The original goal of this objective was to establish a working relationship with authorities in SE Asia, principally Thailand and Indonesia, which were identified as important countries receiving stolen animals. The aim was to develop our intelligence concerning the movement of animals within the region (including key dealers and where animals are moved to), facilitate the repatriation of animals seized on entry and to build inter-governmental collaboration, which was identified as a major weakness. This Output was led by project partner TRAFFIC SEA.

In Year 1, TRAFFIC was unable to recruit the position for a chelonian manager (Activity 3.1), but this role was performed by a short-term role replacement. Then in Year 2, with the recruitment of a coordinator based in Indonesia, activities increased rapidly. TRAFFIC collects all intelligence in the relational databased I2 and use this to build an understanding of the trade networks. Throughout the project there was constant communication between the project managers and TRAFFIC concerning information arising in both Madagascar and SE Asia. This informal communication was very important in developing an effective relationship with law enforcement agencies concerning shipments of animals being smuggled. During the delivery of this project there were 10 different seizures with a total of 79 ploughshare tortoises, seized in Kenya, Indonesia, Malaysia, India and Madagascar. At the time of writing this report, an active investigation is underway, which has resulted in a dealer being arrested and at least one adult ploughshare tortoise seized. This animal will be repatriated back to Madagascar.

In terms of producing intelligence reports (Activity 3.2), TRAFFIC produced a total of 46 reports, 10 of which were disseminated to law enforcement agencies (Output 3, Indicator 1). Given the organised nature of this trade, the information collected does not always necessitate immediate enforcement action. Instead, it requires development and further research and forms part of our ongoing work to link up transnational trade of these species in the region. TRAFFIC's Senior Crime Analyst has been instrumental in facilitating new and updated methods of handling and analysing intelligence data. The TRAFFIC Data Entry staff have also been trained by the senior crime analyst in these processes and procedures to ensure that all data received can be used to its full potential.

Mapping of criminal networks and smuggling routes used by traders to move ploughshare tortoises was carried out. The investigation team met in Kuala Lumpur in February 2017 to discuss progress and compare results. Key traders and their associates in each of the target countries were linked together to identify the main trade routes and the personnel involved.

In March 2017, TRAFFIC's Senior Analyst - Crime Data Project manager met with Interpol and discussed turtle and tortoise trade in general, and specifically the Ploughshare trade in Indonesia. Interpol were keen to work together, and now are actively working on turtle/tortoise trade. TRAFFIC SEA has actively supplied information to Interpol around this trade, who in turn have worked direct with enforcement agencies in the region [Malaysia, Thailand, India]. As of June 2017, Interpol is working directly with the Madagascar Task Force. TSEA has supplied information for Indonesian traders.

As part of activities 3.2-3.4, TRAFFIC collected data on trade in ploughshare tortoises from a number of sources. They carried out 13 separate market visits in Indonesia, with 17 different individual Ploughshare Tortoises were observed on sale. Five were recorded at the reptile expos and the rest were observed on sale at two shops in one of the markets. Prices for Ploughshares ranged from IDR 180 million (USD 13,500) to IDR 400 million rupiah (USD 30,000). At the same time, 286 Radiated Tortoises were counted at 16 different retail outlets. Prices ranged from IDR 15 – 250 million (USD 1,100 – 19,000). Online monitoring identified 34 adverts were obtained from the online surveys comprising 29 different sellers/traders and a possible 57 individual ploughshares for sale (duplicate adverts not yet removed). The use of social media as a selling platform has steadily increased over the last five years.

Activities 3.5 – 3.7 focussed on the international collaboration between Madagascar and Thailand, and other SE Asia states concerning the seizure and repatriation of smuggled tortoises. It became very clear early in the project that activities would not proceed as originally planned, but we believe this has since become one of the most successful and impactful components of the project! National level capacity and interest in pursuing the repatriation of tortoises has not increased significantly during the project. Meetings were established for Madagascan representatives to meet their Thai counterparts at the Bangkok CITES COP in 2013, but they failed to attend. Since that time communication between the countries has been very weak with countries seizing animals being unwilling to release them to Madagascar and the Malagasy authorities not demanding their return. Equally it has not been possible to establish a collaborative MOU between the governments of Madagascar and Thailand (discussed in Year 2 annual report). Therefore activities 3.6 and 3.7 were not delivered during the project. However, and in response to the escalating poaching crisis, the partners have adapted their strategy.

In Year 2 and 3 the partners started work on raising the profile of the poaching crisis at the international level. Partners Turtle Conservancy, Durrell, TRAFFIC and WCS worked jointly on developing a strong communications position that was disseminated both to the media (National Geographic, Darwin Newsletter, web news) and to the delegations of the UK, Germany, US and the European Union (included in final outputs). A position paper was developed and this was submitted as an information article to the 2016 CITES COP in South Africa. Durrell supported the Government of Madagascar to take an active role at the CITES COP (Activity 3.5), with the project manager, Hasina Randriamanampisoa, attending the COP as a formal member of the Malagasy delegation.

The multiple issues facing the ploughshare and many other chelonian species led to the formation of the CITES Task Force on Tortoises and Freshwater Turtles. This Task Force met for the first time in April 2017 in Singapore and a delegation of three Malagasy representatives

were present and are taking an active role in the process. A number of recommendations have come from the CITES COP (COP17 d73, <https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-73.pdf>) and the subsequent meeting in Singapore (https://cites.org/eng/news/pr/cites-task-force-agrees-on-strategies-to-combat-illegal-trade-in-tortoises-and-freshwater-turtles_28042017) that the project partners will pursue and support the government of Madagascar to adopt.

As a final output from this set of activities, TRAFFIC is completing a summary report concerning the state of trade in Malagasy tortoises (Indicator 3.3, Activity 3.4). This report (included in the final outputs) will be widely disseminated to governmental and non-governmental partners, including the CITES Task Force. TRAFFIC have also reported on the state of tortoise trade in SE Asia: <http://www.traffic.org/home/2016/2/24/legal-loopholes-leave-non-native-wildlife-unprotected-in-tha.html> (Publication in Dropbox, together with TRAFFIC annual report).

In summary, we believe that the objective of this output has been met. There is a close working relationship between partners monitoring illegal trade between Madagascar and SE Asia, that has and will result in future seizures. Increased engagement on behalf of regional governments has been fostered through direct support from project partners and the formation of the CITES task force. Equally, TRAFFIC has been working with local agencies to utilise novel legislation to arrest a smuggler, which could set an important precedent for many other cases. Finally, the completion of the trade report will bring together all the latest knowledge concerning the illegal trade in Malagasy tortoises as a central resource for future actions.

Output 4: Improve law enforcement both regionally and nationally to break the trade chain.

This output set out to support national capacity to improve the seizure of tortoises, arrest of poachers and smugglers and then successful prosecutions to both reduce the number of tortoises entering the trade and leaving the country, but also to send a clear message that tortoise smuggling would not be tolerated nationally and would result in prosecution.

Activities within the output were led by project partner AVG with close involvement of Durrell and TRAFFIC. This has been one of the most challenging Outputs to develop and deliver. This has been in part due to the changing circumstances concerning the scale of poaching, the necessary responses and immediate needs. It was also due to the challenges of engaging with multiple law enforcement agencies at the regional and national level, which was further complicated by changes in government during the project. But it was also due to failures within the project partnership, which will be discussed.

The project aimed to develop sentencing guidelines to support law enforcement (Indicator 1) and then couple this with training for Customs agents (indicator 2), to improve knowledge and application of the law (Indicator 3).

In Year 1, the project team engaged the UK Border Force to provide specialist training to Customs agents at the National Airport, the exit point for the majority of animals leaving the country. The process of developing the training for Customs agents has been more complicated than anticipated. This was due to the launch of the new government in Madagascar and then the replacement of the then head of the Civil Aviation Authority in Madagascar. We nearly had to postpone this training due to the change in authorities.

However, Durrell and AVG mediated a meeting with the Ministry of Transport, and a workshop with all the different airport management bodies (Gendarmes, Police, Customs, ADEMA, Civil Aviation Authority, and Ministry of Environment) was eventually organized in October 2014 (Activity 4.1), and a second one in March 2015 to review progress according to the action plan agreed during the first meeting. Just before the second meeting, these airport management bodies also attended a full day CITES training provided by UK Border Force and MEEF (Activity 4.8). In total over 300 staff were involved in multiple training workshops during the project and this was a major result for the project.

One of the most difficult components of this whole project has been forming a working relationship with Magistrates either in Mahajunga or Antananarivo. Generally, magistrates were

unwilling to engage with project activities and to look at how to appropriately try and sentence those accused of smuggling wildlife. This was also made more challenging by internal problems faced by one of the partners during project implementation, which limited their ability to operate. As a result, we were unable to develop the work on sentencing guidelines (Activities 4.3 – 4.7). The project team adopted an alternative strategy, which was to work with a virtuous circle of magistrates; those that had expressed an interest in the issues and were known to be honest. This approach was far more effective and it meant that instead of trying to influence a wide number of magistrates, project effort was placed on following specific trials and ensuring that due process was followed. Since this approach was adopted the cases followed have resulted in significant prison sentences and fines. During the project period there have been five cases brought before magistrates and these have resulted in successful prosecutions of 16 people. A major challenge has been that sentences and/or fines have been insignificant. Within these five cases, a total of £ [REDACTED] was handed down in fines, much higher than previous convictions. Fourteen of the defendants were sentenced to a total of 38 years in prison. This has been a successful strategy that will be developed and further utilised for ploughshare tortoises, but also other natural resource exploitation cases in Madagascar.

