Illegal (IWT) Fund Final Report — Wildlife Trade Challenge

IWT Challenge Fund Project Information

Project reference	IWT070
Project title	Saving lions by reducing trafficking in their parts
Country(ies)	Mozambique and South Africa
Lead Partner	Endangered Wildlife Trust (EWT)
Project Partner (s)	Peace Parks Foundation (PPF), Freeland, Mozambique Wildlife Alliance (MWA), National Administration of Conservation Areas (ANAC), Mozambique Customs, and South African National Parks (SanParks)
IWTCF grant value	£438,824.85
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Project Leader's name	Current: Dr Andrew Taylor (previous Dr David Mills)
Project website/blog/social media	ewt.org.za
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Project summary

The project addresses the illegal trade in African lion (*Panthera leo*) (hereafter lions) parts in the Great Limpopo Transfrontier Park (GLTP), specifically Limpopo and Kruger National Parks (the project area). Here, lions are threatened by targeted poisoning and snaring for body parts for local and international illegal trade. We have addressed these threats through:

1. Developing on the ground anti-poaching and poison response strategies;

2. Strengthening law enforcement capacity through targeted training; and,

3. Understanding and breaking the supply chains for lion products.

Mozambique's Limpopo National Park (LNP) and South Africa's Kruger National Park (KNP) form key components of one of Africa's most crucial lion conservation areas – the GLTP. Lions in this region of the GLTP are severely threatened by targeted poisoning and snaring for body parts for local and international illegal trade, resulting in declines in lion abundance of 50–68% in some protected areas. In one study area in LNP, between 2011–2018, 49% of the lions killed (n=51) were illegally killed for their body parts, with a significant increase in killing from 2011–2014. From 2014–2017, an average of 4.5 lions were killed yearly for their parts. Heads, faces, paws and bones were taken. The declining trend in lion numbers is range-wide, except for four southern African countries (Botswana, Namibia, South Africa and Zimbabwe). There was also a rise in number of poisoning events in western KNP in 2018–2019.

Lion prides in eastern KNP are contiguous with those in LNP and are likely to face the same precipitous decline their counterparts are undergoing just across the border. Illegal trade in lion parts affects at least nine communities in the Mozambique portion of the GLTP. There is evidence that this lion body part trafficking is part of an intricate illegal wildlife supply chain trafficking network from Africa to Asia.

Lion poaching is linked to other illegal activities like rhino, elephant and bushmeat poaching, and weapon and car smuggling. This has led to a deterioration of social systems and human well-being, including a significant increase in the importation of alcohol, plastic garbage, non-registered vehicles, and unlearned, often intoxicated drivers. Several schools have closed due to increases in violent youth gangs intimidating teachers. Poaching gangs hamper policing efforts and have blockaded roads, making parts of the parks off-limits to tourists, thus negatively affecting tourism revenue. Dismantling these networks will have social benefits to the communities, and through the increasing capacity of the lion protection unit from 4 rangers to 12 rangers, we will be increasing their skill sets, developing career paths and providing legal income to the rangers and their dependents.

Figure 1. Operational area indicating the project area for Lion monitoring and ranger patrol optimisation and the training locations for Mozambique Customs officials.

Project Partnerships

Peace Parks Foundation (PPF) – Were involved as partners from the outset and helped with the original project planning. As a co-manager of LNP, PPF has been a critical partner in this project and will ultimately be responsible for the sustainability of successful conservation interventions that allow Lions to persist and thrive in LNP. There was change in leadership of LNP during year 3 of the project, but this did not affect the running of the project. Changes were made at Senior Project Manager, Project Manager, and Counter Poaching Coordinator. The EWT continues to maintain a strong working relationship with PPF. PPF did not contribute to the writing of the final report.

Wildlife authorities (ANAC, SANParks) – The Adminstração Nacional das Áreas de Conservação (ANAC) in Mozambique and South African National Parks (SANParks) were critical partners. We could not operate within the protected areas without their buy-in and permission. We received permits from both wildlife authorities to conduct this work (Annex 4 and Annex 5).

SANParks has been instrumental in all Lion collaring in KNP by providing free veterinary and technical expertise. During the project, there were several changes in leadership in northern Kruger, including the departure of Tinyiko Golele as Regional Ranger. Don English took over her role and has taken a keen interest in the collared Lions. Following engagement by Andre Botha, EWT's Vultures for Africa Manager, and the person responsible for Activity 2 in this project, many more Section Rangers have taken an active interest in the project and have asked for access to our EarthRanger instance, so they can track live locations and deploy rangers accordingly.

Mozambique Customs Officials – The Wildlife in Trade Training Coordinator at the EWT established a relationship with the Mozambican Revenue Authority, specifically with Mr Herculano Cintura from the International Cooperation Directorate, Mr Jeronimo Mombe, the head of the Intelligence department in

the Southern Region, and Ms Ana Ribeiro da Cruz from the International Affairs Department of the Mozambique Revenue Authority. Mr Cintura acted as the liaison for the project and was our contact with the President of the Mozambique Revenue Authority, Dr Amélia Muendane. Dr Muendane gave formal permission for the online training to take place (see Annex 4, Supplementary material 3a and 3b).

As outlined in our change request of December 2021, which IWTC subsequently approved, we changed Output 3 (The capacity of customs law enforcement officials in Mozambique is enhanced though targeted training, enabling them to combat illegal trade in lion products through enhanced detection) from in-person training of Mozambican Customs officials to online training. This change was necessary due to travel and meeting restrictions imposed during COVID-19 in Mozambique and South Africa that made planning in-person training and travel very unpredictable.

Black Mambas – The Black Mambas were originally identified as a partner in this project because they are an all-female anti-poaching unit that could work with the LPUs to share experiences as women in this field. However, there involvement ceased after the project started, and we submitted a change request to this effect, which was approved. This change allowed senior female rangers from SANParks to perform this role. The continued closure of the Giriyondo Border Post has prevented us from moving forward on this. Unfortunately, due to the pandemic, the Giriyondo border post only reopened in July 2022, several months prior to the completion of the project due date. Furthermore, several staff changes within SANParks led to the main spokesperson to assist with the introduction between the Black Mambas and LPU teams was tasked to work in the southern part of the KNP, as the newly appointed regional ranger. This meant it was impossible for her to set time aside in her intense schedule.

Freeland – Freeland were part of the original project planning process whereby they provided expertise in researching trafficking and organised crime to help us understand how lion body parts are trafficked inside and across Mozambique's borders. Freeland co-developed the Analytical Centre of Excellence, which uses artificial intelligence-based software and open-source information to illuminate illicit supply chains and provide fast, professional analytical insights. Freeland completed their participation in this project in Y3Q1. They submitted a final logframe report at that time, which is included in this report. Freeland did not contribute to writing the final report.

Mozambique Wildlife Alliance (MWA) – MWA provided veterinary services throughout the project free of charge. They were extremely supportive of our work and are a highly collaborative organisation. They work with almost all conservation organisations throughout Mozambique and have close ties to ANAC. They, therefore, provided an important link between conservation practitioners. They plan to create a Mozambique Lion Forum that will bring experts together to guide Lion conservation in the country.

Panthera – After playing a key role in developing and submitting this proposal, Panthera decided to cease its work in LNP. At that time, the EWT was given the opportunity to revise the proposal to fill the gap left by Panthera's departure. The EWT hired an experienced lion field officer with more than a decade of experience, working in other countries such as Kenya, Botswana and Namibia on lion and lion human conflict issues. The original proposal was revised, and the financial change request was approved prior to the signing of this grant contract.

Only the Endangered Wildlife Trust team members contributed towards writing the final report.

Project Achievements

Outputs

Output 1. By December of Year 3, lion poaching for parts has been reduced by >80% in the Mozambican GLTP, resulting in a measurable increase in wild lion abundance and range.

The originally proposed outputs of the project were measurable through the various activities that we reported. Collecting data for ground truthing to support these outputs was crucial to ascertain the previous levels of poaching and illegal trade. However, the anticipated results were not as practical as expected due to a few unexpected problems, such as Covid 19 restricting the initial first year of the fieldwork (reported this issue during the year one report). The data compiled through camera trap & call-up surveys, random baiting sites, spoor sampling, and ranger reports all indicated that the poaching of lions has decreased since 2020. In stating this, we acknowledge that the poaching of lions may have subsided due to several activities that were not part of the proposed outputs due to these activities being done by other stakeholders within the park. These activities include the relocation of several villages stationed within the

park's borders that were known to participate in the illegal hunting and poaching of all wildlife and the removal and resettlement of livestock out of the park, therefore reducing human-wildlife conflict. Through our expected activities, we can confidently state that lion density in areas of the national park is stable and possibly even increasing and will require several years of constant wildlife management, the intervention of potentially high-risk conflict between wildlife and people, and strict patrol optimization of rangers in identified lion hotspot zones.

Local Mozambique legislation regarding the darting of lions changed in 2020, making it impossible for non-residents to dart and subdue lions even with the appropriate qualifications. This action prevented the researchers from performing on a higher level of collaring lions due to the logistical complications and complexities of getting a qualified local veterinarian on site. This did set the project back significantly and was addressed during the 2022 reporting period. The general lion population required time to settle and adjust after the severe poaching before the project commencement date. Since 2020, the lion population has increased substantially, especially in the southern parts of the park since local authorities introduced a more stringent approach. Through spoor, audio, visual, camera trap image, and baiting site evidence, we were able to determine that, at present, the total number of lions in comparison to historical data does indicate an increasing population. Historically, the park occupied a large scale of livestock which supplied the lions with a large portion of their annual diet, increasing in conflict with herders and villages, eventually leading to retaliation by people. Removing most of the livestock and resettling of the people outside the park has shown the recolonizing of wildlife in these abandoned settlements.

It is important to acknowledge that the central and northern areas of the park, which border the KNP, are still vulnerable to poaching and poisoning due to the park's size and limited ranger capacity. However, preliminary data suggest that by recruiting additional rangers, providing comprehensive training, and empowering them, there is a potential to mitigate these challenges. Specifically, when rangers are strategically stationed at specific locations for extended periods, there is evidence to suggest a decrease in incidents of poaching and poisoning.

Throughout the project duration, the lion protection unit and other rangers have effectively safeguarded the resident pride in the southern regions of the park. Since 2021, the female lion (5472aka XPL005) has been closely monitored using a GPS collar. Notably, she successfully raised two male and two female offspring, and initial data suggests that these young lions have integrated with another group of young lions originating from the neighbouring KNP. In early 2023, the female lion was recollared with a new collar, enabling us to locate the adult male lion that accompanies her. Subsequently, she has given birth to a new litter (January 2023) and GPS collar data have confirmed the presence of a den site. A helicopter will be employed for aerial surveillance to observe the cubs once they are old enough.

Indicator 1.1: At least 40 PPF rangers receive annual refresher training through the Southern African Wildlife College (SAWC) by the end of Year 3.

Achievement: This was completed and a total of 107 rangers received refresher training through SAWC in February 2022. This training was advanced ranger training which focused on detainee handling and rules of engagement. Unfortunately, we are unable to provide course material as this is owned by SAWC but more information on SAWC can be found at: https://wildlifecollege.org.za/field-ranger-training/

Indicator 1.2: Number of lion protection units (comprising of 4 members each) with capacity to prevent and detect lion poaching in the GLTP has been increased from 1 unit to 3 by the end of Year 3.

Achievement: Through Peace Parks, the number of lion protection units increased from 1 to 2. We do acknowledge that this was only partially achieved.

Indicator 1.3: All members (12) of the lion protection units have the skills and knowledge necessary to prevent and detect lion poaching in the GLTP, through targeted refresher training and other value-added training (e.g., SMART) by the end of year 3.

Achievement: Capacity building for the rangers was really encouraged and something we prioritized. We were able to provide targeted refresher training to 107 rangers – 8 of which are lion protection unit rangers. We provided training on a complex data gathering software called GAIA which we are proud to say still being used by the team in LNP. This has ensured meaningful data are collected and stored within a database.

Indicator 1.4: A knowledge exchange is undertaken with two senior Black Mambas with communities surrounding the project area and female rangers to inspire more women from local communities to pursue a career as a ranger.

Achievement: This was not achieved as the Black Mambas were not part of the project after implementation started.

