

## Darwin Plus Main & Strategic: Annual Report

To be completed with reference to the "Project Reporting Information Note"  
(<https://darwinplus.org.uk/resources/information-notes>)

It is expected that this report will be a **maximum of 20 pages** in length, excluding annexes)

**Submission Deadline: 30<sup>th</sup> April 2025**

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### Darwin Plus Project Information

Scheme (Main or Strategic)	Main
Project reference	DPLUS163
Project title	Preserving endemic threatened wildlife populations through effective protected area management.
Territory(ies)	Cayman Islands
Lead Organisation	National Trust for the Cayman Islands (NTCI)
Project partner(s)	Royal Society for the Protection of Birds (RSPB)
Darwin Plus grant value	
Start/end dates of project	1 April 2022 – 30 September 2025
Reporting period (e.g. Apr 2024-Mar 2025) and number (e.g. Annual Report 1, 2)	1 April 2024 – 31 March 2025
Project Leader name	Emily
Project website/blog/social media	<a href="http://www.nationaltrust.org.ky">http://www.nationaltrust.org.ky</a>
Report author(s) and date	Emily Louise Bill - April 30, 2025

### 1. Project summary

Grand Cayman is home to globally significant biodiversity, including multiple endemic species found nowhere else on Earth. Chief among them are the critically endangered Grand Cayman blue iguana (*Cyclura lewisi*) and the Grand Cayman parrot (*Amazona leucocephala caymanensis*), both of which are largely confined to fragmented protected areas. These areas face mounting threats from invasive alien species, habitat loss, and the growing impacts of climate change, such as increased storm intensity and seasonal flooding. These pressures pose an urgent challenge to the long-term viability of Cayman's endemic wildlife and the ecological integrity of its protected lands.

This project aims to strengthen the resilience and effectiveness of Grand Cayman's protected area network by enhancing in-country capacity, filling key ecological knowledge gaps, and implementing targeted conservation strategies across two priority sites: the Salina Reserve and the Colliers Wilderness Reserve (Figure 1).

Despite decades of conservation investment, recent data—including from camera traps and distance sampling—highlight how little is known about the successful establishment of young iguanas in the wild, prompting an urgent need to better understand habitat use, survival, and emerging threats. The project addresses these issues through a holistic, science-based approach. Core activities include the development and implementation of site-specific management plans, long-term biodiversity monitoring, GPS tracking of wild and released iguanas, and invasive predator control.

By building on over 20 years of field experience and integrating feedback from partner institutions, this project also scales up proven approaches—such as targeted invasive predator trapping, camera trapping for population estimates, and habitat-specific conservation actions—to enhance management effectiveness across sites. This work ultimately benefits wildlife managers, conservation partners, land-

use planners, and the Caymanian public, helping to ensure that Grand Cayman's protected areas can continue to safeguard unique biodiversity in the face of escalating environmental pressures.

## 2. Project stakeholders/partners

The National Trust for the Cayman Islands (NTCI) is the lead organization for this project, responsible for managing Grand Cayman's terrestrial flagship protected areas, including Salina Reserve and Colliers Wilderness Reserve. In Year 3, with the appointment of a Blue Iguana Conservation (BIC) Manager and Protected Areas Project Manager, internal capacity was strengthened and coordination across stakeholders was re-established.

The project is rooted in conservation priorities identified through decades of fieldwork and stakeholder engagement. Partners — including government agencies, NGOs, and academic institutions — have been involved in project planning, monitoring, and evaluation through bi-weekly check-ins, joint planning sessions, and collaborative fieldwork.

**Royal Society for the Protection of Birds (RSPB):** As the UK-based technical partner, RSPB provided critical support this year in adaptive project management, technical mentoring, and training. RSPB staff contributed to work planning, biodiversity monitoring design, protected area management planning, and the drafting of technical reports. Regular virtual meetings and in-person visits have strengthened project delivery and built local capacity.