The Dina, local traditional law, was passed by the regional courts in 2016 and is now in force. The Dina focusses on the security of natural resources, primarily cattle, but includes protection for the ploughshare tortoise. A Dina is supposed to have an implementation committee within each village, which is responsible for dissemination and regulation of the law locally. Through this project, Durrell led or supported 13 separate meetings and workshops with a total of 915 participants in 10 communities (Activity 4.11, Table 2)

Function	VILLAGE	COMMUNE	Nombre	Nombre des Participants
General meetings	Ambohipaky	Ambohipaky	1	125
	Antamboho	Soalala	1	70
	Amboroka	Soalala	1	80
	Ankera	Soalala	1	110
Set up local dina committees	Antanandava	Soalala	1	120
	Ambatojoby	Soalala	1	55
	Amboroka	Soalala	1	20
	Baly	Soalala	1	45
	Ankaboka	Ambohipaky	1	35
Political engagement	Mahajanga	Mahajanga	3	(Préfet, Chef de Région, Tribunal, DREF)
Presentation of completed dina	Soalala	Soalala	1	250
		T O T A L	13	914

Table 2: The meetings organised to establish, communicate and validate the dina.

Although this Dina, may have committees in place, there remains a limited understanding as to its function at the community level and also whether it will have the desired impacts. However, we believe that if we can continue to support its implementation, it will have an important impact, especially in terms of securing cattle owners from rustlers, which is a major local concern. Therefore, an important future action, which has been submitted to CEPF for follow-up funding, is to embed the Dina within community life, build local understanding and support for its implementation. This will improve protection for cattle owners and also engage them more effectively in protection of BBNP.

The social marketing work outlined in activities 4.12 – 4.15 were not completed. This was due to two major issues. The first was the massive upsurge in poaching pressure, which changed the sensitivity of the issue of tortoise conservation, something that was echoed in the results from the work carried out by MaVoa and second was through poor planning within the project team. We need to recognise that in putting these activities together, we had under-estimated the challenges involved in designing a social marketing campaign, from the initial research to

the team needed to deliver activities and monitor results. We believe the approach is suitable and much needed in the region, but the activities would take a significant portion of the resources of the whole project, rather than the small allocation made available. We accept this was a failure on our part and not caused by external events. However, in the final year of the project, we organised activities around events that community members and BBNP staff could agree, which was management of firebreaks (Activities 4.12, 4.13). This was an early conservation success within the establishment of the national park and community-led fire management had a positive impact on reducing habitat loss threats to the tortoise and the park. Through the project we re-constituted these activities, but also associated them with a community meal at the end of the work to celebrate the efforts and also provide a communal event around which we could communicate some of the broader challenges with the protection of the park.

In general, while this Output has been the most difficult to deliver, we were able to make tangible progress with the training of Customs authorities, development of the local dina and establishment of an effective methodology to working with a small group of motivated magistrates to successfully convict smugglers. These results have already informed new funding applications and projects in other systems (e.g. Menabe dry forest) as well as establishing the foundation for a new project to explore the future of a national platform for illegal wildlife trade in Madagascar.

3.2 Outcome

The project outcome was stated as “Poaching no longer seriously threatens the ploughshare tortoise as communities and MNP more effectively guard and monitor this species alongside improved law enforcement and cooperation along the trade chain.” The project was not able to achieve the central component of this outcome, that poaching is no longer a serious threat. At the start of the project we saw poaching escalate dramatically and the remainder of the project was focussed on how to deal with the sudden shift in pressure.

However, additional components of the outcome statement were achieved:

Improved law enforcement as evidenced by the inclusion of mixed armed patrols in the field, training of customs agents and identification of virtuous magistrates, which all led to the successful prosecutions of smugglers and was achieved by the project;

Greater collaboration between MNP and the communities was achieved through training patrollers and expanding patrol effort and implementing new patrol monitoring methodologies;

Greater cooperation was achieved along the entire trade chain, through the establishment of the project partnership, the recruitment of focussed trade staff in SE Asia; the sharing of intelligence and data between partners; the high-level CITES interventions and the establishment of the CITES tortoise task force.

The project team identify two core factors that led to the outcome not being achieved. The first was the external force created by the massive increase in poaching pressure. Partners had no forewarning that this was going to happen and still cannot identify what drove it. Our speculation is that rumours were spread among dealers concerning the imminent extinction of the species and therefore there was a rush to get as many animals as possible. This was evidenced by the massive increase in price that was offered to Durrell staff by poachers. But we as yet do not know what triggered this interest.

The second factor was internally driven. The project design was too ambitious for the capacity levels within the partnership and especially within government agencies. This was further exacerbated by the broader political situation in Madagascar, where relationships with the Customs authorities were hindered by the change in government at project start and the lack of strong regional governance, which led to weaknesses in law enforcement. The unwillingness of Magistrates to engage with the process and corruption within different agencies all meant that securing action at a regional level was very difficult. However, we have to recognise that the project team were overly-ambitious in setting out activities with these stakeholders that were difficult to deliver.

These problems were identified within the assumptions – Assumption 1 focussed on the state of political stability which was weak in year 1; Assumption 3 focusses on MNP effectively implementing SMART Through their National Park network. This was not rolled out under the originally conceived timetable and was delayed within MNP; Assumption 5 identified the risk from weak engagement with law enforcement and the judiciary and Assumption 7 required that regional authorities effectively adopted the Dina.

The project team responded to the following challenges:

- 1) Difficulties in implementing SMART – Durrell focussed efforts on the core area in BBNP, the Beaboaly release site. Durrell recruited additional staff to manage the data needs and work with the patrol teams. Now we have the SMART system working effectively within this area.
- 2) Lack of engagement by judiciary in Madagascar – this was exacerbated by the internal problems within project partner AVG, but the team changed the response strategy by focussing on a small group of supportive magistrates and focussing on securing convictions through them. This strategy worked.
- 3) Challenges with corruption in Indonesia – Corruption has been a major challenge in Southeast Asia, and particularly in Indonesia. Finding non-corrupt Indonesian officials to work with and pass on information to, took a long time to achieve. TRAFFIC does not have an official presence in Indonesia, so working directly with the government and law enforcement officials via the TRAFFIC's regional office in Malaysia was challenging. This required finding a trustworthy intermediary who had contacts and influence within the National Police Force. (Other local level police are extremely prone to bribes and corruption.)
- 4) Failure to secure bilateral agreements with Thailand – the project team focussed on high-level communication at the CITES COP in South Africa, supporting Madagascar's attendance and engagement at the conference, international communications and the formation of the CITES tortoise task force.

TRAFFIC aimed to reduce open availability of this species in Indonesian and Thai markets by a minimum of 80% by the end of 2016, through support to enforcement agencies, and through public awareness and public involvement.

Both Indonesia and Thailand have national legislation that does not adequately allow for enforcement against individuals keeping Ploughshare Tortoises. An analysis of the legislation has been undertaken, and published in two peer-reviewed papers. These loopholes, which do not allow for the effective implementation and enforcement of CITES, are being taken into account by the respective governments, who are currently reviewing their wildlife legislation.

Open trade of Ploughshare and Radiated Tortoises in Thailand appears to have decreased following raids on Chatuchak Market in 2008 and 2010. The trade however may have been pushed underground or has shifted to online markets, as no individuals have been observed for sale in the open market in surveys between December 2014 and August 2016.

Online platforms are now posing a more serious threat and undermining conservation efforts. In countries like Thailand for example, the threat posed by online trade is more evident as they provide a 'protected' marketplace for traders to sell Ploughshare Tortoises, without having to sell them in the traditional (physical) markets.

Thailand's role as a transit point of distributor appears to have diminished, with traders reacting to targeted enforcement action at Thailand's international airports between 2010 and 2013, and shifting their routes to include Malaysia and other countries.

The open trade of Ploughshare Tortoises in Indonesia is still rife, but TRAFFIC's recent publications highlighting the loophole combined with the pending operation (see below) will draw greater attention to this issue and drive enforcement agencies to take more punitive action against individuals trading in and possessing this species. A revision of the current legislation is underway and is apparently set to protect all non-native CITES I listed species, but when this new revised law will be passed is still not known.

TRAFFIC has been collaborating with a local NGO in Indonesia to work around the legislative loophole by using the Quarantine Law to better effect. While Ploughshare Tortoises are not currently protected in Indonesia, each non-native species must have passed through quarantine and received a certificate. In absence of the correct quarantine permits, the animals can be seized and perpetrators can be arrested and punished (Article 5, Chapter 11, Law No. 16/1992 concerning Animal, Fish and Plant Quarantine). Violation of this law can result in a maximum imprisonment of 3 years in addition to a maximum fine of IDR 150 million (USD 8,500).