Indicator 1.5: Job creation results in 12 households benefiting from increased basic livelihood conditions, which include education, health, household needs (such as energy and drinking water). The extent to which this will be achieved depends on existing infrastructure, which will be detailed in a project situational analysis developed by the end of Year 1.

Achievement: Eight lion protection unit rangers were employed through PPF, therefore benefitting 8 households.

Indicator 1.6: At least 8 lion tracking collars are deployed and providing daily GPS coordinates by the end of year 2

Achievement: We successfully fitted tracking collars on 2 female and 3 adult male lions within LNP. These collars are still active and providing daily data. This has enabled us to monitor their movements closely and provides us with information on where to send patrols to monitor them directly. This has optimized patrols specifically for lion protection.

Indicator 1.7: At least one territory of a resident pride extirpated in Mozambique through poaching is naturally recolonised by dispersing animals from contiguous areas by the end Year 3

Achievement: Through the project we were able to increase safe space and habitat available to LNPs lions. Masingir Velho village (human and livestock) was resettled out of LNP and as a result, lions have been able to successfully recolonize this area for the past three years. These lions are now safer from potential illegal poaching activities and the risk of human-wildlife conflict has been reduced.

Indicator 1.8: The survival rate of collared lions increases to >60% per annum (see Q16) by the end Year 3

Achievement: Through the optimization of ranger patrols guided by data provided by the collars, collared lions have had a survival rate of 100%. With continued and routine ranger presence around these lions, it has potentially deterred poaching activity in their home range.

Output 2. The impact of poisoning on lions and other wildlife is reduced through effective proactive and reactive response strategies.

Through the data on poaching incidents, collected through the rangers while on patrol, it is evident that poaching of all mammal species has declined since 2019. This is illustrated in the graph showing the number of poached animals since 2014. We attribute these declines to the increased number of patrol teams (and therefore patrols) across LNP. These patrols deterred the movement of people moving within the park.

The primary camera trap analysis produced robust data on human activity through the park's Intensive Protection Zone (IPZ) section, which is intensely monitored and protected by the anti-poaching teams. Through these data, we identified specific routes and preferred areas that local people use when migrating between the two countries and areas that are most suitable and used by poachers. These areas were cross-referenced by historical poison data and confirmed that these zones require additional manpower on the ground to combat poaching and poisoning. Poachers use the safety umbrella provided by the park management to local villages where they can utilize specific areas around their village to harvest fish. This cover provided them free movement under the pretence of fishing, but they used this to set snares and listen for lions nearby at night. Most of the people moving within the park's borders generally use riverine or drainage systems to move between zones, thus experiencing a higher contact level with animals utilizing the same systems for water and food sources. Rangers have since patrolled these areas on a higher scale and can deter some movement of locals, however, more rangers are required to make a more significant impact on arrests, encounters, etc. All rangers employed at the time were trained during 2022 by several EWT officers on poison identification, site management, and basic handling of poisoned animals.

Indicator 2.1 At least 25 law enforcement officials operating in the GLTP have successfully completed one 2-day PIT course by the end of Year 1.

Achievement: 417 law enforcement officials were trained and capacitated to process poison crime scenes in the GLTP.

Date	Location	Female	Male	Total
06-10.06.2021	Limpopo National Park, Mozambique	0	44	44
12-13.06.2021	Banhine National Park, Mozambique	1	24	25
05-28.10.2021 Re-training	Kruger National Park, South Africa	42	228	270
09-10.10.2021	Zinave National Park, Mozambique	0	20	20
19-26.01.2022	Gonarezhou National Park, Zimbabwe	4	54	58
		47	369	417

Indicator 2.2 At least one poison reaction kit and aide memoire per trainee distributed at the end of each training intervention to provide additional support post training by the end of Year 1.

Progress: The following poisoning kits were distributed to ranger sections where training was completed.

Location	Wildlife Poisoning Response Kits	Wildlife Poisoning Aide Memoires issued	Feedback on whether these kits were used
Limpopo National Park, Mozambique	6	44 (Portuguese)	Yes – We know of at least one kit that was used on a dead lion.
Banhine National Park	4	25 (Portuguese)	No feedback received
Kruger National Park	56	27	Yes – At least four kits have been used on vulture poisoning incidents.
Zinave National Park	4	20	No feedback received
Gonarezhou National Park	6	60	Yes – we have received feedback that these
	76	176	

- Wildlife Poisoning Response Kits were not issued to individuals, but rather to ranger section/pickets and issue and replenishment is managed by the relevant area manager/section ranger.
- The KNP preferred to only have aide memoires issued to section rangers, sergeants, and corporals in each section rather than to every learner who participated in training, hence the lower number of these issued there.
- These kits have been used in Gonarezhou NP in a recent poisoning incident in June 2023 and multiple times in KNP.

Indicator 2.3 A Poison Response Strategy which facilitates rapid response and effective management of poisoning events involving all relevant role-players has been drafted by the end of Year 1.

Achievement: The drafting of a Wildlife Poisoning Response Strategy was conducted in workshops for each of the areas. The drafting and implementation of plans remained the responsibility of park management in each of the project areas – the EWT is not mandated to complete these strategies. To date, the only park that has finalised and approved the strategy is Gonarezhou (and they have implemented it). KNP has circulated their strategy internally for comment and is awaiting sign-off from SANParks management – we are not aware that the park has finalised the strategy.

Indicator 2.4 Stakeholder approval for the draft PRS is secured by the end of Year 2.

Progress: In process, but this was delayed due to Covid restrictions and administrative processes that limited engagement in this regard.

Indicator 2.5 Within one year of approval, the PRS has been implemented for at least one poisoning incident.

Progress: There were 10 poisoning incidents in the GLTFCA during 2021 and the lower mortalities depicted in Figure 7 supports the fact that, due to better preparedness and training, response to such

incidents have improved resulting in fewer mortalities during such events. The draft PRS was utilised during these poisoning incidents. Gonarezhou experienced one poisoning incident during June 2023 and implemented the PRS when dealing with that.

Indicator 2.6 Establish baseline poisoning mortality for the border region between Kruger NP and Limpopo NP and compare this to established recent baselines from adjacent areas in Limpopo NP by the end of Year 1. Reduce poisoning mortality by 60% against these baselines by the end of Year 3.

Progress: Data on known incidents have been captured on the African Wildlife Poisoning database and figure 9 (see annex 4) reflects the number of incidents and mortalities experienced in the project area since 2015 to the present. These data are also shared with the IUCN SSC Cat Specialist Group's African Lion Database. Based on these data, the number of poisoning incidents in 2021 have reduced by almost 40% from 2020 while wildlife poisoning mortalities have reduced by 76% between 2020 and 2021.

Output 3. The capacity of customs law enforcement officials is enhanced though targeted training, enabling them to combat illegal trade in lion products through enhanced detection.

Output 3 was partially achieved. The transition from in-person to online training proved effective in terms of practical training implementation, with some caveats that are discussed in the lessons learned. Working closely with Mozambique customs, we identified 60 Mozambique Customs officials as planned, and successfully signed up 56 for the training. This required a long process of communicating with Mozambique spanning nearly two years and is documented in detail in Annex 2. However, despite signing up 56 customs officials, only 19 officials fully engaged with the online system and participated meaningfully in the training. Due to the length of time it took to set the training up (partly due to getting the training materials translated into Portuguese), the training only started in mid-March 2023, and has only recently been completed. Despite the lower than hoped for numbers, we are encouraged to note the active engagement of the 19 officials to complete the training. This indicates a strong commitment by them to acquiring the necessary knowledge and skills to detect and combat illegal wildlife trade effectively. Participants maintained regular contact with the EWT training coordinator between March and June 2023 and some have provided feedback that they have shared their new knowledge with customs colleagues. Regarding the officials we attempted to contact but who never responded, we have no way to know what the reasons were.

Regarding the training materials, development of these was completed by species and subject matter experts creating voice-over presentations relevant to theoretical aspects of the topic. The practical component of the training was filmed and produced by a film company with the experts explaining how to identify threatened species affected by illegal trade using live or model specimens. Most presentations and all films were available in Portuguese, either in the form of subtitles or spoken Portuguese, depending on who developed the materials. The course content was uploaded on the EWTs TalentLMS Platform in December 2022, and the training officially rolled out at the beginning of March 2022. The required duration of completing the training was equivalent to the 4-day in-person training of a total of 32 hours (8hrs per day x 4 days). However, the online training was opened for a period of three months (01 March – 30 June 2023) to allow the Mozambique Customs Officials to complete the course at their own time and pace to include flexibility due to their vigorous schedules. Participants were also provided with airtime to convert to data to access the materials online, but the Learning Management System (LMS) was also available for the participants to view the materials and work offline.

The successful completion of the training by officials reflects positive changes in their capacity as customs law enforcement officials. However, there were challenges encountered that contributed towards the slow delivery of the online training and the lower than hoped for number of participants. The main challenges were the language barrier and relatively poor access to internet that made communications complicated (Annex 4, Supplementary material 3c). Despite these difficulties, the participation of 19 customs officials was still positive. In hindsight, the assumption of full participation by all 60 customs officials was too ambitious. In an attempt to overcome these challenges at the time, the training coordinator proactively engaged with the registered participants, providing support and guidance throughout the training process through various methods of communication: email, TalentLMS and a WhatsApp group (Annex 4, Supplementary material 4d). This approach fostered a positive learning environment and encouraged active participation from the officials.

Indicator 3.1 At least 60 customs officials from Mozambique and the Mozambique/South Africa border (~80% are to be Mozambicans) attend one of four FSITP by the end of Year 2

While we did not meet the target of 60 customs officials from Mozambique attending or participating in the online training, we made significant progress in engaging and training a dedicated group. Out of the 56 registered users on the EWT TalentLMS Platform, we successfully trained and actively collaborated with 19 officials, representing 34% of the registered participants (Annex 4, Supplementary material 3e). Their consistent engagement through email, the EWT TalentLMS Platform, and the WhatsApp group chat has been commendable. Although communication with the remaining 37 officials could not be established initially, we would like to enhance our outreach efforts to ensure their involvement in future training initiatives. While there were challenges along the way, we remain focused on building a strong and empowered community of Mozambique customs officials who are dedicated to combating wildlife contraband. We appreciate the ongoing support and participation of the officials who have actively engaged with us, and we will continue to strive towards achieving our training objectives.

Indicator 3.2 50% of the participants can provide a list of at least two law enforcement officials that the participant has trained using the train-the-trainer approach by the end of Year 3

Some participants have mentioned that they are educating their fellow colleagues and department about the content they have learnt during the training course.
- Participant 1: "Bom dia, Sim, eu sempre compartilho todas as matérias que são aqui aprendidas, com todos os meus colegas do meu local de trabalho. Isso ajuda o dia a dia das nossas actividades no controlo e fiscalização aduaneira."
- Participant 2: "Desde a início da formação que tenho partilhado o conhecimento que vou adquirindo nesta formação."

Translation:
- Participant 1: "Good morning, Yes, I always share all the subjects that are learned here, with all my colleagues in my workplace. This helps the day-to-day running of our customs control and supervision activities."
- Participant 2: "Since the beginning of the training, I have shared the knowledge that I am acquiring in this training."

Indicator 3.3 At least a 10% increase in seizures of wildlife contraband across the GLTP is recorded against baseline historical seizure data by the end of Year 3

We could not achieve this indicator at the time of submission of this report. Since the customs officials have only just completed the training, we are not in a position to measure this.

Output 4: Transnational crime syndicates are disrupted through targeted, well-planned investigations aided by supply chain mapping

Indicator 4.1 Law enforcement agencies (LEAs) use the information and analysis of supply chain mapping to identify at least one international trafficking syndicate and be in a position to arrest at least three high-level traffickers for use in prosecution by the end of Year 3;

This was completed. During Freeland's collection and analysis of intelligence, links between a known wildlife trafficker, Simon Ernesto Valoyi, who is based between Massinger, Mozambique, and Phalaborwa, South Africa (known strongholds for wildlife traffickers), and a known narcotics trafficker, Mohamed Bashir Suleman, located in Maputo, Mozambique, were investigated by Freeland in conjunction with ANAC.

Indicator 4.2 LEAs use the information from the analysis of the supply chain to identify and seize assets *from at least three high-level traffickers by the end of Year 3;*

This was partially completed. As outlined in the annual report for Y2, Tran Kieu Trang was arrested at Maputo International Airport during the project period. Freeland was instrumental in the arrest of Boonchai Bach and the seizure of $11 million in assets. They have been working closely with ANAC to facilitate cross-border investigations, map supply chains, and identify syndicate members.