**Cayman Islands Government, Department of Environment (DoE):** DoE remains an essential technical partner. In Year 3, they contributed to blue iguana camera trap monitoring, biodiversity survey design, invasive predator management strategies, and GPS tracking development. They also supported a preliminary parrot population estimate for the project's two reserves, helping strengthen Important Bird Area (IBA) species monitoring in response to Year 2 review recommendations.

**Wildlife Conservation Society (WCS – Bronx Zoo):** WCS provided veterinary expertise to assist with blue iguana health assessments and continued to support the development of disease screening protocols. This year, WCS also helped initiate a new collaboration with the Cayman Islands Health Services Authority to pursue on-island molecular diagnostics, which would significantly strengthen long-term conservation capacity.

**St. Matthew's University (SMU):** SMU expanded its role by providing student support for disease screening and camera trap data processing. Staff veterinarians contributed to field health assessments, and SMU's involvement continues to build local technical expertise in wildlife health and monitoring.

### **3. Project progress**

#### **3.1 Progress in carrying out project Activities**

##### **Output 1: Enhance in-Territory capability to restore, monitor and manage protected areas.**

##### ***Activity 1.1 - Recruitment of Protected Areas Project Manager and seasonal Field Assistants as needed.***

In Year 1, the Field Officer and Assistant Field Officer positions were successfully recruited to support the implementation of project activities across protected areas. However, the Field Officer initially hired in 2022 was unable to relocate to Grand Cayman due to delays in obtaining a work permit. Although they contributed remotely for several months, this limitation significantly impacted their ability to deliver field-based activities, and they ultimately resigned in June 2023. A second Field Officer was recruited and began work on-island in July 2023 but resigned in September 2023. Since then, the Field Officer position has remained vacant despite further recruitment efforts. Compounding these staffing challenges, the BIC Manager, who also served as Project Lead, left the role in July 2023. A replacement was appointed and served from July to December 2023 but also resigned, resulting in further disruption to senior project oversight.

A key lesson identified from these challenges was that the original Field Officer role was not appropriately aligned with the actual needs of the project, which required significant coordination, reporting, and administrative responsibilities in addition to fieldwork. This misalignment contributed to turnover and delays in implementation. In March 2024, following an internal review conducted by NTCI in collaboration with RSPB, the Field Officer role was restructured into a Protected Areas Project Manager position. This new role was designed to focus on project coordination, administration, reporting, and partner engagement, while still supporting the delivery of key technical activities.

Although both the BIC Manager and the new Protected Areas Project Manager roles were advertised early in the 2024/25 fiscal year, recruitment and onboarding were delayed due to the small local candidate pool, and lengthy work permit processes. The BIC Manager was appointed in August 2024, and the Protected Areas Project Manager was hired in September 2024. Their signed contracts are on file and available for review.

The Protected Areas Project Manager now holds responsibility for day-to-day implementation of activities under this grant, including planning, administration, coordination, and reporting. The BIC Manager serves as their line manager and retains overall strategic oversight, including support with financial management and external representation. The Assistant Field Officer position remains unfilled. As outlined in the October 2024 Change Request, the salary originally allocated to this post has been redirected to support the hiring of seasonal field assistants and specialist consultants during peak activity periods (e.g., camera trapping, GPS tagging, trail maintenance, invasive predator control). This approach provides the flexibility needed to respond to the seasonal nature of fieldwork while maintaining core project management capacity within the team.

##### ***Activity 1.2 - Develop training course materials and content.***

##### ***Activity 1.3 - Minimum of 7 in-Territory staff, students and volunteers attend training course.***

Building on the training delivery and capacity-building efforts initiated in Years 1 and 2, the project significantly strengthened its formal training program in Year 3. With the appointment of the BIC Manager in August 2024 and the Protected Areas Project Manager in September 2024, a full review of staff, volunteer, and partner training needs was carried out. This led to the development of a structured training plan, which is included in Annex 4.1 and outlines both completed and planned sessions across key areas of protected area management, species monitoring, field safety, and data handling. This strategic and collaborative approach to training and mentoring is helping to establish lasting conservation capacity within the Cayman Islands and ensure sustainability beyond the project lifecycle.