While the outcome of reducing trade in Indonesian and Thai markets has not yet been fulfilled, we feel that we have taken some major steps towards this goal. In Indonesia, the legislative loophole has enabled open trade in Ploughshare Tortoises for many years. However, we are currently on the verge of achieving the first ever arrest (and hopeful prosecution) of a Ploughshare trader. TRAFFIC have been building up a database of Indonesian Ploughshare traders for the last 3 years. Intelligence data has been collected with relative ease owing to the fact the trade is open. If this current case is successful, TRAFFIC can supply the names and details of dozens more traders to the Indonesian police to carry out more arrests and confiscate Ploughshares in their possession for repatriation to Madagascar.

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

The project impact statement was “The illegal trade in Malagasy chelonians is halted through improved monitoring and the implementation of appropriate law enforcement at all levels throughout the trade chain both in Madagascar and internationally.”

On one level we are no nearer achieving this long-term impact. Poaching continues and ploughshare tortoises have been nearly extirpated from the wild. Equally radiated tortoises are being poached at extreme rates for SE Asia. Every shipment of ploughshare tortoises that is seized, invariably contains up to 100 or more radiated tortoises. However, through the project, we would propose that a number of the measures put in place have moved conservation efforts forward and established the foundation for a step-change in how Madagascar addresses its illegal wildlife problems. Key evidence for this includes:

- the training provided to Customs agents and their stated desire to continue it, showing a willingness from Customs to engage with the process
- The continued application of mixed armed patrols in the field, being funded by the Madagascar Biodiversity Foundation, showing a commitment to tackling the problem in situ;
- The successful adoption of the dina and the foundation to now effectively apply the local law;
- The recognition within public and international fora of the efforts undertaken within the project to save the ploughshare tortoise, by the President of Madagascar;
- The first successful prosecutions for smugglers in Antananarivo, due to project collaborations leading to fourteen smugglers being imprisoned and receiving £ [REDACTED] in fines;
- The use of intelligence generated from investigation of online sales to enable the arrest of a dealer in SE Asia.
- The establishment of the chelonian task force and offer of investigator support to Madagascar in particular through the CITES system.

All these different results represent the first time that a coordinated response across the entire trade chain has started to have an active impact. It is now the belief of the partners that in future actions, the project team must focus on addressing the weaknesses identified within the

project (e.g. magistrate engagement, community awareness raising) and build on the strong results (e.g. national level engagement, international collaboration). It is with these achievements in mind, that we think that this project has moved conservation efforts towards achieving the impact statement.

We also believe that this is one of the only examples of IWT projects that are not focussed on the high-profile species (e.g. elephants, rhinos, tigers and pangolins) that has taken a strategic approach to addressing all aspects of the trade chain for a particular species. As such this represents an important contribution to global IWT efforts.

The project did not set out to make a direct impact on poverty alleviation and this was stated within the original proposal documents. However, it was a core component of a broader programme for the Baly Bay region that contains many poverty alleviation components, focussed mainly on improving food security, primary education and health. The next stage of this overall programme will focus on establishing a landscape level management plan enabling communities to benefit from development around the national park in return for securing the national park and the species within it.

4. Monitoring of assumptions

The risks and assumptions were identified as being the same at the output and outcome levels for this project. The first was around political stability in the country. This project was conceived at a time when the country was in the process of electing a new President that would end the period of 'political crisis' that began in 2009. Assumption 1 was upheld and the conditions in the country allowed project implementation. However national and regional government capacity has continued to decline during the project implementation period, which has limited the ability of authorities to engage effectively and also support efforts to stop poachers within BBNP and also tackle smuggling through the national airport. Therefore, while political stability enabled the project to go ahead, political and government capacity has had a major impact on the effectiveness of the project.

Similarly, Assumption 2 focussed on the safety of field staff and local communities. Again, we have witnessed a steady decline in security (as evidenced by the increases in criminality and the activity of bandits (dahalo) across the country), but no major worsening. Evidence for a continual decline comes through community feedback during Output 2 activities, where communities clearly identified ploughshare activities as very sensitive and were unwilling to talk about them. Also threats on community members by poachers were identified on separate occasions, including with weapons. Camera trap images and feedback from the patrollers also indicates that it is commonplace now for poachers to carry spears in the field with them. There was also a reported incident where a poacher offered a Durrell staff member a large sum of money to steal animals and indicated that it would be possible to secure a gun if that person wanted it. Therefore, the safety of our staff and community partners remains a concern and we closely monitor the situation through informal channels.

Efforts by MNP to implement SMART throughout their network were significantly delayed during the project implementation (Assumption 3). The project provided the largest training event on SMART for MNP in 2015. But there was a period where MNP signalled that it would go back to using MIST, a previous version. Since then MNP has returned to SMART and this is being rolled out throughout their network, but capacity within the MNP network for SMART implementation remains low.

During project implementation the Chinese mining company WISCO, indicated that it would leave the Baly Bay region citing interference from NGOs (Assumption 4). This was a major success as the impacts from the establishment of a mining interest in the region and the location of an access road through the National Park, would have had a major impact on the communities, park and tortoises. More recently the Government of Madagascar has signed up to the "One Belt One Road" strategy that sets out China's international development plans, which will see the establishment of a new deepwater port further up the coast in Narinda bay. This could pose an important future threat to the species.

As is clear from Section 3.1 concerning Output 4, the level of engagement from the legal and judicial sectors in Madagascar has been low and this assumption (5), was close to being broken. While there was no overt denial of support, the level of support was so low that it adversely affected implementation. Project activities were adapted (see Output 4 text) and the team used a different approach to identify and engage with a virtuous group of magistrates that would engage. This led to the first successful prosecution of a tortoise smuggler in 2016.

Assumption 6 presumes engagement of local communities in the management of BBNP. Again there was little engagement on their part as the creation of the Park had restricted their access to natural resources and steps have not been taken by MNP to improve their wellbeing or relationship to the park. The Park was created in a way that affected their movement and access in the area and this was never rectified. A long-standing objective led by MNP to improve the zonation of the national park, has yet to be completed. So, conditions have not improved for communities and there is limited support for the National Park.

Regional authorities did finally validate the dina (Assumption 7), however this was delayed and was also challenged by parties at the regional level, which again delayed the process. So this assumption remained viable, but as with the others general delays and low levels of engagement, caused problems to project implementation.

The project assumptions were monitored continuously during implementation. Most were based on informal feedback rather than quantifiable information. We had no assumption concerning the level of poaching threat, which was an oversight in the project. When the project was conceived, poaching was identified as severe but Durrell had recently achieved its reintroduction goal (100 animals) and there were signs of positive developments. The major poaching crisis came during implementation in 2015 and this was not tracked by the risks. Therefore, in developing a new proposal, we would prepare a complete risk assessment matrix that would enable us to more effectively track a wider range of risks.

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

The project specifically addresses Objective 2 of the IWT Challenge fund with efforts to improve patrolling and enforcement at the local (BBNP), regional (Mahajanga), national (Antananarivo) and international (SE Asia) levels. This is in line with Action 5 of the Kasane Statement and Action 10 (B-16-X) of the London Declaration, concerning improvements to capacity within relevant judicial and law enforcement agencies. Considerable effort was made to raise awareness within this project of the judiciary (Action XI of the London Declaration) as a means to securing prosecutions. Despite the challenges involved, the approach used to form a virtuous circle of magistrates in Output 4, achieved positive action towards this goal. In terms of law enforcement capacity, training provided by UK Border Force as well as continual support to community patrols and also capacity to use SMART, and ongoing training to Customs agents, have all contribution to this strategic priority (London Statement C-17-XIII)

An important output of this project was the partnership and the exchange of information and intelligence between partners (Kasane statement Action 12 and London Statement C-17-XVI), which directly led to the arrest and prosecution of a smuggler in Antananarivo and the planned seizure of animals in Indonesia.

Through co-funding project efforts in communities around BBNP focussed on improving livelihoods as a means to improving engagement with the park and protection of the ploughshare tortoises (London Statement D-18-XVIII and importantly XIX).

6. Impact on species in focus

The focal species was the ploughshare tortoise, which is the world's most threatened tortoise due to the pressures from dealers in SE Asia to sell animals to private breeders as pets.

Species status declined during the project, with three of the five sub-populations being effectively cleared during an intensive period of poaching pressure. This is evidenced by the increase in animals being seized at borders and offered for sale primarily online through Facebook and chatrooms.

The project increased the level of protection (based on patrol effort; Output 1 Indicators 1-4), increased regional capacity to monitor and report illegal trade (Output 3) and raised the profile internationally to focus attention on the plight of the species (Output 4). We do not have a counter-factual in place, and also survey efforts for the species are relatively crude given the difficulty in surveying the tortoises. But our expert estimation is that without the efforts of the project, the species would have gone from the wild completely. Certainly, the fourth and most important site, Beaboaly, would have been emptied and most of the animals in the largest western bloc would also have been removed. Therefore, it is reasonable to assert that the project enabled the partners to ensure the ploughshare tortoise remained in the wild and was not extirpated from the National Park.

7. Project support to poverty alleviation

The project did not set out the objectives to address poverty alleviation or to reduce poverty directly and this was recognised within the project proposal. The communities surrounding the national park (11 communities comprising over 1000 households) are central stakeholders in long-standing conservation efforts by the project leaders, Durrell Wildlife Conservation Trust, in the region. Durrell has engaged these communities since 2005 in rural development and livelihoods initiatives and these were running alongside, and were part of the co-funding, for this project. Equally community members were funded by this project to take an active role in the village patrol programme for the National Park. However, we view these payments as offsetting the costs of individuals not being able to use the same time to either fish or farm, rather than a payment to engage with the process.