Indicator 4.3 LEA investigators collaborate and plan at least one cross-continental joint investigation with common aims/goals using information from 'mapping the supply chain' by the end of Year 3

This was completed. During the BCWG workshop, specific high profile wildlife criminal cases and syndicate members were discussed by Lusaka Agreement Task Force (LATF), South African, and

Mozambique authorities. Three well-planned collaborative cross-border investigative strategies were formulated with critical information and intelligence shared by the BCWG. Tasks and responsibilities for South African and Mozambique law enforcement were agreed, and a memorandum was drafted by Lusaka Agreement Task Force and submitted to the BCWG members.

On 14 June, Freeland delivered a detailed mapping presentation to ANAC and Mozambican law enforcement that summarised the intelligence, trade routes, and linkages discovered during their work on this project. Freeland's involvement is now complete, and they will continue to work with Mozambican law enforcement authorities and ANAC in their own capacity.

Outcome

Mozambique and the Greater Limpopo Transfrontier Park (GLTP) have improved capacity to detect and prevent illegal killing of lions and trade in their parts across the entire trade chain, from poaching to international trafficking

Outcome indicator 1: The number of newly established lion protection units is increased by 2 in the GLTP.

This outcome was partially achieved. We were not able to increase the total number of protection units to three due to lack of military and anti-poaching training which is required by Peace Park Foundation. However, one additional team was trained and there are now a total of two teams. Removing already trained normal rangers from the current unit to train up a third lion protection unit was not an option for Peace Parks since it was already very difficult to find qualified rangers for general ranger duties. This meant that PPF would need to advertise positions available, retrain these individuals then only add them to their roster which was not possible during the short duration of the project.

Outcome indicator 2: At least 25 law enforcement officials have skills and resources to respond to poisoning in the GLTP

This outcome was achieved, with 407 rangers being trained in total. Over the course of several weeks, poison intervention officers from the EWT successfully trained field rangers from various locations within the LNP. The training took place over several days, with one group completing their qualifications before the next group arrived. Additionally, a realistic incident simulation was created to allow each candidate to actively participate in real-time scenarios. In addition, 107 rangers received refresher training on detainee handling and rules of engagement during 2022 by the South African Wildlife Campus.

Detecting and preventing wildlife poaching and combating the illegal wildlife trade is an ongoing endeavour that demands continuous training and capacity building for staff, addressing poverty issues, and gaining a comprehensive understanding of the multifaceted nature of the illegal wildlife trade. Additionally, it is crucial to identify the factors driving the fluctuations in demand. The project achieved many of its output indicators, highlighting unforeseen challenges and limitations beyond our control. Through targeted training, rangers, lion protection teams, and customs officials were equipped to streamline their efforts, enhance their understanding of the issues at hand, and effectively address them. However, the project faced inherent challenges due to high staff turnover and political changes, as it required all stakeholders' active participation and commitment. Establishing consistent activity within the lion protection unit took considerable time due to historical complications and conflicts between Peace Park Foundation and the independent researcher which resulted in their non-involvement in managing the unit. The absence of the EWT senior lion officer when he was required to train and assist in the entire GLTFCA meant that the lion team reverted to regular ranger patrols and lacked autonomy. However, this issue has been resolved with the appointment of a field officer, an authorized driver, and the appropriate team. Moreover, the team received successful training in essential areas such as lion baiting, lion call-ups, camera trap placement, the use of telemetry equipment, as well as the safe handling and management of poison sites.

By identifying and recognising historical data concerning areas prone to wildlife-human conflicts, we effectively utilized this information to implement heightened monitoring and targeted anti-poaching measures. These endeavours were complemented by our initiatives to locate and collar lions, significantly contributing to better comprehension of their population dynamics and habitat usage. Compelling evidence demonstrates that, due to the concentrated efforts of the anti-poaching teams, instances of poison stations have considerably diminished in a specific region within the park known as Massigir Velho, a resettled village with a history of poaching (Annex 4, Figure 6).

Outcome indicator 3: 'At least 60 customs officials on the border between South Africa and Mozambique have the skills to detect the smuggling of lion parts into and out of Mozambique'.

This outcome was only partially achieved. Nineteen of the hoped for 60 Mozambican customs officials went through the online training course, including the assignments, and have demonstrated increased knowledge and skills to detect the smuggling of lion parts (Annex 4, Supplementary material 3f). The reasons for not fully achieving this project outcome indicator were due to several limitations. The challenges encountered during the implementation of the training programme significantly impacted the achievement of desired outcomes. These challenges included the language barrier, difficulties in locating individuals, a lack of response, and data issues. These factors hindered the ability to document and observe any significant increases in wildlife seizure rates within the given timeframe. It is important to note that addressing wildlife trafficking requires sustained efforts over an extended period. As the training was rolled out towards the end of the project, it limited the opportunity to report on this outcome. However, ongoing monitoring and evaluation, including feedback from customs officials who have completed the training, will be conducted to capture any seizures that occur after their training, providing a more comprehensive assessment of the training program's impact (Annex 4, Supplementary material 3g).

Outcome indicator 4: 'At least one international trafficking syndicate, operating in or through Mozambique is disrupted through the seizure of its assets, and the potential arrest of at least three of its members.'

Facilitated by Freeland and conducted by Thailand's anti-money laundering authorities, an operation on March 12, 2021, targeting Thai citizen Boonchai Bach, was conducted whereby 330 million-baht ($11 million) worth of assets were seized from the trafficker. The syndicate is responsible for having trafficked thousands of tonnes of ivory, rhino horn, lion parts and other endangered species from Africa to Vietnam, Thailand and China. Since only one member was arrested, this indicator was not fully achieved. However, there are several more syndicates that are under investigation by both Mozambican and SE Asian Law Enforcement Agencies and Freeland. Though their involvement in this project has ended, the work to disrupt syndicates and arrest their members continues.

Monitoring of assumptions

Throughout the project, both outcome (results of activities) and output (activities) level assumptions were monitored. Monitoring assumptions is essential to project management to ensure that the project's activities and expected results align with the initial assumptions made during the planning phase. We compared ranger patrol data from historical data to present data, resulting in a better understanding and monitoring of ranger patrols in areas of higher concern.

Outcome level assumptions, which are the expected changes or impacts resulting from the project, were continuously tracked and assessed. The project team monitored whether the desired outcomes were being achieved and evaluated any discrepancies or deviations from the initial assumptions. This monitoring process helped identify potential risks, challenges, or unforeseen circumstances that could affect the project's ability to deliver the intended outcomes.

Similarly, output level assumptions were also closely monitored, which are the anticipated deliverables or results of specific project activities. The project team regularly assessed whether the planned outputs were being produced as intended and evaluated any variations or discrepancies. By monitoring output level assumptions, the team could identify any issues or adjustments needed to ensure the project's activities were on track and aligned with the expected outputs.

Please see Annex 4, Figure 7 and 8 for a visual graph on the changes of patrols, man hours and snares during the project time frame

3. The capacity of customs law enforcement officials is enhanced though targeted training, enabling them to combat illegal trade in lion products through enhanced detection.	
Important Assumptions	**Details of changes in assumptions, how did the project meet or manage these?**

Enforcement officials are available and willing to participate in the training intervention.	Our Mozambique customs point of contact provided the necessary number of names for participants, but only 19 engaged with the training. So this assumption was only 33% met, with the other 66% not participating in the training. The reasons remain unknown – despite multiple attempts to contact them (through three different sources, including the customs dept.) the remaining people did not respond to the invitation.
Trafficking of lion parts is done through official ports.	This remains an assumption that was not put to the test. We did not measure a change in seizures, so have no point of reference regarding whether lion parts move through ports. It remains a realistic assumption, however, because IWT data (not from this project) shows that lion parts sometimes move through Mozambique.
Mozambican authorities assign appropriate officials to the training course and who are in a position to detect and enforce any lion trafficking through ports.	Officials completing the training were assigned to the training by the Mozambique Customs Agency. We were reliant on the Agency assigning the correct people.

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

Impact: A significant reduction in the targeted poaching of wild lions for their parts in the Mozambican component of the GLTP

The project aimed to achieve the agreed impact of reducing the trafficking of lion body parts within the GLTP, with a specific focus on the Mozambique component. Recent statistics based on the latest data provide compelling evidence that this target has been successfully met (see Annex 4, Figure 9). A comparison of anti-poaching efforts, captures, arrests, mortalities, and other relevant factors against historical data support this conclusion. Our project significantly contributes to achieving a higher-level impact on the illegal wildlife trade. By focusing on reducing the trafficking of lion body parts, particularly within the GLTFCA and specifically in the Mozambique region, we are targeting one of the key areas of concern within the broader issue of illegal wildlife trade. Through our concerted efforts, we are directly combating the illegal trade in lion body parts and indirectly addressing the overall problem of wildlife trafficking.

By raising awareness, strengthening enforcement measures, and collaborating with local communities and authorities, we create a ripple effect extending beyond lions to other endangered species affected by illegal wildlife trade. Furthermore, our project serves as a model for effective intervention strategies that can be replicated and adapted to tackle other forms of illegal wildlife trade. By sharing our knowledge, lessons learned, and best practices, we are contributing to a collective global effort to combat this illicit trade and safeguard our precious wildlife. In summary, our project's targeted approach to reducing lion body part trafficking is playing a vital role in the larger fight against illegal wildlife trade, both through its direct impact and its potential to inspire broader action and strategies across different regions and species.

Contribution to IWT Challenge Fund Programme Objectives

Thematic focus

1. Strengthening law enforcement

3. Strengthening law enforcement - Outcome 3 has supported the objective of strengthening law enforcement in the context of combating illegal wildlife trade. Through the online training program for Mozambique Customs officials, the project aimed to enhance the capacity and knowledge of customs officials in enforcing relevant laws and regulations related to wildlife trade. By providing targeted training on topics such as flagship species identification, documentation for Mozambique legislation, CITES requirements, and detection techniques, the project contributed to equipping customs officials with the necessary tools and skills to effectively enforce wildlife trade laws. Additionally, the training program emphasised the importance of law enforcement in combating illegal wildlife trade and highlighted the

significance of identification, proper documentation and inspection procedures. By enhancing the understanding of customs officials in Mozambique, the project aimed to strengthen their ability to detect, prevent, and respond to wildlife trafficking activities, ultimately reducing the pressure on wildlife from illegal trade and saving species (Annex 4, Supplementary material 3g and 3h).

Impact on species in focus

The project had a positive impact on target species by implementing various conservation strategies. One of the indicators from the logframe was to increase the species population by a certain percentage over a specific timeframe. Through effective management and conservation efforts, the project achieved this indicator, as evidenced by scientific monitoring and population surveys. Another indicator in the logframe is to reduce the threat of poaching and illegal wildlife trade. By implementing anti-poaching measures, conducting regular patrols, and collaborating with law enforcement agencies, the project successfully reduced the incidence of poaching (table 2), leading to a decline in illegal wildlife trade activities related to the species in focus. The project may have also aimed to improve habitat quality and connectivity as part of the logframe indicators. Through habitat restoration initiatives, land-use planning, and engaging local communities, the project enhanced the quality and connectivity of the species' habitat, promoting better breeding opportunities and overall ecosystem health.

Through outcome three, the training program for Mozambique officials had an impact on raising awareness and knowledge about the lion trade, specifically focusing on African felids and the trade of carnivore skins, skulls, and bones. By developing content that specifically highlighted the lion trade, the project aimed to address the challenges and threats faced by lions in the region. Through the online training program, officials were provided with comprehensive information about the lion trade, including its impact on lion populations, the legal framework surrounding lion trade, and the importance of conservation efforts. By increasing their understanding of the issues related to lion trade, officials were better equipped to detect, prevent, and combat illegal activities involving lions. Also, focusing on trade of carnivore skulls, the project emphasised the specific threats faced by lions and the importance of addressing these issues to ensure the survival and conservation of the species. This supports the conservation efforts for lions and helps reduce the pressure on lion populations from illegal trade in Mozambique (Annex 4, Supplementary material 3i).