Supporting the training sessions, a range of training materials were developed or updated, including protocols for camera trapping, invasive predator control, disease sample collection, and patrol data recording. Notetaking training for field staff was also conducted, with the development of standardized field notebooks which include reminder sheets to help guide consistent data collection during protected area site visits.

Invasive predator management training was delivered in partnership with the DoE, covering trap placement, baiting, humane capture, and follow-up procedures. Staff completed certified First Aid, CPR,

and AED training through the Health & Safety Institute in February 2025. This improved in-field preparedness and informed internal safety protocols. Additional safety training is scheduled for the coming months. ZIMS (Zoological Information Management System) training was also initiated for the Senior Warden, with an introductory session held on 14 March 2025, led by the Facilities and Protected Areas Manager and a visiting volunteer from the Milwaukee Zoo. This training supports accurate recordkeeping for captive blue iguanas and aligns with broader monitoring goals under the project. Finally, the Protected Areas Project Manager participated in a Biodiversity Challenge Fund Project Refresher Webinar and a Gender Equality and Social Inclusion Webinar in March 2025, further supporting their development in project coordination and delivery.

In addition to formal training, the project team benefited from regular technical mentoring provided by the RSPB. Bi-monthly virtual meetings were held with the project's technical lead to providing support on project delivery, protected area monitoring, and reporting. Targeted in-person mentoring also took place during visits from RSPB staff members, who focused on technical and field implementation, and supported the team with project management planning and development of protected area management plans.

During 2024/25, seven in-territory staff have received training through the project, with further sessions planned during the final six months. Participant sign-off sheets have been retained and are included in Annex 4.2.

***Activity 1.4 - Samples are collected from target species within both protected areas for disease analysis.***

***Activity 1.5 - Disease samples are sent off island for detailed analysis and results are reported and shared.***

In Year 3, preparations for the next phase of disease sampling advanced through continued collaboration with the WCS at the Bronx Zoo, particularly their Director of the Molecular Laboratory. Target species identified for screening include 50 Green Iguanas, 40 Anoles, and 20 Cayman Racers. Paired oral and cloacal swabs from each animal will be collected and pooled into sets of five for testing. These samples will contribute to improved understanding of potential *Helicobacter* transmission and broader disease dynamics among native and invasive herpetofauna in the Cayman Islands. Sample collection will be conducted in partnership with SMU School of Veterinary Medicine, whose staff and students will assist with fieldwork and potentially support laboratory analysis. This partnership not only expands the project's reach but also builds valuable in-country experience in wildlife health research. While sampling was scheduled earlier in the year, progress was delayed due to the time required to acquire necessary materials. These items had to be sourced off-island and are proving to take longer than anticipated to arrive. Once materials are received, the project will proceed with sample collection.

In early 2025, a collaborative meeting was held between NTCI, WCS, and local stakeholders to explore the possibility of establishing on-island molecular testing capacity. WCS has since shared protocols with the Cayman Islands Health Services Authority Molecular Biology Laboratory, and the lab manager is working to implement the required assays. The aim is to develop the capacity to conduct *Helicobacter* testing locally, which would reduce the need for international sample shipment and support long-term conservation infrastructure. While sample collection will proceed as planned, samples will be stored appropriately, and shipment off-island will be postponed pending a decision on the feasibility of local testing. If local testing is not operational by July 2025, samples will be shipped internationally to ensure analysis is completed before the project end in September 2025. This approach ensures continuity in fieldwork while aligning with the project's goal to build sustainable local capacity.

***Activity 1.6 - Two patrols are conducted in each protected area annually.***

***Activity 1.10 - Boundaries are clearly marked and accessible for monitoring in each protected area, if possible. A drone survey will be completed annually for the entire boundary of the Salina Reserve and the Colliers Wilderness Reserve.***

In Year 3, the project continued with ad hoc protected area patrols at the Salina Reserve and the Colliers Wilderness Reserve, consistent with previous years. These patrols were typically tied to other fieldwork activities and not consistently tracked. In response, the team developed new systems to formalize and strengthen patrol monitoring and reporting.