During implementation of this project, rural development work supported by the Jersey Overseas Aid, enabled us to help over 500 farmers improve their productivity, add 8 irrigation pumps to the community, establish 50 demonstration plots to train farmers in using efficient farming practices, support over 2000 school children by building seven schools and renovating a further 21 schools. The project supported teacher training and income generation for the local parents' associations. Through a scholarship programme, the project supported 60 children to attend secondary schools and drove up primary education attainment across the community, as based on local exam results.

8. Consideration of gender equality issues

The project did not aim to have an impact on gender equality. The evaluation of community engagement in poaching led by Mavoa showed that poaching was male dominated and associated primarily with young men. Activities to improve engagement of women are led through the associated rural development project, supported by co-funding.

9. Lessons learnt

The following are some of the key lessons we learnt during the project:

1) A well-defined partnership structure where partners have clearly identified roles is a major contributor to project success.

One of the key benefits from the project was the formation of a supportive and stable partnership. Key to this was the over-arching need for the development of such a partnership to address the issue at hand and the way in which the different competencies within each organisation fed into the overall strategy of tackling the trade chain. This meant that while partners could support each other, they did not overlap or compete. For example, WCS was originally a training partner, providing a specific service, but through that they went on to leverage their global power to support policy efforts within the CITES forum. TRAFFIC were able to bring their regional expertise in SE Asia to build an understanding of the trade pathways and engage with regional law enforcement. Both Durrell and AVG developed a strong partnership addressing the issues surrounding the Malagasy judiciary.

2) In situations where widespread judicial barriers or failures are encountered it is more effective to engage a small number of particular individuals to act as role models than try to reach whole groups.

It is clear from project efforts that effectively engaging the whole regional magistrates court or whole groups of magistrates was not going to work or give the necessary results. The team therefore had to revise the project strategy to focus on engaging a very small number of known virtuous magistrates that then became the focus of project effort. The success of this approach was evidenced by the convictions secured towards project end.

3) Don't under-estimate the data management requirements associated with effective patrol management.

We aimed to make a rapid transition from a paper-based approach to data collection for the community patrols within BBNP to a fully automated approach using the SMART system. We focussed too heavily on providing the training and roll-out, without considering either the data management needs, the effort required to clear the backlog of paper reports, or the people management input required to support the teams. This approach was changed during project implementation following an internal review.

Durrell put more capacity into the team to manage teams and data and also focussed down on one site, the Beaboaly release site, to get SMART operational. This meant that we were not able to generate the level of analysis we had envisaged, but we are now moving to put the monitoring directly onto electronic devices to remove the need for a paper reporting stage at all.

4) For social marketing to be successful, there needs to be an extensive research phase, which can be costly and requires investment of time and money.

Social marketing is about behaviour change. For these mechanisms to be successful, i.e. to appropriate target the behaviours with communications or marketing that may enable a change, there has to be a strong understanding of the underlying pressures affecting people's lives and behavioural choices. The partners have to recognise that in developing this project, insufficient attention was placed on the research required upfront. While some of the work carried out by MaVoa to understand the scale of poaching at the community level and some of the reasons, would support a social marketing campaign, there was insufficient resource established to run the underlying research and then develop the appropriate responses. We recognise the importance of the approach and believe to be an important future action, but one that requires more work and development.

9.1 Monitoring and evaluation

Monitoring within the project was already established as the ploughshare tortoise programme was a longstanding initiative. Monitoring was in place to track changes in the wild population, as well as monitor patrols. Operational monitoring was provided through line management structures and assessed annually at project partner meetings and also at the annual Durrell Conservation Workshop held in Jersey.

During project implementation two major changes were made to activities. The first focussed on the management of the patrol teams and the SMART data, and the second focused on the engagement strategy with Malagasy magistrates.

The project was the first opportunity for partners to engage with the SMART programme and BBNP was one of the first sites to implement SMART-based monitoring. WCS provided the expert training. However, during implementation it became clear that the data management and resourcing requirements were higher than the project specified. Therefore, internal evaluations of the patrol programme and protection of wild animals took place in 2015, 2016 and early 2017, leading to a final evaluation report in May 2017. The evaluation identified the following issues:

- **Patrol management** – while there was now a permanent presence through the patrols, they are repetitive and predictable, and therefore not effective. We need to randomise patrol routes, conduct night patrols and integrate patrolling with automated camera traps.
- **Patrol capacity** – the composition of the patrols is sensitive – patrollers are often related to potential poachers. The evaluation found that there is a need to better incentivise and train patrollers. They need training in personal safety and patrol techniques. We need to improve conditions in the field and provide more feedback and support to the teams.
- **Patrol techniques** – we need to introduce the use of dogs into the patrol programmes and also lobby for the inclusion of permanent armed patrols. We also need to trial and roll-out the use of handheld electronic devices that will also automatically track the routes taken by patrollers (using GPS waypoints).
- **Patrol communications** – we need to ensure that patrollers have constant access to working mobile phones and they are able to contact us and local authorities to report any infractions.

Using these recommendations, changes were made during the project to the management structure of staff within the field site, by moving one individual and creating a new role to provide added focus and capacity. A role was also created in the Durrell country office in Antananarivo for a Data Manager, who in part was responsible for the coordination of the species monitoring and patrol monitoring data. At the same time the team focussed on ensuring that SMART was functional for the Beaboaly field site which was the main priority. From there it is possible for us to expand the programme. As post-project activities, the team is working with anti-poaching specialists to introduce new cameras and handheld devices, as well trial the use of dogs.

The second major revision was around engagement with the magistrates, as has been discussed elsewhere in this report. Again this change was made following internal discussions and the failure to effectively engage magistrates. The changes were made on recommendation of project partner AVG, who was also working with an additional network of Environmental lawyers, EAGLE Network, and these changes proved to be effective and successful.

9.2 Actions taken in response to annual report reviews

In most cases we tried to respond to comments provided in the annual reviews. Some of the time the speed with which events were changing in the field meant that the comments were no longer relevant or actionable. Annual reviews were presented to partners at the partner meetings held in Antananarivo, which were held at the start of the year.

The Year 1 annual report requested that the project complete some of the delayed project activities concerning the role out of SMART in Baly Bay, that more evidence was provided concerning the specific roles played by the partners and that the social marketing activities were advanced, and that measures of indirect benefits of poverty alleviation be provided. In response the project was able to continue the development of the SMART data entry methodology, although this had to be radically changed during Year 2 with additional recruitment to enhance capacity, and we were able to provide more input on the roles of different partners in the Year 2 annual report. However, the project was not able to advance the measures of poverty alleviation, which were not foreseen within the monitoring plan for the project or within the logframe, or the social marketing work.

The Year 2 annual review, reflected the change in circumstances in the field and the major increase in poaching pressure that occurred at the start of that year. It recognised that the project team was adapting its strategy and recommended that a new workplan be developed and submitted to IWT. Although this was not done, the project leader was in regular communication with IWT in terms of the political and security situation in the field, the challenges with threats to project staff and the financial problems faced by one of the project partners.

The project team started implemented an adapted strategy, especially in relation to the work with Magistrates and this proved effective within Year 3. Also the team started working with partners, especially WCS and Turtle Conservancy, identified within both annual reviews as having poorly defined roles, to secure a strong exit strategy and future sustainable funding, which is highlighted as a major achievement of this project as a whole.

10. Other comments on achievements not covered elsewhere

Given the change in the scale of pressure facing the tortoise during project implementation, the project enabled the team to make a number of changes as identified in the sections above. During project implementation a crisis response plan was developed and this was based on a conceptual model and subsequent theory of change, that sets out a zero-poaching strategy for the species. The strategy echoes the goal of this project and aims to provide a viable approach to ensuring the future safety of the species. The strategy has three core objectives: 1) Ensure the survival of remaining wild animals in BBNP, 2) Ensure the development of a genetically and physically safe captive breeding programme and 3) Remove poaching as the leading threat to the tortoise. Major responses within the strategy include the further development of the patrol programme and technological monitoring approaches; the fencing of the remaining core release site in Beaboaly (funded), the development of a new captive breeding centre to improve the genetic security of the programme (funded) and the development of national wildlife crime capacity in Madagascar, with policy and training support to key institutions to continue the work developed within the project.

At the end of the project, as identified in the logframe, we completed a revised Population Viability Analysis (PVA, included in project outputs). The PVA was extremely difficult to complete, as it is working with a species that has very long generation times and for which there is limited life history data; both of which are elements that can cause problems for the population models. The project team hired Dr. Gwen Maggs, who has worked with Durrell on species in Mauritius to lead the PVA process, but it was run with Durrell's Conservation Science team and the Madagascar field teams in collaboration. The report was also sent to external experts for consultation. The major findings were that in the long term, even the pre-crisis tortoise population was unlikely to have been viable over the next century. While past assessments had largely discounted the importance of juveniles, this PVA found that juvenile recruitment into the population was extremely important. This result will lead to a change in the protection strategy for the species. The PVA will also be submitted for publication in a peer reviewed journal.