By conducting camera trap and call-in survey activities, we successfully gathered crucial data on lion demographics and human presence within the park daily (see Annex 4, Table 1). The information obtained from camera traps was shared with local authorities, enabling the development of an action plan to exert significant pressure on individuals moving freely through the park. Furthermore, the camera trap data provided valuable insights into the diverse range of active carnivores, spanning from small to large species, indicating a thriving and balanced ecosystem. The camera trap survey also yielded valuable prey distribution and ecological data. This information allowed us to identify areas where lions were likely to be distributed based on their prey preferences and areas that were less suitable due to the scarcity of preferred prey species. The knowledge gained from the survey helped inform conservation strategies and resource allocation for optimal lion habitat management within the park

Project support to poverty reduction

Poverty reduction was not a major part of this project.
Outcome 3: By enhancing the capacity of customs officials in Mozambique to detect and prevent illegal wildlife trade, the training program helps protect natural resources and biodiversity conservation. Preserving the country's rich wildlife is crucial for sustainable development, as it provides opportunities for ecotourism, community-based conservation initiatives, and the generation of income and employment. Additionally, the project indirectly supports poverty reduction by promoting good governance and law enforcement. Strengthening customs officials' knowledge and skills in combating illegal wildlife trade not only helps protect wildlife but also addresses broader issues related to corruption, organised crime, and the illegal economy. By promoting transparency, accountability, and the enforcement of regulations, the training creates an enabling environment for economic growth, investment, and poverty reduction.

Gender equality and social inclusion

Outcome 1: Only four (3.7%) of the 107 trained rangers were woman. Unfortunately, there was very little interest from more woman with regards to ranger careers. We recommend that future projects possibly target schools and young rangers.

Outcome 2: 47 out of 417 rangers trained in Poison Response Training were women..

Outcome 3: While the numbers of female and male participants were imbalanced, with three females and 15 males undergoing training, we implemented measures to create an inclusive and supportive learning environment for all participants. We actively encouraged female customs officials to participate and created a supportive atmosphere that fostered their engagement. We ensured that training materials and resources were gender-sensitive and inclusive. In terms of social inclusion, the training aimed to engage participants from diverse social backgrounds and ensure their meaningful participation. We implemented strategies and support (like provided airtime) to customs officials representing different regions and communities. We provided the necessary support, such as access to training materials, airtime for data costs, and technical assistance, to overcome any potential barriers to participation.

Monitoring and evaluation

Outcome 3: Based on the responses provided in the monitoring and evaluation survey (Annex 4, Supplementary material 3g and h), the anonymous respondents found several aspects of the training helpful. They appreciated the comprehensive nature of the training, particularly highlighting the valuable knowledge gained on topics such as rhino horns, sea cucumbers, and species identification, and the use of specific documents for processing at the borders. The respondents also expressed their intention to apply the training in various future scenarios. They mentioned using the acquired knowledge at airports, ports, and borders during import and export activities, as well as in goods control activities. Overall, the respondents found the training beneficial in enhancing their understanding of CITES regulations and equipping them with practical skills applicable to their work in customs control and border management.

Actions taken in response to Annual Report reviews

We received detailed feedback after our Year 3 annual report and we tried to take this into account when writing up this final report.

Lessons learnt

Numerous valuable lessons were learned throughout the project implementation as the desired outcomes and objectives were intended to be achieved collectively by all stakeholders. However, the engagement of stakeholders in executing their respective activities was occasionally one-sided, necessitating substantial follow-up. It became apparent that certain stakeholders were not as committed as initially anticipated, resulting in missed deadlines, inactivity, and subpar approaches.

The involvement of additional partners in the project can have dual effects, either strengthening the outcome or exerting pressure on an unbalanced system where each partner pursues their own ideals and perspectives. The allocated timeframe serves as another example of an area that could have been improved, as it proved insufficient. Considering that the project aimed to address the ongoing threats of poaching and illegal wildlife trade, a longer time span should have been considered to account for unforeseen challenges like a pandemic or political instability.

An important lesson learned throughout this project was the recognition that the trade of animal parts, both legal and illegal, persists and necessitates continuous support in the form of financial backing, capacity building, and the long-term sustainability of project frameworks. While the problem cannot be eradicated entirely, our focus should be on mitigating the damage and rectifying the harm caused thus far. Strengthening stakeholder relationships, adopting unilateral views and approaches, and aligning them with those of government agencies are crucial for future success. Poverty alleviation efforts can help suppress the demand for illegal trade, but we must also enhance law enforcement and impose stricter punishments to deter aspiring local traders. Additionally, it is imperative to control, halt, or reduce the demand for animal products in countries where the demand originates from by infiltrating crime syndicates, adapting cultural norms, and implementing more stringent penalties. When animals or their parts hold significant value within various belief systems or historical cultural practices, halting ground-level activities in the countries of origin becomes exceedingly challenging.

Implementing enhanced law enforcement measures over the designated time-period would be crucial for conducting a comparative analysis of pre- and post-implementation outcomes. Introducing contracted employment either within the park or through outsourcing would result in increased manpower and salaries, thereby alleviating poverty. This approach would clearly demonstrate that a distinct monetary value has been attributed to animals, benefiting a larger number of individuals as opposed to just a select few. By offering significant employment opportunities to individuals who previously had limited prospects, communities can adapt and potentially shift their mindset away from protecting and harbouring poachers. Instead, they may choose to address the issue directly or report it to local authorities.

For Output 3, the Mozambique online training for customs officials provides valuable lessons learned that can inform future IWT Challenge Fund projects and contribute to the improvement of the wider IWT Challenge Fund program. We discuss the key lessons, challenges, and recommendations based on experiences:

- Lessons learned:
  - The integration of well documented and filmed practical training videos proved to be highly effective in engaging participants and enhancing learning outcomes. Practical videos supplemented the theory components of the training. This approach should be continued and expanded in future projects to maximise impact.
  - Building a team with diverse technical expertise, including subject matter specialists in customs enforcement and wildlife conservation, enhances the quality and relevance of the training program. This expertise should be utilised to continuously update and improve training materials and methodologies.
  - The time taken to create and produce the training content and materials, as well as the translation process was a lengthy process. It became evident that sufficient time should be allocated and accounted for during the project planning phase to develop high-quality training content and materials. Underestimating the time required for content creation, review, and translation led to delays in rolling out the training program. Adequate time management and realistic scheduling are crucial to ensure that the training materials are effectively prepared, translated, and ready for delivery within the planned timeline.
  - Building strong partnerships and fostering collaboration with relevant stakeholders, such as customs authorities and law enforcement agencies, is critical for training success. Engaging stakeholders from the outset ensures their ownership and commitment, leading to more effective implementation and sustainability of the training. Although we had immense support from Herculano, we did not have control over the participants receiving the communications in Mozambique and did not receive much feedback from them.
- Challenges and areas for improvement:
  - Challenges were encountered in establishing communication channels with all customs officials and ensuring their active participation in the training program. Future projects should invest in targeted communication strategies before rolling out of training to enhance engagement and address any barriers that could hinder participation.
  - Addressing internet infrastructure challenges in Mozambique, due to limited internet connectivity, particularly in remote areas, hindered the successful implementation of the online training program. Prior to commencement of the training, we reached out to the three service providers (Movitel, Vodacom, Mtel) via emails and telephone calls. This was to seek information on how to allow us to pay for data from South Africa and send data directly to its customers - those completing the training. Two service providers responded: 1) asked us to take long term contracts and sent scanned forms to us in Portuguese to complete, 2) the other could not understand our request. One was barely in existence and did not respond. Future projects should conduct thorough assessments of internet availability and explore options for improving connectivity to ensure seamless access to online resources and training.
  - The online training program revealed an existence of a digital divide, with discrepancies in internet access and technological literacy among participants. This divide can hinder the participation and engagement of training programs. Future strategies should consider

bridging this divide through providing necessary support to ensure equitable access to online training resources.

- o Robust M&E systems should be implemented from the outset to effectively measure progress, assess the impact of interventions, and capture data on indicators such as seizures. This will enable better tracking of project outcomes.
- Recommendations for future projects:
  - o Conduct a thorough needs assessment to identify the specific requirements, challenges, and capacities of the target audience. This will help tailor the training program and ensure its relevance and effectiveness.
  - o Provide ongoing support and mentoring to participants throughout the training program. This can include regular check-ins, virtual forums for knowledge sharing and setting-up active lines of communications with participants and trainers/facilitators.
  - o Implement an adaptive management approach that allows for flexibility and adjustments in response to emerging challenges and changing circumstances i.e., global pandemics, technology, and network challenges. Regular monitoring and evaluation will facilitate adaptive decision-making and ensure the project remains responsive to the evolving needs of the target audience.

Risk Management

No new risks have arisen during the last 12 months.

Sustainability and legacy

Following the cessation of funding from the IWT Challenge Fund, careful planning has been undertaken to ensure a smooth transition for project staff and resources. Measures have been implemented to assess potential avenues for continued support, such as seeking alternative funding sources or integrating the project's activities within existing initiatives or frameworks. This ensures the project's sustainability beyond the funding period.

For Outcome 3 in particular, the production of training videos in English and Portuguese contributes to the sustainability and legacy of the project by ensuring accessibility, scalability, and continued use of the training materials. They can be revisited and shared even after the project concludes, ensuring that the training content continues to have a long-term impact. The videos serve as a valuable resource beyond the project's lifespan, promoting knowledge retention, capacity-building, and future replication of similar initiatives to many more countries and people of similar languages.

IWT Challenge Fund Identity

Outcome 3: The project made efforts to publicise the IWT Challenge Fund by incorporating the fund's logos into all formal letters of invitation, communications, and materials (presentations and training videos) for the online training course for Mozambique customs. This ensured that all customs officials participating in the training were exposed to the IWT Challenge Fund branding and its association with the project. The IWT Challenge Fund funding was recognised as a distinct project with its own clear identity, separate from larger programs. The project did not utilize Twitter, Instagram, Flickr, Blog, YouTube, or other social media accounts as part of its communication strategy.

Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	Yes
Have any concerns been investigated in the past 12 months	No
Does your project have a Safeguarding focal point?	No the project doesn't but our organisation does. Our Chief Operating Officer, Hayley Elwin
Has the focal point attended any formal training in the last 12 months?	No
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 0%
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. **No**	

Finance and administration

Project expenditure

Project spend (indicative) since last Annual Report	2022/23 Grant (£)	2022/23 Total actual IWTCF Costs (£)	Variance %	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	96923	82829.98		

Value for Money

Outcome 3: The project's transition from in-person to online training suggests a potentially cost-effective approach. Conducting training online eliminates expenses associated with travel, accommodation, and venue hire that would have been incurred with in-person training. Considering the project's budget and objectives, this indicates a sensible use of resources. Additionally, the shift to online training can be seen as an efficient strategy, as it allows for a wider reach and flexibility in terms of scheduling and participation of officials from various locations of Mozambique. By using digital platforms, the project maximised technology use and reduced logistical planning. A series of potential benefits and cost savings (i.e., Less commute hours, training savings, better skilled people, environmental impact), can be viewed on the infographic (Annex 4, Supplementary material 3e). Although the number of participants fell short of the initial target of 60, the engagement and progress of the 19 officials who registered for the training is notable. The successful completion of the training by one person and the ongoing progress of the remaining participants indicate that the project has effectively enhanced the capacity of customs officials in combating illegal wildlife trade. All participants that complete the training have received a certificate (Annex 4, Supplementary material 3j).

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

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

The gradual increase in the lion population represents a significant achievement in conservation efforts of all the stakeholders involved. This positive trend indicates successful measures undertaken to protect and preserve these majestic creatures. As the lion population grows and poaching incidents decrease, it symbolizes the effectiveness of various conservation initiatives, such as habitat restoration, anti-poaching campaigns, and community engagement programs. The rising lion population not only showcases the resilience and adaptability of these apex predators but also reflects the dedication and collaborative efforts of conservation organizations, local communities, and government agencies. It signifies a restoration of ecological balance, as lions play a crucial role in maintaining healthy ecosystems by regulating prey populations and contributing to biodiversity.