A protected area patrol database was created and launched in January 2025 to enable consistent logging of patrol activities. Alongside this, field staff were issued updated field notebooks containing reminder sheets that outline key information to record during site visits—including sightings of invasive predators, signs of illegal access, trail conditions, and notable wildlife (an example of the field notebook reminder sheet has been included in Annex 4.3). Initial uptake of these tools has been sporadic, and as a result, the

number of patrols completed in each protected area this year is difficult to determine. To improve consistency and data quality, additional staff training and reinforcement of the patrol recording process are planned in the coming months.

In parallel, a system of monthly foot patrols for each reserve is being considered and has been included in the draft form in the Salina Reserve and the Colliers Wilderness Reserve Management Plans. This proposal remains under internal review, and final patrol schedules will be confirmed once the management plans are approved, and implementation begins.

While it remains impractical to demarcate or patrol all boundaries on foot—due to dense vegetation, difficult terrain, and seasonal flooding, annual drone surveillance has been adopted as a practical alternative. Drone flights were completed in July 2024 (Colliers Wilderness Reserve) and December 2024 (Salina Reserve), with footage reviewed by the project team in March 2025 to identify signs of encroachment, habitat disturbance, or access points. Summary findings are included in Annex 4.4. No concerns were identified at the Colliers Wilderness Reserve, while one potential disturbance area was noted at the Salina Reserve. A ground-truthing visit is planned for May 2025 to further investigate the site and confirm any required management actions. Drone operation training for staff is scheduled for mid-2025 to build internal capacity and ensure ongoing boundary monitoring.

***Activity 1.7 - Suitable fixed plots within each of the protected areas are selected and cleared for installation of weather stations.***

***Activity 1.8 - Weather stations are installed in each protected area and climate data is recorded.***

These activities were reported as completed in Year 1. Fixed plots were selected and cleared in both the Salina Reserve and the Colliers Wilderness Reserve, and weather stations have been installed to enable long-term climate monitoring. The stations are programmed to record monthly climate data, supporting habitat assessment and adaptive management goals. Examples of data collected from the Salina Reserve were submitted with the Year 2 annual report. Installation photos and GPS coordinates for both sites are available upon request.

***Activity 1.9 - Trails are established and maintained for each protected area.***

Trails have been established and are actively maintained in both protected areas. In Year 3, maintenance activities were initially delayed due to staffing vacancies, particularly in the first half of the year. However, with the appointments of the BIC Manager, the Protected Areas Project Manager, and the Facilities and Protected Areas Manager, regular maintenance efforts resumed across both Salina Reserve and Colliers Wilderness Reserve.

This work has been essential for facilitating field activities such as camera trap deployment and will support upcoming biodiversity surveys and invasive predator control efforts. A map of trail locations is available upon request.

**Output 2: Management plans for two key protected areas produced and implemented with targeted conservation actions for the focal species: Grand Cayman blue iguana.**

***Activity 2.1 - Development and implementation of management plan for the Colliers Wilderness Reserve.***

***Activity 2.2 - Development and implementation of management plan for the Salina Reserve.***

During Year 1, baseline information was collected, and planning frameworks were developed to guide the drafting of site-specific management plans for both the Salina Reserve and the Colliers Wilderness Reserve. By the end of Year 2, working drafts for both protected areas management plans were underway, and were submitted with the 2024 Annual Report.

In Year 3, significant progress was made on the Salina Reserve Management Plan. The draft was reviewed by members of NTCI's Environmental Advisory Committee, followed by a staff review conducted by NTCI personnel. Feedback from both groups was consolidated and used to refine the plan's structure, content, and overall clarity. These revisions were guided by a shared commitment to producing a concise, strategic document that can be actively used by staff, volunteers, and Council. A summary table outlining the key updates and changes made since the previous draft is included in Annex 4.5. A final review by staff, the Environmental Advisory Committee, and relevant District Committees is scheduled before submission to the Trust Council for formal approval, anticipated in late summer 2025.