11. Sustainability and legacy

The IWT project has had a high-profile international and nationally within Madagascar:

- The project work enabled the plight of the tortoise to be profiled by National Geographic, and by photographers Joel Satore and Tim Flach (providing the cover image for his 2017 book Endangered)
- The project partners raised the profile of the species at the CITES COP through an information paper and statements by the EU, German and US delegations, leading to the formation of the Chelonian Task Force.
- The project was visited by the Minister of Environment in Madagascar in 2016 and was supported by the UK and German Ambassadors.
- Durrell and the project partners were thanked by Hery Rajaonarimampianina, President of Madagascar, at a high-level roundtable meeting that took place at Kew Gardens in September 2017 with the UK Minister of Environment, Ms. Therese Coffey, who also recognised the work of the project.

The end of project workshop was held in Antananarivo with all national partners and key stakeholders, including representatives from the UK Embassy, US Embassy and USAID. The workshop was a major success because it led to the development of a shared statement formulated by the participants that expressed the views of those attending. The participants highlighted the following key points:

- The differences in numbers of people arrested and those convicted. They noted the high level of corruption in the judicial process.
- The difficulties of monitoring and securing the habitat with a long coastline and ready access.
- The overlapping and conflicting responsibilities of the different institutions responsible for securing airports and ports.
- the suggestion to take advantage of the existence of EU-funded work to bring national legislation into line with CITES international law.
- The desire to move beyond a simple "joint declaration" from the workshop and to enable a commitment of the institutions represented to establish a national network working against wildlife crime.

This last recommendation will be taken forward in future funding bids and is the focus of a collaboration between Durrell and WCS.

Within the project proposal, the exit strategy statement recognised that this project would not reach a locally sustainable endpoint, but that it would represent a major step forward focussing on institutional change. We believe that the project has enabled this and has raised the profile of the species and situation. It has led to significant post-project funding (two successful proposals to United States Fish and Wildlife Service, and one successful proposal to the Mohammed bin Zayed fund, as well as additional rural development funding from Jersey Overseas Aid, and also support gained from the Shared Resources Joint Solutions initiative), which ensures a sustainable future for the work started within the partnership.

12. IWT Challenge Fund Identity

The IWT Challenge Fund was recognised in all public and institutional communications where possible. Unfortunately much of the work associated with this project had to remain either confidential or at least not publicly communicated.

In terms of identifying the Challenge Fund as a discrete project, we associated all anti-poaching work in Madagascar or SE Asia with the project. We used the project title "Breaking the Chain" as a communication phrase for the anti-poaching work whether it was training patrollers, working with Customs agents, magistrates or trade partners in Indonesia. Therefore it was

possible to clearly identify this project within the broader ploughshare tortoise programme, which includes captive breeding activities, scientific research and rural development.

The following were major communications opportunities where the fund was recognised:

- WCS-led training of Madagascar National Parks and patrol staff in Baly Bay in 2015.
- UK Border Force training of Customs agents and government officials in Antananarivo in 2015
- Press releases associated with the seizure of animals in SE Asia in 2016
- The communications surrounding the CITES COP in 2016; including an article in National Geographic online, an information document prepared by project partners and formally submitted as part of the COP materials.
- Informal recognition by the President of Madagascar during a private meeting in 2016 at Chatham House.
- Formal recognition and thanks given by the President of Madagascar at a round table meeting hosted at Kew Gardens in September 2017.
- Within the text of the trade report prepared by TRAFFIC as part of the project.

It was not always possible to secure an appropriate recognition for the Challenge Fund in communications, for example the ploughshare crisis was profiled by the BBC Science Correspondent, David Shukman, for a piece on the BBC News and their website <http://www.bbc.co.uk/news/science-environment-33096261>. But they did not acknowledge the connection with the IWT Challenge Fund.

The project also enjoyed a close working relationship with the UK Ambassador to Madagascar, Tim Smart, who has been hugely supportive and a great advocate for the conservation work. He has profiled the project through the Embassy and has also intervened to support the project team when the security situation in Baly Bay was particularly bad.

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)

We are especially proud of a number of key achievements within the project:

- The establishment of the first SMART monitoring programme for a species in Madagascar
- The first training provided by UK Border Force to tackle wildlife smuggling in Madagascar.
- Completion of a new population viability analysis that will shape the future protection and breeding plans for the species.
- The development a strong partnership that has continued to collaborate and develop their relationship post-project
- The raising of the ploughshare tortoise crisis, and the scale of trade in chelonians at CITES COP16 in Johannesburg leading to the formation of the Chelonian Task Force.
- The first successful engagement of magistrates to tackle and prosecute wildlife smuggling in Madagascar.
- The successful prosecution of 14 poachers and smugglers and fines in excess of £ [REDACTED]

- The seizure and repatriation of tortoises (Radiated and Ploughshare) in Indonesia using existing national legislation that could establish a precedent for many future seizures of species that not otherwise protected in the region.
- Strong national recognition for the plight of the ploughshare tortoise through the Minister of Environment and President of Madagascar.
- Strong international recognition for the smuggling issues facing ploughshare tortoise through CITES, embassies of Germany and the UK in Madagascar, USAID.

14. Finance and administration

14.1 Project expenditure

Project spend (indicative)	2014/15 Grant (£)	2014/15 actual IWT Costs (£)	2015/16 Grant (£)	2015/16 actual IWT Costs (£)	2016/17 Grant (£)	2016/17 actual IWT Costs (£)	Total Original Grant (£)	Total actual Costs (£)	Comments (please explain significant variances)
Staff costs (see below)									
Consultancy costs									
Overhead Costs									
Travel and subsistence									
Operating Costs									
Capital items (see below)									
Others (see below)									
TOTAL									

Staff employed (Name and position)	Cost (£)
Hasina Randriamanampisoa, IWT Project manager	
Robert Bourou, patrol Coordinator	
Andrew Terry, project leader	
Chris Shepherd, Director, TRAFFIC SE ASIA	
Kanita Ouitavon, TRAFFIC SE ASIA	
Richard Moore, Informant network coordinator - Indonesia	
Julie Hanta Razafimanahaka, Director, MaVOA	
Roma Randrianavelona, research coordinator MAVOA	
Victor Rakotomboavonjy, field worker MAVOA	
Luciennot Raharimalala, field worker MAVOA	
TOTAL	

Capital items – description <i>Please detail what items were purchased with fund money, and where these will remain once the project finishes</i>	Capital items – cost (£)
Laptops - Madagascar	
GPS units for patrollers - Madagascar	
Tents for patrollers - Madagascar	
TOTAL	

Other items – description <i>Please provide a detailed breakdown for any single item over £1000</i>	Other items – cost (£)
Field consumables over the three years	
Patrollers uniforms	
TOTAL	

14.2 Additional funds or in-kind contributions secured

Please confirm the additional funds raised for this project. This will include funds indicated at application stage as confirmed or unconfirmed, as well as additional funds raised during the project lifetime. Please include all funds relevant to running the project as well as levered funds for additional work after the project ends.

Were any additional in-kind contributions secured during the project?

Source of funding for project lifetime	Total (£)
Turtle Conservation Fund	
Disney Worldwide Conservation Fund	
Jean Sainsbury	
Online Appeal	
International Angonoka Working Group – committed spend	
Durrell expedition donations	
British Chelonian Group	
TOTAL	

Source of funding for additional work after project lifetime	Total (£)
SeaWorld and Busch Garden Conservation Fund	
Turtle Conservation Fund	
US Fisheries and Wildlife Service?	
Disney Worldwide Conservation Fund?	
Shared Resources Joint Solutions	
Mohammed bin Zayed Fund for Conservation	
TOTAL	

14.3 Value for Money

Within this project value for money is best represented by the additionality added by the broad expertise and influence of the project partners, which extended the impact of the project. Specifically:

- AVG were able to feed in experience and activities from their partnership with the EAGLE Network and a project called ALARM, to address to the approach to securing successful prosecutions of smugglers. This resulted in the adoption of a new approach and the successful arrest and prosecution of smugglers in Antananarivo.
- Turtle Conservancy was able to bring their fundraising support and capability to coordinate emergency meetings in New York in early 2016 to develop a new emergency response strategy and the commitments from three additional supporters to provide \$ [REDACTED] of support to restoration efforts.
- WCS, originally had a limited role within the project, became an important partner and provided anti-poaching expertise from East Africa and SE Asia, as well as policy support from their headquarters in New York that fed directly into the CITES discussions at COP17. This has led to a new partnership and project development with WCS.

In terms of financial disbursements made within the project, all expenditure followed Durrell's internal financial controls and required multiple bids. Durrell closely monitored the payment of patrol members and field monitoring activities to ensure the appropriate spend of project finances. Generally, purchasing new equipment was maintained at a minimal level and it remains within

Madagascar where it is most effective. Travel was also minimised with most work taking place within the country or being carried out in SE Asia. There was considerable co-funding attached to the project and also supporting the work of TRAFFIC SEA in their regional assessments of markets, trade shows, online dealers and smuggling routes.