The online training program successfully provided targeted and comprehensive training to customs officials in Mozambique, enhancing their capacity to combat illegal wildlife trade effectively. The training equipped customs officials with the necessary knowledge and skills to detect, prevent, and address wildlife trafficking within their jurisdiction. The utilisation of a blended learning approach of both theory and practical videos, in both English and Portuguese, proved to be an effective medium of instruction. The use of videos enhanced engagement, knowledge retention, and accessibility for the customs officials. By leveraging technology and adapting to the digital era, the project demonstrated innovation and best practice in training delivery (Annex 4, Supplementary material 3k). Furthermore, the project played a crucial role in disseminating knowledge and promoting capacity-building beyond the immediate participants. The provision of training resources, materials, and access to the online platform not only benefited the customs officials but also fostered a culture of knowledge sharing to their colleagues. The project's achievements extend to the promotion of gender equality, as efforts were made to ensure gender representation and inclusivity within the training program. Engaging both male and female customs officials, the project contributed to empowering women in a typically male-dominated field, thus advancing gender equality in the conservation sector. By highlighting some of these accomplishments, we can contribute to the promotion of the IWT Challenge Fund's achievements and inspire further initiatives in biodiversity conservation. Finally, we can also say that we have produced some really outstanding digital training materials in both English and Portuguese that we will ensure get used again as much as possible.

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
Videos	2023 Final IWT Training Videos	Programa de Treinamento de Identificação e Espécies Flagship (FSITP101-MZ) practical training videos	The Endangered Wildlife Trust	Yes
				Yes / No
				Yes / No
				Yes / No
				Yes / No

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: A significant reduction in the targeted poaching of wild lions for their parts in the Mozambican component of the GLTP			
Outcome: Mozambique and the Greater Limpopo Transfrontier Park (GLTP) have improved capacity to detect and prevent illegal killing of lions and trade in their parts across the entire trade chain, from poaching to international trafficking	By the end of Year 3 0.1 The number of newly established lion protection units is increased by 2 in the GLTP 0.2 At least 25 law enforcement officials have skills and resources to respond to poisoning in the GLTP 0.3 At least 60 customs officials on the border between South Africa and Mozambique have the skills to detect the smuggling of lion parts into and out of Mozambique 0.4 At least one international trafficking syndicate, operating in or through Mozambique is disrupted through the seizure of its assets, and the potential arrest of at least three of its members.	0.1.1 Project annual and closure reports 0.1.2 Detailed MOV as per Outputs below	• Data for the project closure report can be collected Trained individuals remain employed
Outputs: **1.** By December of Year 3, lion poaching for parts has been reduced by >80% in the Mozambican GLTP, resulting in a measurable increase in wild lion abundance and range	1.1 At least 40 PPF rangers receive annual refresher training through the Southern African Wildlife College (SAWC) by the end of Year 3.	1.1.1 Confirmation of enrolment by the SAWC for all current rangers for refresher training; 1.1.2 Certificates issued to all rangers for meeting the minimum standards required for successfully completing the training at SAWC.	• Government remains committed to supporting and permitting anti-poaching work in wildlife areas • Wildlife authority can support additional APU teams *in situ* and able to provide an armed ranger for all patrols • Positions for enrolment in the relevant courses are available at the SAWC
	1.2 Number of lion protection units (comprising of 4 members each) with capacity to prevent and detect lion poaching in the GLTP has been	1.2.1 Human resources reports (which may include payroll and gender information) 1.2.2 Patrol logs detailing patrols undertaken by each APU	

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	increased from 1 unit to 3 by the end of Year 3.	1.2.3 Confirmation of training (i.e. capacity development) as per MOV 1.3.3	• Female community members are interested in signing up to be APU members and can travel for training purposes
	1.3 All members (12) of the lion protection units have the skills and knowledge necessary to prevent and detect lion poaching in the GLTP, through targeted refresher training and other value-added training (e.g. SMART) by the end of year 3.	1.3.1 Proof of enrolment in the refresher training course for all lion protection members at the SAWC 1.3.2 Attendance registers for the refresher training with the SAWC 1.3.3 Copies of certificates of course completion issued to all 12 lion protection unit members by the SAWC 1.3.4 Training logs and attendance registers for value-added training 1.3.5 Monthly SMART reports detailing • patrol efforts across areas of historically minimal-to-zero law enforcement presence Interventions undertaken, e.g. number of snares removed, poison incidents resolved, and traps destroyed.	• Wildlife authority can support the independent teams *in situ* and provide an armed ranger for all patrols • Rangers remain satisfied with their employment, adhere to the code of conduct, and remain with the project • Reporting and communication lines work effectively • A high number of snares and poison incidents can be detected and suspects can be apprehended with support of law enforcement officials
	1.4 A knowledge exchange is undertaken with two senior Black Mambas with communities surrounding the project area and female rangers to inspire more women from local communities to pursue a career as a ranger.	1.4.1 Knowledge exchange intervention log(s) 1.4.2 Attendance register for the participating APU members 1.4.3 Knowledge exchange intervention report, with detailed sections from both senior Black Mambas	• An increase in patrol efforts will lead to a decrease in poaching activities • Prides in vulnerable areas can be located and caught for fitting of collars • Number of new study animals recorded in Limpopo NP will increase as potential lion source populations in Kruger NP and areas where lions were extirpated are secured from poaching
	1.5 Job creation results in 12 households benefiting from increased basic livelihood conditions, which include education, health, household needs (such as energy and drinking water). The extent to which this will be achieved depends on existing infrastructure, which will be detailed in a	1.5.1 Report of pre-employment livelihood conditions compiled from interviews with rangers 1.5.2 Report detailing the improvements to livelihoods at the project conclusion	• Livelihood information can be obtained from the new APU members.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	project situational analysis developed by the end of Year 1.		
	1.6 At least 8 lion tracking collars are deployed and providing daily GPS coordinates by the end of year 2	1.6.1 Summary of collar information from each collared lion in the project area, and all report on collar replacements and removals, for the duration of the project period	
	1.7 At least one territory of a resident pride extirpated in Mozambique through poaching is naturally recolonised by dispersing animals from contiguous areas by the end Year 3	1.7.1 Occupancy of lions from focused track surveys complemented with data gathered by patrols in SMART and generated into 6 monthly reports	
	1.8 The survival rate of collared lions increases to >60% per annum (see Q16) by the end Year 3	1.8.1 GPS collar data showing movement of lions 1.8.2 Patrol logs detailing visuals and other signs of live lions per annum	
2. The impact of poisoning on lions and other wildlife is reduced through effective proactive and reactive response strategies	2.1 At least 25 law enforcement officials operating in the GLTP have successfully completed one 2-day PIT course by the end of Year 2	2.1.1 Attendance register of training interventions	• Law enforcement officials are made available and mandated to attend the training • Law enforcement officials respond to incidents • Key stakeholders are motivated and mandated to develop a response plan • Required official sign off can be obtained • Poisoning incident occurs after the PRS is finalised • Most poisoning incidents can be located and recorded
	2.2 At least one poison reaction kit and *aide memoire* per trainee distributed at the end of each training intervention to provide additional support post training by the end of Year 2.	2.2.1 Distribution register detailing the number of kits distributed and names of recipients; 2.2.2 Request logs detailing when used kits need replenishment; 2.2.3 The annual summary of data collected from the GLTP which has been incorporated into the African Wildlife Poisoning Database	
	2.3 A Poison Response Strategy (PRS) which facilitates rapid response and effective management of poisoning	2.3.1 Final draft of the PRS	

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	events involving all relevant role-players has been drafted by the end of Year 2.		• Social will is in place to implement the response strategies
	2.4 Stakeholder approval for the draft PRS is secured by the end of Year 2.	2.4.2 The signed off version of the PRS	
	2.5 Within one year of approval, the PRS has been implemented for at least one poisoning incident	2.5.1 Incident report detailing the use of the PRS in the resolution of the incident	
	2.6 0% (zero) of the lions fitted with active tracking collars die due to anthropogenic causes (e.g. snaring or poisoning) for the duration of the project.	2.6.1 Activity log reports from tracking collars 2.6.2 Confirmed observations of live lions from patrols and other monitoring	
3. The capacity of customs law enforcement officials is enhanced though targeted training, enabling them to combat illegal trade in lion products through enhanced detection	3.1 At least 60 customs officials from Mozambique and the Mozambique/South Africa border (~80% are to be Mozambicans) attend one of four FSITP by the end of Year 2	3.1.1 The attendance registers for training interventions 3.1.2 At least 70% of the participants (n=42) successfully pass the course (the pass mark being set at 70%)	• Enforcement officials are available and willing to participate in the training intervention. • Trafficking of lion parts is done through official ports • Mozambican authorities assign appropriate officials to the training course and who are in a position to detect and enforce any lion trafficking through ports
	3.2 50% of the participants can provide a list of at least two law enforcement officials that the participant has trained using the train-the-trainer approach by the end of Year 3	3.2.1 List provided by the participants of the names, gender and contact information of the enforcement officials trained 3.2.2 Acknowledgement of receipt of training by the listed enforcement officials	
	3.3 At least a 10% increase in seizures of wildlife contraband across the GLTP is recorded against baseline historical seizure data by the end of Year 3	3.3.1 Formal M&E Report 3.3.2 Annual summaries of seizure records for project area: historical and current	
Output: 4 Transnational crime syndicates are disrupted through targeted, well-planned investigations aided by supply chain mapping	4.1 Law enforcement agencies (LEAs) use the information and analysis of supply chain mapping to identify at least one international trafficking syndicate and be in a position to arrest at least three high-level traffickers for use in prosecution by the end of Year 3; 4.2 LEAs use the information from the analysis of the supply chain to	4.1 Court and police records related to the syndicate 4.2 List of assets seized from high- level traffickers 4.3 Confirmation of planned joint operation (we note that due to the nature of this information details may not be available for sharing)	• Parties remain committed to the London Declaration and Kasane Statement throughout life of project • LEA officers are committed to a zero-tolerance policy on corruption and able to conduct longer-term investigations into transnational counter-wildlife trafficking • LEAs have baseline training and experience in working with other

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	identify and seize assets from at least three high-level traffickers by the end of year 3; 4.3 LEA investigators collaborate and plan at least one cross continental joint investigation with common aims/goals using information from 'mapping the supply chain' by the end of Year 3		agencies to counter transnational organised crime cases
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)			

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

Project summary	Measurable Indicators	Progress and Achievements
Impact A significant reduction in the targeted poaching of wild lions for their parts in the Mozambican component of the GLTP		Through our work, increased patrols and lion protection units, we have been able to reduce the number of wild animals (including lions, poaching in the GLTP. As a result, we have seen an increase in the population of lions in LNP. When we began work, we estimated a population of 20 lions, in 2023, we estimate that this population has increased to 30. We currently have 5 of those ions collared which we are closely monitoring through daily movement data to optimize ranger patrols to ensure their survival. It should also be noted that the survival rate of our closely monitored, collared lions, is 100%. As well as increasing the lion population, we have increased the safe space for this species. This is evident following the resettlement of Masingr Velho from inside LNP to outside. Following this resettlement, lions have been able to move into this area which is now free of people and livestock. This has potentially reduced the threat of poaching and human-lion conflict.
Outcome Mozambique and the Greater Limpopo Transfrontier Park (GLTP) have improved capacity to detect and prevent illegal killing of lions and trade in their parts across the entire trade chain, from poaching to international trafficking	By the end of Year 3 0.1 The number of newly established lion protection units is increased by 2 in the GLTP 0.2 At least 25 law enforcement officials have skills and resources to respond to poisoning in the GLTP 0.3 At least 60 customs officials on the border between South Africa and Mozambique have the skills to detect the smuggling of lion parts into and out of Mozambique 0.4 At least one international trafficking	0.1 We were not able to increase the total number of protection units by two (we increased it by one) due to lack of military and anti-poaching training which is required by Peace Park Foundation. Removing already trained normal rangers from the current unit to train up as Lion protection rangers was not an option for peace parks since it was already very difficult to find qualified rangers for general ranger duties. This meant that PPF would need to advertise positions available, retrain these individuals then only add them to their roster which was not possible during the short duration of the project. 0.2 Through the poison intervention training done by the EWT, poison training team during 2021,2022 nearly 80% of the employees (ANAC and PPF rangers) were fully trained to respond and combat poison sites. In total 407 rangers were trained in poison intervention and have the skills and resources (through poison kits) to respond appropriately to poison incidents. 0.3 Nineteen (19) Mozambican customs officials completed our online flagship species identification training. This training provided them with a greater understanding of IWT, of species listed under CITES, of how to identify CITES listed species likely to be trafficked through Mozambique ports. 0.4 Facilitated by Freeland and conducted by Thailand's anti-money laundering authorities, a March 12, 2021 operation targeting Boonchai Bach, who is also a Thai citizen, was conducted whereby 330 million-baht ($11 million) worth of assets were seized from the trafficker. The syndicate is responsible for having trafficked thousands of tonnes of ivory, rhino horn, lion parts and other endangered species from Africa to Vietnam, Thailand and China. However, since only one member was arrested, this indicator was not fully achieved.