Although an updated draft has not yet been produced for the Colliers Wilderness Reserve, a similar internal review and restructuring process will be applied. Lessons learned from the Salina Reserve management

planning process—including the two-document format and integration of an annual review mechanism—will inform the development of the Colliers Wilderness Reserve management plan. This work is scheduled for the final quarter of the project period.

***Activity 2.3 - Distance sampling survey carried out in the Colliers Wilderness Reserve to monitor blue iguana population.***

***Activity 2.4 - Distance sampling survey carried out in the Salina Reserve to monitor blue iguana population.***

Distance sampling surveys were originally included as a method for monitoring blue iguana populations in both the Colliers Wilderness Reserve and the Salina Reserve. These surveys were completed in both sites in Year 2, with support from the DoE and trained volunteers. However, as outlined in the Year 2 annual report, the project team, in consultation with technical partners, determined that distance sampling was not producing reliable or consistent results due to the challenging terrain, dense vegetation, and the behaviour of blue iguanas.

As a result, it was agreed that wildlife camera trapping offers a more robust and scalable method for monitoring the blue iguana population across both reserves. Camera trap data allows for year-round passive observation, reduces observer bias, and captures a wider range of activity, including nocturnal or low-movement individuals that may be missed during transect walks. No further distance sampling surveys were conducted in Year 3. Instead, efforts were focused on managing, analysing, and supplementing camera trap data already collected across both protected areas (see Activity 2.5 update for more information). This revised approach aligns with the project's broader shift toward non-invasive, technology-driven monitoring techniques.

***Activity 2.5 - Camera trap grid designed and set up to monitor population abundance of blue iguanas within the protected areas.***

Building on foundational work carried out in Years 1 and 2, camera trap-based monitoring continued to be the primary tool for estimating blue iguana population abundance within the project's focal protected areas. This method was selected over traditional distance sampling following a detailed comparison conducted in Year 1, which found camera trapping to be more reliable and efficient for use in the dense terrain and challenging conditions of both the Salina Reserve and the Colliers Wilderness Reserve.

In March 2024, a standardized camera grid was deployed in the Colliers Wilderness Reserve. A total of 46 cameras were installed across 23 paired stations, with each pair set to face one another to capture both flanks of any passing iguanas. The grid was specifically timed to coincide with the blue iguana breeding season, enhancing the likelihood of capturing active individuals and maximizing data collection. Deployment and retrieval were supported by NTCl staff, the Cayman Islands Regiment, and the DoE.

Data processing followed a two-stage approach: images were initially sorted by students from SMU, followed by in-depth analysis by the BIC wardens. A total of 37 unique blue iguanas were identified—31 adult males, 5 adult females, and 1 unsexed adult. Notably, no hatchlings or subadults were recorded, reinforcing concerns about recruitment and long-term population sustainability. The camera traps also documented feral cats, and invasive green iguanas, and a range of native and non-native wildlife.

Following initial analysis, the dataset was prepared for external review by researchers from East Stroudsburg University of Pennsylvania and the University of Georgia. These experts will verify species identifications and conduct mark-recapture modelling to estimate population abundance within the reserve. This collaborative validation step will strengthen the scientific rigor of the findings and support long-term monitoring efforts. A full field report on the 2024 Colliers Wilderness Reserve camera trapping effort is included in Annex 4.6.

In March 2025, a new round of camera trapping was initiated in the Salina Reserve. Fifty cameras were deployed across 25 paired locations, using the same methodology and spatial layout as in the Colliers Wilderness Reserve to ensure consistency in data collection. This round of monitoring is ongoing, and results will be analysed using the same dual-stage approach. Data will again feed into mark-recapture models and will inform upcoming protected area management planning, IUCN Red List assessments, and the NCAP for the species.