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: The illegal trade in Malagasy chelonians is halted through improved monitoring and the implementation of appropriate law enforcement at all levels throughout the trade chain both in Madagascar and internationally.			
Outcome: Poaching no longer seriously threatens the ploughshare tortoise as communities and MNP more effectively guard and monitor this species alongside improved law enforcement and cooperation along the trade chain.	<ol style="list-style-type: none"> 1. The wild ploughshare tortoise population is no longer seriously threatened by poaching as evidenced by a reduction in the population decline from 10% per annum currently to 5% per annum by Year 3 and down to 0% by Year 5 2. The level of poaching in BBNP is reduced as evidenced by the 40% reduction in the number of regional people involved in poaching by Year 3 compared to the baseline figures collected in Year 1 (current rough estimates indicate 60-70 people involved from local villages) 3. There is improved law enforcement in relation to wildlife crime offenders in Madagascar as evidenced by the proportion of successful arrests and convictions relating to ploughshare trafficking offences increases from 10% currently to 25% by the end of Year 3 4. The illegal trade chain in ploughshare tortoises is mapped leading to improved cooperation between those countries and relevant authorities affected as evidenced by presenting at the CITES COP17 in South Africa 2016 and the 	<ol style="list-style-type: none"> 1. Ploughshare population surveys; PVA analysis results; Project reports 2. Knowledge, Attitude and Practice (KAP) survey results and reports; social marketing reports; photographic reports; testimonials; media releases 3. Training workshop reports; Procedures for Customs officials produced; Procedures for investigating wildlife crime produced; Guidelines for sentencing offenders produced; conviction figures and reports from local and regional judiciary 4. CITES COP 17 presentation and report; Madagascar-Thailand bilateral MoU 	<ol style="list-style-type: none"> 1. No significant reduction in current level of political stability 2. Safety of field staff and local communities is maintained – no serious threats or incidents to staff and villagers 3. MNP implement SMART throughout the National Park network 4. Regional mining developments respect required national and international environmental legislation and social norms 5. Engagement from local and regional law enforcement and judiciary to tackle this issue 6. Engagement from local communities towards the goals of the National Park 7. Regional authorities validate Dina, including rules relating to ploughshare poaching

	organisation of a second Madagascar-Thailand bilateral meeting to discuss the illegal trade in Malagasy species and develop an MoU between the countries (the first meeting was held following CITES COP16 in Bangkok)		
Outputs: 1. Coverage and efficiency of community-park ranger patrols in the BBNP is improved through implementation and uptake of SMART system.	<p>1.1 1,440 hours per month spent patrolling BBNP currently, will increase to 2,000 by end Year 1, 2,500 by end Year 2 and 3,000 hours per month by end of Year 3.</p> <p>1.2 5280ha (33%) of ploughshare habitat in BBNP patrolled currently, will increase 7900ha (50%) by end Year 1, 11,060ha (70%) by end Year 2 and to 12,640ha (80%) by end of Year 3.</p> <p>1.3 27 people participating in monitoring currently will be trained and participating in SMART by the end of Year 1, increasing to 34 people by the end of Year 2 and to 40 people trained and participating in SMART monitoring by end of Year 3.</p> <p>1.4 Local village patrols currently from 11 of 28 main villages in Baly Bay, will increase to 16 by end Year 1, 22 by end Year 2 and 28 of 28 villages by end of Year 3.</p> <p>1.5 24 SMART patrol reports produced per Year during the course of the project.</p> <p>1.6 Quarterly SMART reports (4 per Year) to local law enforcement during the course of the project.</p>	Training records; SMART reports and project reports.	1. No significant reduction in current level of political stability 2. Safety of field staff and local communities is maintained – no serious threats or incidents to staff and villagers 3. MNP implement SMART throughout the National Park network 4. Regional mining developments respect required national and international environmental legislation and social norms 5. Engagement from local and regional law enforcement and judiciary to tackle this issue 6. Engagement from local communities towards the goals of the National Park 7. Regional authorities validate Dina, including rules relating to ploughshare poaching
2. The role of local community members in poaching and the incentives and barriers to poaching are identified and understood for at least 6 of the	2.1 6 logbooks established (1 per village) and monitored twice in Year 1, twice in Year 2 and twice in Year 3 to ascertain local involvement in poaching.	Survey results and reports	1. No significant reduction in current level of political stability 2. Safety of field staff and local communities is maintained – no serious

communities most closely identified with the problem.	<p>2.2 12 surveys conducted to ascertain incentives and barriers to poaching (1 per village in Year 1 and the same in Year 3).</p>		<p>threats or incidents to staff and villagers</p> <p>3. MNP implement SMART throughout the National Park network</p> <p>4. Regional mining developments respect required national and international environmental legislation and social norms</p> <p>5. Engagement from local and regional law enforcement and judiciary to tackle this issue</p> <p>6. Engagement from local communities towards the goals of the National Park</p> <p>7. Regional authorities validate Dina, including rules relating to ploughshare poaching</p>
3. The trade chain of illegal activity for ploughshare tortoises from Madagascar to Southeast Asia is understood and documented leading to greater national and international cooperation to tackle key individuals and areas within the smuggling process.	<p>3.1 At least 4 actionable intelligence reports are provided per year to enforcement authorities in Madagascar, Thailand, Indonesia and Malaysia.</p> <p>3.2 Bi-monthly TRAFFIC reports (6 per year) produced detailing intelligence on the trade chain.</p> <p>3.3 Peer-report produced, published and distributed detailing the trade chain from Madagascar to Southeast Asia by the end of Year 3.</p>	<p>Intelligence reports for authorities produced; Internal TRAFFIC reports; Trade chain report and peer-review paper produced.</p>	<p>1. No significant reduction in current level of political stability</p> <p>2. Safety of field staff and local communities is maintained – no serious threats or incidents to staff and villagers</p> <p>3. MNP implement SMART throughout the National Park network</p> <p>4. Regional mining developments respect required national and international environmental legislation and social norms</p> <p>5. Engagement from local and regional law enforcement and judiciary to tackle this issue</p> <p>6. Engagement from local communities towards the goals of the National Park</p> <p>7. Regional authorities validate Dina, including rules relating to ploughshare</p>

			poaching
4. Improved enforcement of laws along the trade chain through filling key skills gaps and raising awareness of poaching issue within priority institutions and increased support of local Dina governing ploughshare poaching.	<p>4.1 3 workshops conducted (1 per year) for Malagasy police, prosecutors and magistrates on the arresting, prosecuting and sentencing of wildlife crime offenders with sentencing guidelines for ploughshare trafficking offences agreed between magistrates and produced by end of Year 2</p> <p>4.2 At least 40 Customs Officials receive best-practice training in CITES enforcement at Antananarivo and Mahajanga airports in Madagascar and in Indonesia conducted through 2 workshops per Year in each country (12 workshops in total by end of Year 3).</p> <p>4.3 Knowledge of rules and laws and attitude towards responsibility for application of them is increased as demonstrated by instances of reporting and warning of law breakers increased by 15% by Year 2 and 30% by Year 3 compared to Year 1 as measured through KAP surveys.</p> <p>4.4 Social marketing campaign communication activities reach 300 people within the local communities by the end of Year 1, 600 by the end of Year 2 and 1000 by the end of Year 3.</p>	Training workshop reports; Procedures for investigating wildlife crime produced; Guidelines for sentencing offenders produced; conviction figures and reports; Procedures for Customs officials produced; Knowledge, Attitude and Practice (KAP) survey results and reports; social marketing reports; photographic reports; testimonials; media releases.	1. No significant reduction in current level of political stability 2. Safety of field staff and local communities is maintained – no serious threats or incidents to staff and villagers 3. MNP implement SMART throughout the National Park network 4. Regional mining developments respect required national and international environmental legislation and social norms 5. Engagement from local and regional law enforcement and judiciary to tackle this issue 6. Engagement from local communities towards the goals of the National Park 7. Regional authorities validate Dina, including rules relating to ploughshare poaching
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 Obtain SMART and train core staff in its use 1.2 Train additional MNP staff and local community members in SMART 1.3 Monthly monitoring of BBNP using combined community-ranger patrols carried out 1.4 SMART monitoring reports produced 1.5 SMART monitoring reports for local law enforcement agencies produced 1.6 Ploughshare tortoise population surveys conducted 1.7 Ploughshare tortoise population viability analysis (PVA) conducted 2.1 Hold Initial community meetings to explain project purpose and identify key informants (head of villages, elders, teachers, grocers) for interviews 2.2 Logbooks established in villages			

- 2.3 Logbook monitoring conducted
- 2.4 Community interviews conducted
- 2.5 Logbook and community interview reports produced
- 3.1 Indonesia based TRAFFIC Investigative officer hired
- 3.2 Intelligence reports for law enforcement agencies on ploughshare trade chain produced in Madagascar, Thailand and Indonesia
- 3.3 Internal TRAFFIC reports produced in Madagascar, Thailand and Indonesia
- 3.4 Peer-report produced and distributed
- 3.5 Attend and present the project at CITES COP 17 in South Africa 2016
- 3.6 Second bilateral meeting between Madagascar and Thailand to discuss illegal trade in Malagasy species is held
- 3.7 MoU between Madagascar and Thailand on addressing the illegal trade in Malagasy species is drawn up and signed
- 4.1 Local / regional judiciary workshops in Madagascar conducted
- 4.2 Local / regional judiciary workshop reports produced
- 4.3 Procedures for investigating wildlife crime in Madagascar produced
- 4.4 Magistrates workshops for sentencing guidelines in Madagascar conducted
- 4.5 Magistrates workshop reports produced
- 4.6 Sentencing guidelines for wildlife crime offenders in Madagascar produced
- 4.7 Customs officials CITES trade enforcement workshops conducted in Madagascar
- 4.8 Customs officials CITES trade enforcement workshops conducted in Indonesia
- 4.9 Customs officials workshop reports produced
- 4.10 Guidelines for Customs officials in Madagascar and Indonesia produced
- 4.11 Stakeholder workshops and consultation to advocate for and support Dina (local law) legalisation
- 4.12 Social marketing research, campaign design and testing: focus groups
- 4.13 Targeted social marketing campaign
- 4.14 Knowledge, Attitude and Practice surveys conducted and analysed
- 4.15 Social marketing campaign evaluated, identifying best practice and final report produced