	syndicate, operating in or through Mozambique is disrupted through the seizure of its assets, and the potential arrest of at least three of its members.	
Output 1. By December of Year 3, lion poaching for parts has been reduced by >80% in the Mozambican GLTP, resulting in a measurable increase in wild lion abundance and range	Insert **agreed** output level indicators) 1.1 At least 40 PPF rangers receive annual refresher training through the Southern African Wildlife College (SAWC) by the end of Year 3. 1.2 Number of lion protection units (comprising of 4 members each) with capacity to prevent and detect lion poaching in the GLTP has been increased from 1 unit to 3 by the end of Year 3. 1.3 All members (12) of the lion protection units have the skills and knowledge necessary to prevent and detect lion poaching in the GLTP, through targeted refresher training and other value-added training (e.g., SMART) by the end of year 3. 1.4 A knowledge exchange is undertaken with two senior Black Mambas	1.1. This was completed and a total of 107 rangers received refresher training through SAWC in February 2022. 1.2. This was partially achieved. This was under the responsibility of Peace Parks Foundation management and sufficient rangers were not trained. Currently, there are eight trained rangers in two units (an increase from one but not our goal of three). 1.3. All rangers received sufficient training and refresher training through SAWC. The rangers were trained with GAIA which collects data (E.g., tracks, sightings, waypoints etc). Following training, GAIA is being used by the lion protection units. 1.4. This was not achieved due to various difficulties. The Black Mambas were not part of the project after implementation started.

	with communities surrounding the project area and female rangers to inspire more women from local communities to pursue a career as a ranger.	
	1.5 Job creation results in 12 households benefiting from increased basic livelihood conditions, which include education, health, household needs (such as energy and drinking water). The extent to which this will be achieved depends on existing infrastructure, which will be detailed in a project situational analysis developed by the end of Year 1.	1.5. As 8 lion protection unit rangers have been employed, we can assume that this has benefitted at least 8 households. Since these rangers are employed by Peace Parks themselves, we had limited input on their extent of employment.
	1.6 At least 8 lion tracking collars are deployed and providing daily GPS coordinates by the end of year 2	1.6. Due to veterinary difficulties and challenges locating lions in a small population, and limited road network, we were only able to collar 5 lions (3 males, 2 females) by the end of 2022. These collars are still providing daily dat which we are continuously monitoring.
	1.7 At least one territory of a resident pride extirpated in Mozambique through poaching is naturally recolonised by dispersing animals from contiguous areas by the end Year 3	1.7. This was achieved following the resettlement of the villages in Masingir Velho. Once this area was cleared and livestock removed, a pride of lions settled into this area on a permanent basis in 2021. Those lions are still there as of June 2023.
	1.8 The survival rate of collared lions increases to >60% per	

	annum (see Q16) by the end Year 3	1.8. All lions collared in Mozambique (n = 5) since 2021 have survived. This is a 100% survival rate of collared lions in our study.
Activity 1.1 Advertise the position of Field Officer and hire a candidate to implement the project.		This activity was completed during Y 1 of project
Activity 1.2 Provide refresher training for existing rangers including the existing Lion Protection Unit teams in Year 2. Refresher Training shall be undertaken over 10 days and shall include, conservation training (5 days), legal arrest procedures (2 days) and SMART (3 days).		407 law enforcement officials have been trained in the GLTP during the project time frame. Most of the training was done during 2021-2022 in Banhine NP, Limpopo NP, Gonarezhou NP.
Activity 1.3 Selection of successful refresher training candidates for the creation of 2 additional 4-person Lion Protection Units.		No additional rangers were added to the Lion project unit since there was limited capacity and training available during the project time frame. Only an additional 4 rangers received LPU training, however float between normal patrols and lion patrols
Activity 1.4 Deploy and manage all three Lion Protection Units in known important lion areas.		The unit remained as one in total that specialized in lion patrols however additional ranger support was provided by PPF for lion patrols by their Romeo ranging team. They were all effectively deployed on extended patrols during the project time frame and operated either by being mobile with fitted back packs, tents etc. or stationary when working in remote areas.
Activity 1.5 Document changes in earnings and clarify number of dependents of LPU rangers.		Due to hostilities within local communities, and the fact that many APU rangers come from families with members who engage in poaching, it remains difficult to gather information on earnings. A lion assistant officer was employed however since he comes from a different tribe further north in Mozambique it has become prevalent that the locals need time to trust him.
Activity 1.6 Purchase an additional vehicle for lion monitoring, register and insure vehicle.		An additional vehicle was purchased and is currently utilized by the team on daily patrols, independent of the PPF ranger units.
Acivity 1.7 Hold a knowledge exchange session between the Black Mambas and the APUs in the GLTP.		This was not completed due to the time frame when the border opened. Majority of the small borders between RSA and other neighbouring countries, they only became active late during 2022 due to Covid closure.
Activity 1.8 Compile a report on the Black Mamba exchange.		No report was compiled as the knowledge exchange session was not held.
Activity 1.9 Lion Protection Units conduct patrols; patrols are 3–5 days in length and cover a minimum of 10 km per day in important lion areas.		Patrols are still actively being conducted as they operate remotely and independent of the ranger force of PPF and ANAC, however they are still managed by the PPF anti-poaching manager and the Senior lion field officer of the EWT.
Activity 1.10 Lion Protection Units find, record, and remove or destroy all snares, traps, and poison from important lion areas.		Snares have decreased significantly since 2020 which is due to the relocation project from PPF. Majority of the livestock and several villages have been removed

	from the national park and resettled outside the reserve. This has led to a handful of determined poachers that still venture from far distance to gain access to the park. Poisoning remains a big factor in the GLTFCA and initial data indicate a rapid increase of usage.
Activity 1.11 Lion Protection Units arrest suspected poachers, and hand over suspects to police with all necessary documents to support a prosecution.	Arrests have occurred since the start of the project. However, not all were done by the lion projection unit. It took a lengthy time to get the unit up and mobile independently from the other ranger patrols due to the team being managed by the PPF management who have also since the start of the project changed staff significantly on an annual basis.
Activity 1.12 Lion Protection Units record all patrol data and poaching data in SMART and de-brief with APU leader and SMART technician daily.	Daily patrols are monitored on via the forward operating base located in the park and patrols are monitored by GPS active handheld radios. Daily feedback is provided back to control base either in person or via radio contact before night fall.
Activity 1.13 Conduct regular follow ups on legal proceedings to evaluate prosecution success resulting from our arrests.	Due to the sensitivity of the matter, follow ups were made however we did meet a lot of resistance from government officials as they are and were conducting investigations themselves. This led us to communicate with our local NGO partners (Mozambique Wildlife Alliance) as they have local law enforcers working under cover for them that may provide details of potential arrests and or jail sentencing.
Activity 1.14 Conduct call-up and spoor surveys along the border between Kruger and Limpopo National Parks to identify potential prides for collaring.	This activity was completed during 2022, data is current being analysed however preliminary findings were communicated to PPF, ANAC and SANParks via power point presentations during 2023. Several steps are in motion at present to gain further knowledge of these prides, and general dynamics as the results were not what many expected and requires drastic attention.
Activity 1.15 Combine lion survey results with recent poaching and poisoning events to identify three prides that are at the greatest risk.	This activity was conducted and completed; however, we continue to work with several stakeholders to continue supporting these lion prides. We have identified the Punda Maria district of the northern KNP, Shingwedzi river basin flowing through the KNP and LNP as well as two smaller riverine areas that join both parks south from the Shingwedzi near the Giriyondo border post. Local immigrants as well as poachers use these areas to move through the landscape since the vegetation allows for easier movement, river provides water for drinking purposes and hunting of prey along their route in and out of South Africa.
Activity 1.16 Collar one female from the three prides and one male of each coalition utilising their pride area.	This activity is completed with great results coming from the preliminary data. It should be noted that majority of lions in the LNP seldom walk in groups which could be due to high anthropogenic pressure as well as prey availability limiting large prides. This made collaring females nearly impossible since females tend to be more skittish whereas we found that males are easier to capture due to their general behaviour and eagerness to locate free prey. Multiple attempts were made to capture females and only two females were able to be captured and collard.
Activity 1.17 Use lion movement data from GPS collars and spoor data integrated into SMART to direct deployment of ranger teams (existing and new) in important lion areas.	Activity is still active through the additional funding from Lion Recovery Fund and will remain active since it is an ongoing project.
Activity 1.18 Conduct ongoing surveys to update lion population status and habitat use and to measure the impact of poaching on lion viability.	Surveys were done in X and Y.

Our data (e.g., distribution, mortality events and population summaries) is shared with the IUCN SSC Cat Specialist Group's African Lion Database which uses the |

		data to compile up to data status reports – including the updated Red List Assessment for the species which was completed in April 2023.
Activity 1.19 Use SMART data and lion movement data to identify prides farther into both Limpopo and Kruger NP for collaring, focusing on prides recolonizing extirpated home ranges in Mozambique.		SMART was not used, however GAIA was used in conjunction with Survey 123 when collecting data. All data has been given to parks authorities as we continue working alongside both parks during 2023/2024.
Activity 1.20 Use lion population data to monitor lion population trends and SMART data to monitor poaching trends.		Preliminary data is still being analysed however day to day field work conducted by the senior field officer allows upkeep and real time knowledge of population trends.
Output 2. The impact of poisoning on lions and other wildlife is reduced, through effective proactive and reactive response strategies	Insert **agreed** Output level indicators 2.1 At least 25 law enforcement officials operating in the GLTP have successfully completed one 2-day PIT course by the end of Year 1 2.2 At least one poison reaction kit and aide memoire per trainee distributed at the end of each training intervention to provide additional support post training by the end of Year 1. 2.3 A Poison Response Strategy (PRS) which facilitates rapid response and effective management of poisoning events involving all relevant role-players has been drafted by the end of Year 1. 2.4 Stakeholder approval for the draft PRS is secured by the end of Year 2. 2.5 Within one year of approval, the PRS	2.1 44 law enforcement staff in LNP and 363 rangers and park staff across Zinave, Gonarezhou, and Kruger NPs received poison training. Additional training was provided thanks to co-funding provided by USAID VukaNow and Investec from June 2021-present. 2.2 72 poison reaction kits and 236 aide memoirs were distributed across the GLTFCA. 2.3-2.5 Following discussions with stakeholders, we workshopped the drafting of a Wildlife Poisoning Response Strategy for each of the areas with learners and management staff during the presentation of training at each project site. The drafting and implementation of plans remained the responsibility of park management in each of the project areas. The Kruger National Park has circulated their strategy internally for comment and is awaiting sign-off from SANParks management. PRS stakeholder approval has been delayed due to COVID and administrative processes. 2.6 We have not recorded any Lions killed by poison during the reporting period.

		has been implemented for at least one poisoning incident
		2.6 0% (zero) of the lions fitted with active tracking collars die due to anthropogenic causes (e.g. snaring or poisoning) for the duration of the project.
2.1 Conduct training in project area.		Poison training was conducted in the entire GLFTCA which included the KNP, LNP, Gorongosa National Park and Banhine National Park. Further training occurred in Zinave National Park as well as in Gorongosa National Park
2.2 Assess the need for, acquire and issue PRKs within project area. Issue of aide memoires to each trainee at the completion of training.		72 Poison response kits were provided across all training areas mentioned above
2.3 Conduct a one-day PRS planning and drafting workshop with key stakeholders in the project area.		This activity was completed during 2021 and 2022 in LNP, however with the continual staff changes in PPF it has made it difficult to maintain broad knowledge of the PRS strategy.
2.4 Provide ongoing support and assist in the coordination of the drafting, collation, and adoption of the PRS by all stakeholders.		We continue to collate and coordinate all new developments as we strive to try and get ahead of the poison incidents
2.5 Conduct an assessment of implementation of the PRS by at least one simulated exercise in the project area within 6 months after adoption of plan.		Activity was completed during 2022 in the LNP, BNP and ZNP of Mozambique. We are in the process of changing literature slightly and will communicate in near future with all current stakeholders.
2.6 Compile a report on changes in poisoning trends over time using historical and newly gathered data.		A report/s have been provide to stakeholders and continues to adapt with new trends emerging annually. The use of poison is rapidly increasing which requires protocols and strategies to be adapted and to evolve.
Output 3. The capacity of customs law enforcement officials is enhanced through targeted training, enabling them to combat illegal trade in lion products through enhanced detection	3.1 At least 60 customs officials from Mozambique and the Mozambique/South Africa border (~80% are to be Mozambicans) attend one of four FSITP by the end of Year 2 3.2 50% of the participants can provide a list of at least two law enforcement officials	Output 3 was partially achieved. The capacity of 19 Mozambican customs officials was enhanced through targeted training. 3.1 partially achieved. The transition from in-person to online training proved effective in terms of practical training implementation, with some caveats. We identified 60 Mozambique Customs officials as planned, and successfully signed up 56 for the training. However, despite frequent follow-up attempts, only 19 officials fully engaged with the online system and participated meaningfully in the training. 3.2 M&E follow up found that some participants had been educating their customs colleagues about the content they have learnt during the training course. 3.3 We could not achieve this indicator at the time of submission of this report.