***Activity 2.6 - Capture and tag wild adult iguana for GPS tracking for age and sex survivability and dispersal emigration.***

In Year 1, seven GPS-VHF units were procured to support the tracking of wild adult blue iguanas within the project's focal protected areas. These devices, comprising GPS data loggers and VHF transmitters, were intended to generate detailed data on habitat use, dispersal, and survivorship in the wild. While both components were ordered in Year 1, only the GPS loggers were delivered at that time. The VHF transmitters could not be manufactured until the necessary licensing for their operating frequencies was obtained—a step delayed due to staff turnover. This oversight was identified and resolved in Year 3, with the license secured and included in Annex 4.7. The VHF transmitters are now in production and en route from the manufacturer.

Efforts to develop and test a suitable attachment method resumed in Year 3. Consultations with external telemetry specialists and staff from the DoE confirmed that the existing 95.5 g GPS-VHF units would only be appropriate for the large adult males. Based on this guidance, DoE also recommended sourcing lighter 6.4 g GPS units for use on smaller individuals. This recommendation has been formally integrated into a Change Request submitted in March 2025.

A prototype harness was developed in early 2025 using a “saddlebag” design with a dual-pouch system affixed via epoxy and superglue. This design was tested on 9 April 2025 at the BIC facility using a large adult male. During testing, weights equivalent to both the GPS logger and VHF transmitter were used to simulate full deployment. The animal was held and restrained by four handlers for over 20 minutes during attachment—a duration that raised concerns about animal welfare and the practicality of field deployment. The following day, the epoxy-bonded side of the pack failed completely, and the entire harness detached by 4:30 p.m. on 10 April, less than 24 hours after application. These results are included in the GPS Tracking Field Report in Annex 4.8.

The initial test raised several critical concerns. Confidence in the durability of the current harness design is low, as the unit detached within 24 hours. The requirement for multiple handlers and extended restraint time raises significant welfare and logistical challenges. Additionally, the adhesive attachment approach proved unreliable even under captive conditions, casting further doubt on its suitability for wild use where follow-up monitoring would be limited.

Given these issues, the project is now re-evaluating the feasibility of deploying the existing 95.5 g units in the field. Follow-up discussions with external experts are underway to explore alternative attachment techniques used in similar iguana species. Planned next steps include testing lighter 6.4 g GPS units on smaller individuals, using revised methods that may offer a more viable and less invasive solution. These trials are scheduled for the final months of the project.

***Activity 2.7 - Use data collected from studies to identify preferred habitat type for adult iguanas.***

***Activity 2.8 - Look at preferred habitat differences between wild born vs released iguanas.***

Progress on these activities remains dependent on the successful deployment of GPS tracking units (see Activity 2.6). While initial planning and equipment procurement were completed in Years 1 and 2, no habitat use data have yet been collected due to challenges with harness attachment. A prototype tested in April 2025 detached within 24 hours, and concerns remain regarding its suitability for field deployment on wild adult iguanas.

To address this, 15 lightweight 6.4 g GPS units have now been purchased. As these units had to be sourced off island, the project is currently awaiting their arrival. Once received, testing of revised attachment methods will begin. Importantly, these units are designed to be affixed directly to the iguanas without the need for a harness, reducing handling time and complexity. The units will be deployed on juvenile blue iguanas being released from the BIC facility, eliminating the need to capture individuals from the wild.

While this approach deviates from the original research focus—understanding habitat use in wild, adult iguanas—it will nonetheless generate valuable insights into the movements and survivorship of released juveniles. This is especially relevant considering recent camera trap findings, which recorded no hatchlings or subadults in the Colliers Wilderness Reserve, highlighting ongoing concerns about recruitment. Tracking these released juveniles may help clarify movement and survival of released iguanas and inform future management interventions.

### **Activity 2.9 - Develop GIS database.**

In Year 1, spatial data needs were identified to support protected area management and species monitoring, and preliminary shapefiles (e.g., trail routes, camera trap locations) were compiled. In Year 2, this work continued informally alongside field activities, but the project lacked a centralized GIS system or dedicated staff capacity to develop a structured database.