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

Project summary	Measurable Indicators	Progress and Achievements
<p>Impact</p> <p>The illegal trade in Malagasy chelonians is halted through improved monitoring and the implementation of appropriate law enforcement at all levels throughout the trade chain both in Madagascar and internationally.</p>		
<p>Outcome</p> <p>Poaching no longer seriously threatens the ploughshare tortoise as communities and MNP more effectively guard and monitor this species alongside improved law enforcement and cooperation along the trade chain.</p>	<p>Indicator 1 : The wild ploughshare tortoise population is no longer seriously threatened by poaching as evidenced by a reduction in the population decline from 10% per annum currently to 5% per annum by Year 3.</p> <p>Indicator 2 : The level of poaching in BBNP is reduced as evidenced by the 40% reduction in the number of regional people involved in poaching by Year 3 compared to the baseline figures collected in Year 1 (current rough estimates indicate 60-70 people involved from local villages)</p> <p>Indicator 3 : There is improved law enforcement in relation to wildlife crime offenders in Madagascar as evidenced by the</p>	<ol style="list-style-type: none"> Despite achieving several outputs designed to reduce the levels of poaching, evidence continues to show it remains a serious threat to the ploughshare tortoise population. The discovery of the loss of two subpopulations prompted emergency action to relocate all wild tortoises to a central protected site and these efforts meant annual population surveys were postponed. Population decline is still estimated to be above 10% per annum and therefore this indicator has not been achieved. Research conducted with the local communities successfully identified incentives and barriers towards poaching and highlighted the need for improved communication and support to these villages. However, it was not possible to determine through this research how many regional people are involved in poaching, especially since the poaching crisis intensified. Whilst this project has addressed some of those incentives and increased the barriers, poaching is still occurring. Support through Ministry of Justice and processes implemented by project staff have led to an increase in the number of successful arrests and convictions related to ploughshare trafficking offences to X%. Improved enforcement has also resulted in every individual arrested being

	<p>proportion of successful arrests and convictions relating to ploughshare trafficking offences increases from 10% currently to 25% by the end of Year 3</p> <p>Indicator 4 : The illegal trade chain in ploughshare tortoises is mapped leading to R20 St2 Form Defra – June 2013 20 improved cooperation between those countries and relevant authorities affected as evidenced by presenting at the CITES COP17 in South Africa 2016 and the organisation of a second Madagascar-Thailand bilateral meeting to discuss the illegal trade in Malagasy species and develop an MoU between the countries (the first meeting was held following CITES COP16 in Bangkok)</p>	<p>taken into custody immediately and denied temporary release before trial.</p> <p>4. Smuggling routes from BBNP to SE Asia and China are known and mapped. New exit routes have been identified through the Freight terminal at the national airport and also by sea through the container port at Toamasina. Project staff presented the ploughshare as a case study to the CITES COP 17 and collaboration with the Government of Madagascar has resulted in CITES committing to send two investigative officers to assess how Madagascar can be better supported to fight illegal wildlife trade. International collaboration was strengthened as a CITES Task Force for Tortoises and Freshwater Turtles met in Singapore in April 2017 and included three representatives from Madagascar. The focus was to develop strategies to strengthen CITES implementation and law enforcement responses across all smuggling routes.</p>
Output 1. Coverage and efficiency of community-park ranger patrols in the BBNP is improved through implementation and uptake of SMART system.	<p>Indicator 1: 1,440 hours per month spent patrolling BBNP currently, will increase to 2,000 by end Year 1, 2,500 by end Year 2 and 3,000 hours per month by end of Year 3.</p> <p>Indicator 2: 5280ha (33%) of ploughshare habitat in BBNP patrolled currently, will increase 7900ha (50%) by end Year 1, 11,060ha (70%) by end Year 2 and to 12,640ha (80%) by</p>	<p>By the end of Year 2 patrollers were spending 2,300 hours per month patrolling the National Park. This increased to 2,444 hours per month by the end of Year 3 and represents a significant increase in the patrolling effort during the lifetime of the project. 128 signs of poaching have been reported from these patrols which have led to successful arrests and convictions of poachers. To reach the intended goal of 3000 hours per month we planned to establish an additional patrol base, however this was not feasible as not enough suitable candidates could be identified within the lifetime of the project.</p> <p>The area of ploughshare habitat in BBNP patrolled has increased to 9,200ha (60%) nearly doubling the area monitored since the beginning of this project. It has not been possible to expand the geographic area covered any further due to a lack of capacity and the planned additional patrol base. Project staff have focussed on improving efficiency of existing patrols by providing more equipment, technical support and supervision as</p>

	<p>end of Year 3.</p> <p>Indicator 3 : 27 people participating in monitoring currently will be trained and participating in SMART by the end of Year 1, increasing to 34 people by the end of Year 2 and to 40 people trained and participating in SMART monitoring by end of Year 3.</p> <p>Indicator 4 : Local village patrols currently from 11 of 28 main villages in Baly Bay, will increase to 16 by end Year 1, 22 by end Year 2 and 28 of 28 villages by end of Year 3.</p> <p>Indicator 5 : 24 SMART patrol reports produced per Year during the course of the project.</p> <p>Indicator 6 : Quarterly SMART reports (4 per Year) to local law enforcement during the course of the project.</p>	<p>well as improving communication, data flow and transparency before further expansion is considered.</p> <p>Training was provided by partners WCS to 44 people; 23 community patrollers and 21 NGO and core staff who now collect and process patrol data using SMART. A SMART Data Manager has been recruited to manage this process and works closely with the Chief of Baly Bay Sector at MNP to coordinate the data entry and production and dissemination of SMART reports.</p> <p>Village patrols are now from 14 main villages in Baly Bay. This has not increased as the poaching crisis meant staff capacity to work on increasing the patrols was limited and improving efficiency of existing patrols has taken priority.</p> <p>Activity towards indicators 5 and 6 was delayed as we underestimated the time and capacity required to develop the management of SMART data entry and production of reports. This issue is being addressed and two reports have been produced which show an increase in the area covered as well as patrol effort. Poaching signs were recorded in all sites visited which shows poaching is occurring across the whole of the National Park</p>
Activity 1.1. Obtain SMART and train core staff in its use		WCS provided training and support to Durrell, MNP and MEEF in the use of SMART. The software required to run the programme has been installed at the MNP office where a dedicated data manager for MNP is based.
Activity 1.2. Train additional MNP staff and local community members in SMART		12 MNP staff and 23 community patrollers were trained and use SMART
Activity 1.3. Monthly monitoring of BBNP using combined community-ranger patrols carried out		Completed.
Activity 1.4. SMART monitoring reports produced		2 SMART monitoring reports were produced and disseminated to project

		partners
Activity 1.5. SMART monitoring reports for local law enforcement agencies produced		Not completed. Further improvements to the SMART management system are needed to produce SMART reports which can be used by local law enforcement. Implementation of mixed patrols including military and local gendarmes ensured increased support to the patrols during the poaching crisis.
Activity 1.6. Ploughshare tortoise population surveys conducted		Three surveys were conducted indicating the loss of two sub-populations.
Activity 1.7. Ploughshare tortoise population viability analysis (PVA) conducted		Completed and report produced.
Output 2. The role of local community members in poaching and the incentives and barriers to poaching are identified and understood for at least 6 of the communities most closely identified with the problem.	<p>Indicator 1 : 6 logbooks established (1 per village) and monitored twice in Year 1, twice in Year 2 and twice in Year 3 to ascertain local involvement in poaching.</p> <p>Indicator 2 : 12 surveys conducted to ascertain incentives and barriers to poaching (1 per village in Year 1 and the same in Year 3).</p>	<p>Seven log books were established in Year 1, monitored twice in Year 2 and collected for analysis in Year 3. During this period, 919 sightings of wild harvested products were recorded including 21 records of individual ploughshare tortoises.</p> <p>During the first round of surveys MaVoa staff collected information from 854 households. Despite previous meetings to introduce the purpose of the surveys and explain the RRT technique anonymising responses, 14% of villagers approached refused to take part in the survey. Drawing on previous experience MaVoa staff concluded second interviews would reveal limited further information as the subject was too sensitive and changed their strategy to focus on 25 key informants identified and hosting 8 focus groups. This research successfully documented main incentives and barriers to poaching and highlighted the need for more investment and support for the local communities to enable them to assist partners in the battle against poaching and illegal wildlife trade.</p>
Activity 2.1. Hold Initial community meetings to explain project purpose and identify key informants (head of villages, elders, teachers, grocers) for interviews		MaVoa staff held 6 community meetings and visited 24 villages from 11 fokontany during which they introduced the project and identified 25 key informants which were interviewed as part of the research.
Activity 2.2 . Logbooks established in villages		Logbooks and logbook holders were established at seven villages between October 2014 and July 2016.
Activity 2.3. Logbook monitoring conducted		Logbooks were established in 2014, monitored twice in 2015 and collected in 2016.
Activity 2.4. Community interviews conducted		MaVoa staff completed one round of interviews visiting 854 households.