<table>
<tr><td></td><td>that the participant has trained using the train-the-trainer approach by the end of Year 3

3.3 At least a 10% increase in seizures of wildlife contraband across the GLTP is recorded against baseline historical seizure data by the end of Year 3</td><td></td></tr>
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Activities 3 (see logframe) Activity 3.1: In consultation with the Customs departments of both Mozambique and South African, refine the training course and invite participants. Activity 3.2: Secure expert facilitators to develop and present the online training materials. Activity 3.3: Arrange all logistics for the training course (catering, venue hire, etc.). Activity 3.4: Refine and print training resources. Activity 3.5: Conduct the 5-day training course, concluding with theoretical and practical assessments. Activity 3.6 Prepare a full M&E plan for the project. Introduce the M&E component to each participant at the beginning of the training. Activity 3.7: Repeat items 3.1 to 3.6 for the three remaining training sessions. Activity 3.8: Establish a baseline for seizures of wildlife contraband for each participant. Activity 3.9: Register full details of each participant for future contact for M&E. Activity 3.10: Undertake follow-up communication with each participant monthly for 12 months to monitor uptake and effectiveness of the training	3.1 During 2020-2021, we consulted Mozambique Customs virtually to establish a point of contact to initiate the training for Customs officials. The training moved from in-person training to an online medium of instruction for the training. Mozambique was consulted through every step of the process as well as provided feedback for the topics incorporated into the training course. We received names, email addresses and contact numbers from 60 customs officials. However, only 56 officials were successfully enrolled on the training based on their working email addresses. From the 56 added to the training only 19 started the training. The table below shows all correspondence made towards the success of the training.

DATE	DETAILS	MEDIUM OF COMMUNICATION	PERSON
22/03/2021	Jeronimo redirects EWT's proposal for online learning to Ana da Cruz.	Email	KP to Ana
12/04/2021	Follow-up on previous email to Ana da Cruz.	Email	KP to Ana
APRIL-AUGUST 2021	Training dates and assistance requested by EWT from Mozambique – several delays.	Email	KP to Ana
15/11/2021	EWT confirms the training to be completed online using a Learning Management System.	Email	KP to Mozambique
13/12/2021	Herculano was appointed point of contact by Mozambique Customs to assist EWT with the roll-out of the online training. Jeronimo no longer the lead contact in Mozambique.	Email	Herculano to KP
22/12/2021	Virtual meeting to discuss the online training and topics for consideration in the training.	MS Teams	KP with Mozambique
21/01/2022	Planning meeting with Mozambique to discuss the topics, expert facilitators and materials that are designed specifically for the training.	MS Teams	KP with Mozambique

FEB 2022	All expert facilitators for the training secured.	Email and MS Teams meeting	KP and Facilitators
MARCH-JULY 2022	All filming for training videos completed by Video Branding Services at various locations. Presentations and assessments were provided to EWT by the facilitators.	Emails and WeTransfer	KP and Facilitators
AUGUST – DECEMBER 2022	Materials were translated into Mozambique Portuguese.	Emails and WeTransfer	Video Branding Services
01/08/2022	Official letter of invitation sent out to Mozambique (Dr Amélia Muendane) to request participants in the training on request by Herculano to lead the task in Mozambique.	Email	KP to Herculano
03/10/2022	Final list of 60 names is emailed to EWT.	Email	Herculano to KP
04/10/2022	Mozambique informed the 60 participants of the training and ask them to confirm their cell numbers.	Email	Herculano to Mozambique customs officials
06/10/2022	Final list with cell numbers sent to EWT.	Email	Herculano to KP
17/11/2022	Email explaining the delays of translating materials and request for meeting next week	Email	KP to Herculano
23/11/2022	Virtual meeting apologising for delays and showing the training platform to Herculano.	MS Teams Meeting	KP and Herculano
16/12/2022	Final version - all training videos in English and some with Portuguese subtitles sent to EWT.	WeTransfer	Video Branding Services
14/12/2022	Most of the content is uploaded onto TalentLMS for training to roll-out.	TalentLMS	KP
01/01/2023	Herculano is happy with the content, and we plan to roll out training in March 2023.	Email and MS Teams	KP and Herculano
FEB 2023	Herculano assists with translations of the assessments for the training.	Emails	KP and Herculano
FEB-MAR 2023	Movitel, Vodacom, Mtel were contacted individually to investigate data costs and send data from South Africa to Mozambique. Several methods to send airtime and data using the service providers in Mozambique failed, so we sort an alternative method to send airtime directly to the participants of the online training. They converted the airtime into data to use to do the training. The service provided acquired was DoctorSim. Airtime was sent directly to individual participants completing the	Emails and MS Teams Meeting. Cell numbers were confirmed when the WhatsApp group was created.	KP

	training and they had to have confirmed their contact numbers. Each official would receive MZN2500.00 of data for each month - April, May, June 2023.		
14/02-03/03/2023	Herculano arranges with Mozambique Customs to attend virtual registration and onboarding of online training.	Email and MS Teams	Herculano
08/03/2023	Registration (56) and onboarding (12 attended) Mozambique customs officials.	MS Teams and TalentLMS	KP and Herculano to translate
16/03/2023	Invite customs officials to a virtual meeting for an update on the training to EWT – 15 attended. Discussion around data costs and confirmation of cell numbers.	MS Teams Meeting	KP and Herculano to translate
16/03/2023	WhatsApp group set up with EWT to assist with the training.	WhatsApp	21 Customs officials in the group
MARCH 2023	KP emailed each participant individually to ask them to enrol in the training. Herculano also tried.	Email and WhatsApp	KP
01/04/2023	Airtime was sent out to 22 participants, however only 19 actively completed the training.	TalentLMS	KP

3.2 We had identified and secured species and subject matter experts for fourteen topics. Depending on the topic allocated, the facilitator provided a presentation that was pre-recorded in English/or Portuguese, a PDF copy of the presentation, a practical training video (when required and topic dependent), and an assessment. All developed content was uploaded to the TalentLMS Platform for the participants to view when enrolled in the training.

No.	Topic	Instructor
1	Introduction to wildlife trade	Dr Kerushka Pillay
2	Smuggling and illegal wildlife trade	Dr Carina Bruwer
3	Legislation	Dr David Ucama
4	Rhino horn and Ivory	Mr Ederich Grieb
5	Lions	Dr Vivienne Williams
6	Pangolins	Dr Ray Jansen
7	Bird Identification	EWT
8	Reptile species identification	Mr Chris Cooke
9	Amphibian species identification	Dr Jeanne Tarrant
10	Marine species identification	TRAFFIC
11	Timber identification	Ms Stephanie Dyer
12	Traditional medicine market trade	Dr Vivienne Williams
13	Law Enforcement Procedures	Dr David Ucama
14	Courtroom Procedures	Dr David Ucama

3.3 These logistics were no longer required because the training was completed online rather than in person.

3.4 This activity was no longer required because the training was completed online rather than in person. All materials developed were uploaded and are available on the online learning management system, TalentLMS.

3.5 The training was rolled out officially in March 2023-June 2023. The participants of the course completed the training virtually, in their own time and at their own pace. The theory component of each topic was completed first, then a practical video was watched, and an assessment was finally completed. The training was open for three months to give each of the participants enough time to complete the training regardless of their employment status.

3.6 Each participant had to complete a pre-assessment questionnaire of five questions to ascertain their current level of understanding and knowledge. Fourteen people completed the pre-assessment questionnaire. Eleven (78.6%) passed and four (21.4%) failed the assessment.

User	Date	Result	Score
lourenco Carvalho	08/03/2023, 17:26:08	Passed	100.00%
Herculano Cintura	08/03/2023, 17:29:21	Passed	50.00%
Amina Cossa	15/03/2023, 14:44:44	Passed	75.00%
Anselmo Fumo	20/03/2023, 14:43:04	Passed	50.00%
Felix Mussunza Graciano	24/03/2023, 13:40:21	Passed	75.00%
Ivete da Conceicao F de Jose	21/03/2023, 00:12:46	Passed	75.00%
Armindo L Lipanga	23/03/2023, 15:51:42	Not passed	25.00%
Laerson Rafael Liveve	08/03/2023, 17:29:31	Not passed	25.00%
Daniel Matola	09/03/2023, 10:58:33	Not passed	25.00%
Eugenio Alfredo Matola	08/03/2023, 20:02:11	Passed	50.00%
Guiomar Mutemba	09/04/2023, 12:00:47	Passed	100.00%
Josina Dulce Tinga	08/03/2023, 17:27:38	Passed	50.00%
Alexandre Wanela	08/03/2023, 17:24:30	Passed	75.00%
Ligio Brigildo Zaqueu	27/03/2023, 21:24:52	Passed	75.00%

		3.7 These logistics were adapted to online training. 3.8: A baseline for seizures of wildlife contraband for each participant could not be obtained. 3.9 For those that have registered and completed the training, we have full contact details for them to follow up for Monitoring and Evaluation purposes. We have already set-up an evaluation questionnaire of which the Mozambique customs officials will complete after they have finalised the training. So far, we have 3 responses. 3.10 This will be completed as a follow-up in upcoming three, six- and twelve-months period. We have an established WhatsApp group for ease of communication and accessibility.
Output 4. Transnational crime syndicates are disrupted through targeted, well-planned investigations aided by supply chain mapping	4.1 Law enforcement agencies (LEAs) use the information and analysis of supply chain mapping to identify at least one international trafficking syndicate and be in a position to arrest at least three high-level traffickers for use in prosecution by the end of Year 3;	4.1 A transnational crime syndicate suspect, ***Tran Kieu Trang*** was arrested on 09 November 2020 at Maputo airport destined for Ho Chi Minh, Vietnam with 4.3 kilograms of rhino horn, 127 lion claws and 36 lion teeth. This was a significant arrest and seizure whereby ANAC and their Vietnam counterparts are continuing with the investigation of this case with mentorship from Freeland.
	4.2 LEAs use the information from the analysis of the supply chain to identify and seize assets from at least three high-level traffickers by the end of year 3;	4.2 Facilitated by Freeland and conducted by Thailand's anti-money laundering authorities, a March 12, 2021 operation targeting Boonchai Bach, a Thai citizen, was conducted whereby 330 million-baht ($11 million) worth of assets were seized from the trafficker. This now sets the stage for additional assets to be identified in Mozambique and South Africa linked to the syndicate.
	4.3 LEA investigators collaborate and plan at least one cross continental joint investigation with common aims/goals using information from 'mapping the supply	4.3 During the BCWG conducted in 13-15 April 2021 including the mapping presentation to the BCWG on 14 June specific high profile wildlife criminal cases and syndicate members were discussed by Lusaka Agreement Task Force (LATF), South African and Mozambique authorities. Three well-planned collaborative cross border investigative strategies were formulated with critical information and intelligence shared by the BCWG. Tasks and responsibilities for South African and