In Year 3, progress was made with the recruitment of the Protected Areas Project Manager, who holds GIS experience. An ArcGIS Pro license was purchased from ESRI, and the process of compiling and organizing existing spatial data into a formal GIS database began. This includes importing shapefiles related to protected area boundaries, trails, camera trap grids, invasive predator control points, and biodiversity survey locations.

Progress has been steady but remains ongoing. Some key datasets, particularly older files or data previously held in non-GIS formats—have proven difficult to locate. To address this, NTCI has contacted the DoE to help identify and fill known data gaps. In the remaining months of the project, efforts will be focused on finalizing the GIS system and producing a comprehensive protected areas spatial data inventory, which will catalogue all included datasets and their attributes. This centralized database will support ongoing management planning, ecological monitoring, and project reporting, while also forming a long-term resource for NTCI and its partners beyond the project's end.

### **Activity 2.10 - Analyse data and use results to quantify and identify land and suitable habitat options to expand, restore and establish protected areas.**

### **Activity 2.11 - Use data collected to identify important wildlife corridors for blue iguana movement.**

These activities rely on GPS tracking data to assess habitat use and movement patterns. As no tracking data has been collected to date due to issues with harness attachment (see Activity 2.6), analysis cannot yet begin. Until GPS units can be successfully deployed in the field, both activities remain on hold. Work is ongoing to refine attachment methods and test lighter units.

### **2.12 Update the Red List assessment for the blue iguana.**

### **2.13 Complete National Conservation Action Plan for the blue iguana.**

While these two activities were originally listed in the grant application, it has since been clarified that NTCI is not the lead agency responsible for completing the IUCN Red List assessment or the National Conservation Action Plan (NCAP) for the blue iguana. Instead, NTCI's role is to support these efforts by providing relevant field data and technical input to the appropriate authorities and conservation partners.

In Year 3, progress was made toward this supporting role through the completion of a major camera trapping survey in the Colliers Wilderness Reserve (see Activity 2.5), which will produce updated estimates of adult population numbers once analysis is completed. Additional data is currently being collected from the Salina Reserve. Together, these findings will be valuable in informing future revisions to both the Red List assessment and the NCAP.

NTCI has initiated discussions with the DoE regarding the potential update of the Red List assessment. However, meetings to discuss the NCAP are still pending and will be prioritized in the coming months. NTCI will continue to collaborate with key stakeholders, including the DoE, RSPB, and IUCN SSC Iguana Specialist Group—to ensure that all relevant project data is shared and available to support these initiatives. Any further contributions to drafting or reviewing will be made as requested during the final months of the project.

The project's measurable indicators for these activities—2.8: *Updated Red List Assessment completed for the blue iguana and submitted to IUCN by the end of the project*; *IBA/KBA update report submitted for Salina Reserve*, and 2.9: *National Conservation Action Plan completed and approved by the end of the project*—should be revisited. As NTCI does not hold the authority to finalize or formally submit these documents, the current indicators and their corresponding means of verification (i.e., submitted IUCN update report, IBA/KBA update report, and completed NCAP) do not accurately reflect NTCI's role. This issue will be addressed in an upcoming Change Request submission, which will propose revised indicators and means of verification to better reflect NTCI's supporting function in these deliverables.



**Output 3: Improve protected area management to support blue iguana and other priority wildlife conservation through effective community engagement and capacity building.**

***Activity 3.1 - Determine and implement an appropriate trapping schedule for Invasive Alien Vertebrates (IAVs) within the Salina Reserve.***

***Activity 3.2 - Determine and implement an appropriate trapping schedule for Invasive Alien Vertebrates (IAVs) within the Colliers Wilderness Reserve.***

Trapping of invasive predators, particularly feral cats, remains a key conservation action to protect blue iguanas and native species. In Years 1 and 2, site assessments and targeted seasonal trapping was undertaken at both the Salina Reserve and the Colliers Wilderness Reserve, particularly prior to iguana hatching seasons.