Activity 2.5. Logbook and community interview reports produced		A final report documenting the results from the seven logbook surveys, 854 household interviews, 8 focus group discussions and 25 key informants was produced. The results will be used as part of the development of a social marketing campaign targeting local communities.
Output 3. The trade chain of illegal activity for ploughshare tortoises from Madagascar to Southeast Asia is understood and documented leading to greater national and international cooperation to tackle key individuals and areas within the smuggling process.	<p>Indicator 1 : At least 4 actionable intelligence reports are provided per year to enforcement authorities in Madagascar, Thailand, Indonesia and Malaysia.</p> <p>Indicator 2 : Bi-monthly TRAFFIC reports (6 per year) produced detailing intelligence on the trade chain.</p> <p>Indicator 3 : Peer-report produced, published and distributed detailing the trade chain from Madagascar to Southeast Asia by the end of Year 3.</p>	<p>Durrell staff and TRAFFIC investigators produced 46 intelligence reports including 10 submitted to law enforcement. This resulted in 2 arrests and 8 tortoises (1 ploughshare and 7 radiated tortoises) tortoises being confiscated. We are still working to repatriate X tortoises which remain in Malaysia 330 tortoises (5 ploughshare and 325 radiated tortoises) which were seized in Malaysia.</p> <p>Working with the Investigative Officer based in Indonesia TRAFFIC produced continuous reports for partners. Continuous informal communication proved important in developing an effective relationship with law enforcement agencies concerning shipments of animals being smuggled.</p> <p>Summary report produced by TRAFFIC concerning the state of trade in Malagasy tortoises.</p>
Activity 3.1. Indonesia based TRAFFIC Investigative officer hired		Completed.
Activity 3.2. Intelligence reports for law enforcement agencies on ploughshare trade chain produced in Madagascar, Thailand and Indonesia		46 reports were submitted and 10 were submitted to law enforcement.
Activity 3.3. Internal TRAFFIC reports produced in Madagascar, Thailand and Indonesia		Completed.
Activity 3.4. Peer-report produced and distributed		A summary report concerning the state of trade in Malagasy tortoises has been produced and disseminated by TRAFFIC.
Activity 3.5. Attend and present the project at CITES COP 17 in South Africa 2016		Project Manager Hasina Randriamanampisoa attended the CITES COP 17 as a member of the Madagascar delegation and presented a position paper produced by partners raising the profile of the poaching crisis.
Activity 3.6. Second bilateral meeting between Madagascar and Thailand to discuss illegal trade in Malagasy species is held		A bilateral meeting was not possible. Alternatively, the CITES Task Force for Tortoises and Freshwater Turtles met in Singapore in April 2017 and included three representatives from Madagascar. The focus was to develop strategies to strengthen CITES implementation and law enforcement responses to combat illegal trade in tortoises and freshwater

		turtles.
Activity 3.7. MoU between Madagascar and Thailand on addressing the illegal trade in Malagasy species is drawn up and signed		Not completed. Substitute activities focussed on raising the international profile of the poaching crisis including a position paper produced by partners and submitted as an information article to the CITES COP 17 in South Africa.
Output 4. Improved enforcement of laws along the trade chain through filling key skills gaps and raising awareness of poaching issue within priority institutions and increased support of local Dina governing ploughshare poaching.	<p>Indicator 1: 3 workshops conducted (1 per year) for Malagasy police, prosecutors and magistrates on the arresting, prosecuting and sentencing of wildlife crime offenders with sentencing guidelines for ploughshare trafficking offences agreed between magistrates and produced by end of Year 2.</p> <p>Indicator 2: At least 40 Customs Officials receive best-practice training in CITES enforcement at Antananarivo and Mahajanga airports in Madagascar and in Indonesia conducted through 2 workshops per Year in each country (12 workshops in total by end of Year 3).</p> <p>Indicator 3 : Knowledge of rules and laws and attitude towards responsibility for application of them is increased as demonstrated by instances of reporting and warning of law breakers increased by 15% by Year 2 and 30% by Year 3 compared to Year 1 as measured through KAP surveys.</p> <p>Indicator 4 : Social marketing</p>	<p>In Year 1 a two-day training workshop was attended by 58 national and regional judiciary representatives including the deputy public prosecutor. Discussions focussed on Madagascar's flagship species and the importance of CITES and highlighted the issues of poaching, using the ploughshare tortoise as a high-profile case study. Due to internal problems within AVG a new strategy of direct communication with influential members of the judiciary, lobbying and follow up of individual cases with the Minister of Justice was implemented. This resulted in a positive change in the behaviour of the tribunals with suspension of temporary release from custody before trial and increased fines and prison sentences being given to those found guilty of wildlife crime.</p> <p>In total, 328 customs officials received training in Madagascar during workshops conducted by Durrell, UK Boarder Force, MEEF agents and CITES Madagascar officials. We were able to increase our target due to the successful collaboration with the internal Customs Training Department who recruited project staff to continue the training programme.</p> <p>Despite the validation and promotion of the local Dina which includes tortoise smuggling, this indicator was not achieved. The rise in poaching levels and intensity of activity on the ground from poachers has increased pressure on the communities. Results from the MaVoa surveys and logbooks (Output 2.) indicated that poaching is a very sensitive issue within the local communities who are reluctant to provide reports even when anonymous. The project recognises more protection and support for the local communities is needed.</p> <p>This indicator was not achieved as the required expertise were not</p>

	campaign communication activities reach 300 people within the local communities by the end of Year 1, 600 by the end of Year 2 and 1000 by the end of Year 3.	available locally and the cost of implementing a full scale social marketing campaign was under-estimated. The results from the MaVoa report show it is still important to deliver this indicator if the project is to gain support from the local communities and a separate project has been set up to pursue this.
Activity 4.1. Local / regional judiciary workshops in Madagascar conducted		A two-day workshop completed in the first year of the project delivered training to 58 national and regional judiciary representatives in Mahajanga including the deputy public prosecutor and magistrates from the tribunal, Malagasy police, gendarmes and customs officials.
Activity 4.2. Local / regional judiciary workshop reports produced		One workshop report produced.
Activity 4.3. Procedures for investigating wildlife crime in Madagascar produced		Not completed. This activity was blocked by local magistrates and limited capacity within AVG prevented follow up. Durrell is completing direct discussions with a few individually selected magistrates on how to support them in providing investigators with approved training.
Activity 4.4. Magistrates workshops for sentencing guidelines in Madagascar conducted		An alternative change in internal process of monitoring individual cases brought to trial has been successfully implemented by Durrell, AVG and the Minister for Justice. This partnership was formed through the committee meetings and has been successful in ensuring stricter sentencing in 100% of cases since implementation.
Activity 4.5. Magistrates workshop reports produced		Five individual cases of stricter sentencing as a result of changes in internal process have been documented. These five cases resulted in successful prosecution of 16 people including ten fines collected amounting to nearly £ [REDACTED] 14 people sentenced to spend a total of 38 years in prison, and two sentences which were appealed by the defence being successfully upheld by the Court.
Activity 4.6. Sentencing guidelines for wildlife crime offenders in Madagascar produced		Procedure guidelines for the internal process of following and reporting individual cases have been documented.
Activity 4.7. Customs officials CITES trade enforcement workshops conducted in Madagascar		Workshops were conducted and 328 customs officials received training from Durrell staff and Madagascar CITES officials.
Activity 4.8. Customs officials CITES trade enforcement workshops conducted in Indonesia		Delivered through co-funded activities by TRAFFIC SEA.
Activity 4.9. Customs officials workshop reports produced		Completed.

Activity 4.10. Guidelines for Customs officials in Madagascar and Indonesia produced	Not completed
Activity 4.11. Stakeholder workshops and consultation to advocate for and support Dina (local law) legalisation	13 workshops were completed and attended by 915 local villages promoting the Dina officially known as Dinan'i Boeny Miray Dia which was validated by the tribunal of Mahajanga.
Activity 4.12. Social marketing research, campaign design and testing: focus groups	Not completed due to a lack of skills available both within the partnership and the industry in Madagascar and an under-estimation of investment required.
Activity 4.13. Targeted social marketing campaign	Not completed as social marketing campaign was not achievable. Alternative awareness raising activities were conducted to maintain a positive presence within the communities. A focus was placed on working with communities through fire management groups. Funds were used to organise community teams to manage fire breaks around the national park and to hold communal meals afterwards as a means to engaging them about the poaching pressures in the park.
Activity 4.14. Knowledge, Attitude and Practice surveys conducted and analysed	Results from a detailed assessment of the local community's awareness and attitudes towards poaching are included in the report produced by MaVoa.
Activity 4.15. Social marketing campaign evaluated, identifying best practice and final report produced	Not completed.

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.	