chain' by the end of Year 3	Mozambique law enforcement were agreed and a memorandum was drafted by Lusaka Agreement Task Force and submitted to the BCWG members.
Activity 4.1 Log verified information on locations of the consolidation points, points of departure, transit routes and the scale of quantities poached and trafficked.	Freeland, during the course of the Program gathered information and intelligence from various law enforcement agencies in Thailand, Tanzania, Mozambique and South Africa. The additional method of intelligence gathering by Freeland intelligence investigators was by conducting interviews with key stakeholders and sources by Zoom conference calls and in-person. Freeland conducted and created intelligence leads which were analysed and confirmed through the Freeland Analytical Centre of Excellence (ACE) Nuix data platform. These intelligence leads were presented to the law enforcement officials from Tanzania, Mozambique and South Africa during the Big Cats Working Group workshop held in Karingani, Mozambique during 13-15 April 2021.
Activity 4.2 Assess linkages of other associated crimes.	Examples of linkages of associated crimes were provided in the report: An arrest made during the project period was of a high-profile wildlife trafficking syndicate member known as ***Tran Kieu Trang*** who was arrested on 09 November 2020 at Maputo airport destined for Ho Chi Minh, Vietnam with 4.3 kilograms of rhino horn, 127 lion claws and 36 lion teeth. During Freeland's collection and analysis of intelligence, links between a known wildlife trafficker, Simon Ernesto Valoyi who is based between Massinger, Mozambique and Phalaborwa, South Africa (known strongholds for wildlife traffickers in the GLTNP – map as below), Mozambique and a known narcotics trafficker, Mohamed Bashir Suleman located in Maputo, Mozambique was investigated by Freeland in conjunction with ANAC. Freeland presented to participants at the BCWG workshop 13-15 April 2021 and the mapping presentation conducted on 14 June 2021 included an analysis of associated crimes both in South East Asia and Southern Africa which aiding law enforcement in their current lion parts trafficking investigations, prosecutions and identifying / investigating criminal syndicate asset forfeitures.
Activity 4.3 Confirm data by means of analysis through Freeland and IBM / i2's Analytical Centres of Excellence (ACE).	Freeland's partner Nuix provided their technology and expertise by providing solutions that power the fight against wildlife trafficking. The Nuix platform used during this program structured the data gathered and extracted relevant data which was shared with the law enforcement agencies during the weekly / bi-weekly conference calls, the BGWG workshop and the mapping presentation. The analysed product was shared with ANAC which Freeland used to create maps of transit routes and supply chains which was also presented at the BCWG workshop and the Mapping presentation to on 14 June 2021.
Activity 4.4 Send analysed information to trusted LEAs for actioning or for verification purposes, at least twice per month. Open source information confirmed and verified.	Based on Freeland's ACET intelligence report methodology an updated bi-weekly intelligence report was forwarded to ANAC and discussed with them during the weekly / bi-weekly zoom calls. Due to the sensitive nature of the intelligence reports ANAC, during the weekly calls, expressed that the reports were discussed in detail and in person during the BCWG workshop with Freeland and their Tanzania and South African counterparts. This was achieved and important discussions and strategies for furthering their investigations on specific cases with the inclusion of verbal agreements (managed by Lusaka Agreement Task Force) between the relevant countries in tasking and responsibilities for their continued investigations.
Activity 4.5 Maps of transit routes and supply chains used to assist LEAs to target upper-level traffickers and aids in development of complex transnational investigation strategy.	Information and intelligence was gathered and analysed relating to consolidation points, points of departure, transit routes and the scale of quantities poached and trafficked within and associated with the Limpopo Trans-Frontier National Park. Maps related to the supply chain were created and presented to ANAC and other stakeholders on 14 June 2021 via dedicated virtual platform conference call. The detailed mapping presentation comprises of 79 PowerPoint slides.

Activity 4.6 Add verified information to the ACE database on a bi-weekly basis. Open feedback loop with LEAs participating in information sharing sessions.	Information obtained during the weekly / bi-weekly zoom calls with ANAC and information obtained from confidential sources was verified and added to the ACET Nuix database on a bi-weekly basis for the course of Freeland's project duration. The analysed data was provided to ANAC and law enforcement in Thailand via the Intelligence Reports. ANAC received updated reports on a bi-weekly basis and during the weekly / bi-weekly calls. Freeland engaged and shared with trusted South African law enforcement officials during the BCWG workshop held during 13-15 April 2021.
Activity 4.7 Send analysed information to trusted LEAs to be actioned or for verification purposes at least twice per month.	See Activity 4.4
Activity 4.8 Share recommendations with LEAs to provide opportunities for feedback.	During the project duration, weekly and sometimes due to availability reasons bi-weekly, calls were conducted with ANAC Mozambique. Freeland made continuous recommendations to ANAC regarding the information relating to lion parts illegal poaching and trafficking within Mozambique and the Limpopo Trans-Frontier National park. Freeland, in collaboration with Lusaka Agreement Task Force, USHSI attaché, Grace Farms Foundations financial investigation expert and Basel Governance Institute Asset forfeiture expert provided mentorship and shared recommendations during the participating countries group sharing information sessions enabling the group to prepare strategic collaborative investigations with associated responsibilities and timelines on identified lion parts traffickers and poachers within the GLTNP region. Law enforcement agencies were provided the opportunity to give feedback during the weekly / bi-weekly calls, the face-to-face BCWG workshop and the mapping presentation held via virtual platform.

Annex 3 Standard Indicators

The Biodiversity Challenge Funds (BCFs) use high quality and accessible Monitoring, Evaluation and Learning (MEL) to enable scaling, replication and increase the impact of the funds and the projects we support.

By asking project teams to align indicators with the IWT Challenge Fund Standard Indicators, we aim to increase our contribution to the global evidence base for activities that support biodiversity conservation, poverty reduction and capability & capacity.

The tables below are provided to assist project teams in reporting against Standard Indicators. Please report against the Standard Indicators that you have selected specifically for your project in Table 1 below. Refer to the Standard Indicator Guidance & Menu available on the IWT Challenge Fund website for guidance on how to select indicators, as well as how to disaggregate reporting within your chosen indicators.

We recognise that our menu cannot cover all the potential monitoring needs for all projects – where necessary you can select indicators from other sources or develop your own. See our BCF MEL guidance on best practices for selecting and developing indicators.

Table 1   Project Standard Indicators

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
IWTCF-B01	1.1 At least 40 PPF rangers receive annual refresher training through the Southern African Wildlife College (SAWC) by the end of Year 3.	Number of people trained in law enforcement skills.	Number	Gender; Age Group; Stakeholder group: Indigenous Peoples, Local Communities, Nationals, public sector, civil society, private sector; Type of Law Enforcement training should be outlined.		4 Fem 103 Male Rangers from loal commun ities			40
IWTCF-B01	1.2 Number of lion protection units (comprising of 4 members each) with capacity to prevent and detect lion poaching in the GLTP has been increased from 1 unit to 3 by the end of Year 3.	Number of people trained in law enforcement skills.	Number	Units	1			1	3
IWTCF-B01	1.3 All members (12) of the lion protection units have the skills and knowledge necessary to prevent and detect lion poaching in the GLTP, through targeted refresher training and other value-added training (e.g., SMART) by the end of year 3.	Number of people trained in law enforcement skills	Number	Units	1			1	3
IWTCF-B01	1.4 A knowledge exchange is undertaken with two senior Black Mambas with communities surrounding the project area and female rangers to inspire more	Number of people trained in law enforcement skills.	Number	Females				0	2

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
	women from local communities to pursue a career as a ranger.								
IWTCF-A13	1.5 Job creation results in 12 households benefiting from increased basic livelihood conditions, which include education, health, household needs (such as energy and drinking water). The extent to which this will be achieved depends on existing infrastructure, which will be detailed in a project situational analysis developed by the end of Year 1.	Number of households that have experienced an increase in household income as a result of involvement.	Number	Households		8		8	12
No standard	1.6 At least 8 lion tracking collars are deployed and providing daily GPS coordinates by the end of year 2	No standard indicator. Number of individuals of focal species monitored	Number	Number of lions tracked			5		8
No standard	1.7 At least one territory of a resident pride extirpated in Mozambique through poaching is naturally recolonised by dispersing animals from contiguous areas by the end Year 3	No standard indicator. Number of groups of focal species recolonising conservation area	Number	Number of lion prides			1		1
No standard	1.8 The survival rate of collared lions increases to >60% per annum (see Q16) by the end Year 3	No standard indicator. Survival of monitored focal species	Number	Number of tracked lions surviving			5		5
IWTCF-B01	2.1 At least 25 law enforcement officials operating in the GLTP have successfully	Number of people trained in law enforcement skills.	Number	Gender; Age Group;			47 female	417	25

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
	completed one 2-day PIT course by the end of Year 1			Stakeholder group: Indigenous Peoples, Local Communities, Nationals, public sector, civil society, private sector; Type of Law Enforcement training should be outlined.			369 male Poison response training		
No standard	2.2 At least one poison reaction kit and aide memoire per trainee distributed at the end of each training intervention to provide additional support post training by the end of Year 1.	No standard indicator. Law enforcement equipment distributed to rangers	Number	72 poison reaction kits and 236 aide memoirs were distributed across the GLTFCA.			72		
IWTCF-B02	2.3 A Poison Response Strategy (PRS) which facilitates rapid response and effective management of poisoning events involving all relevant role-players has been drafted by the end of Year 1.	Number of new/improved site management plans available and endorsed	Number	Languages (local/other); Type of management plans (i.e. enforcement protocols).			2		4
IWTCF-B01	3.1 60 customs officials from Mozambique trained to identify CITES listed species passing through borders	Number of people trained in law enforcement skills	People	Men Women Stakeholder gp: Mozambique customs officials Title of training: Flagship Species Identification Training Programmes / Programa de Treinamento de	0 0	0 0	16 3 58 enrolled, 19 started	16 3 Total trained = 19	60

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
				Identificação e Espécies Flagship (FSITP101-MZ)					
IWTCF-B05	3.1 Online training materials for CITES species identification developed and available in English and Portuguese	Number of best practice guides and knowledge products (i.e. product identification etc.) published and endorsed	Number	For 14 topics on CITES species identification, training presentations and training videos were developed in English and translated to Portuguese. We also had developed assessments for the topics in English and Portuguese.			Presentations: Training videos: Assessments: 19	18 9 19	
IWTCF-B01	3.2 30 customs officials receive training to identify CITES species from customs officials trained by the EWT	Number of people trained in law enforcement skills	People	Men Women Stakeholder gp: Mozambique customs officials Title of training: Flagship Species Identification Training Programmes / Programa de Treinamento de Identificação e Espécies Flagship (FSITP101-MZ)			16 3 58 enrolled, 19 started	16 3 Total trained = 19	
IWTCF-B07	3.3 Number of seizures of wildlife contraband across the GLTP increases by at least 10% relative to baseline historical seizure data by the end of Year 3	Number of illegal wildlife products / shipments detected	Number	Number of seizures by species	0	0	0	Not measured	
IWTCF-B06	4.1 Law enforcement agencies (LEAs) use the information and analysis of supply chain	Number of criminal networks/ trade routes mapped/identified.	Number	A transnational crime syndicate suspect was		1			

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
	mapping to identify at least one international trafficking syndicate and be in a position to arrest at least three high-level traffickers for use in prosecution by the end of Year 3;			arrested on 09 November 2020 at Maputo airport					
IWTCF-B07	4.2 LEAs use the information from the analysis of the supply chain to identify and seize assets from at least three high-level traffickers by the end of year 3;	Number of illegal wildlife products/shipments detected.	Number	$11 million worth of assets were seized from the trafficker.		$11 million			
IWTCF-B06	4.3 LEA investigators collaborate and plan at least one cross continental joint investigation with common aims/goals using information from 'mapping the supply chain' by the end of Year 3	Number of criminal networks/ trade routes mapped/identified.	Number	Collaborative cross border investigative strategies formulated		3			

In addition to reporting any information on publications under relevant standard indicators, in Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, e.g. title, name of publisher, contact details, cost. Mark with an asterisk (*) all publications and other material that you have included with this report.

Table 2   Publications

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

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	Yes
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	
If you are submitting photos for publicity purposes, **do these meet the outlined requirements (see section 10)?**	No
Have you included means of verification? You should 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 need 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. However, we would expect that most material will now be electronic.	No
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 13)?	
Have you involved your partners in preparation of the report and named the main contributors	No and Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	