In Year 3, targeted invasive predator trapping continued at the Queen Elizabeth II Botanic Park around the BIC facility, informed by a training session led by DoE. New datasheets were developed to guide consistent recordkeeping. Although the Botanic Park is not one of the two core reserves under this grant, it acts as a stronghold and critical buffer for the blue iguana population.

Due to staffing gaps in early 2025, trapping efforts at Botanic Park were intermittent, though a more regular, year-round schedule is now under development. Discussions were also held regarding refining timing for field deployment at the Salina Reserve and the Colliers Wilderness Reserve, with a proposed shift toward trapping before the wet season, when food scarcity may increase trap success.

Notably, the trapping planned for mid-2024 was not completed as scheduled due to staffing constraints (the BIC Manager and Protected Areas Project Manager were not yet hired at that time). The team is now working to ramp up staffing and coordination to ensure a more intensive and well-documented trapping effort in the final project months. Invasive predator control remains a high priority under both reserve management plans, and trapping results will continue to inform future revisions to timing and effort.

***Activity 3.3 - Complete presence and absence targeted biodiversity survey for endemic fauna and flora and IBA trigger species within both PAs.***

During Year 3, the project made progress toward fulfilling biodiversity survey objectives, with continued efforts to improve data collection and address identified gaps in survey methodology. As part of this work, a repeat bird survey was completed at the Salina Reserve on April 4, 8, and 17, 2025, replicating the methodology used in previous years to allow for comparison. Data from this effort have been submitted to eBird and the RSPB.

To expand the scope and improve efficiency of avian monitoring, NTCI purchased 30 AudioMoth acoustic recording devices in early 2025. These devices will be deployed in the Salina Reserve and the Colliers Wilderness Reserve as part of a coordinated study with the DoE. The aim is to assess avian species richness and habitat use using passive acoustic monitoring, especially in under-surveyed areas and during different seasons. Deployment is planned for the coming months.

The acoustic monitoring initiative directly responds to feedback from the Year 2 review, which highlighted the need to strengthen surveys for IBA trigger species and clarify species identification (e.g., Grand Cayman Parrot vs. Brac Parrot). The use of AI software to analyze bird calls will improve species-level accuracy and allow for year-to-year comparisons. Additionally, the DoE produced 2023 population estimates for the Grand Cayman Parrot based on distance sampling across the island (Annex 4.9). These estimates provided site-level projections using density data and mapped habitat areas. Based on these calculations, the estimated number of parrots was 55 in the Salina Reserve and 16 in the Colliers Wilderness Reserve. These estimates establish a useful baseline for both reserves and will support interpretation of future monitoring data generated through acoustic surveys.

In addition to avian monitoring, the project has been working toward implementing a vegetation study in the two reserves. This includes the development of a vegetation monitoring protocol based on existing Caribbean methodologies. Protocols and permanent vegetation plots are planned to be established in the coming months to assess habitat condition, composition, and long-term change. These actions demonstrate meaningful progress toward a long-term monitoring framework. The use of standardized acoustic surveys and permanent vegetation plots will improve habitat assessments and support analysis of temporal trends—both critical to assessing the condition of biodiversity within the protected areas

***Activity 3.4 - Design and implement a targeted education and outreach campaign to support the conservation of key endemic wildlife and better practices in the management of protected areas.***

In Years 1 and 2, the project engaged in a variety of ad hoc outreach activities, including school presentations, community events, and use of the Blue Iguana App. While these efforts successfully reached multiple audiences, there was no formal structure guiding campaign delivery or message alignment.

In Year 3, a comprehensive education and outreach plan was developed to guide engagement for the remainder of the project and is included in Annex 4.10. The plan outlines key conservation messages, priority audiences, timelines, and a suite of outreach activities aimed at increasing awareness and support for protected areas and the conservation of endemic species such as the Grand Cayman blue iguana.

The outreach plan is being implemented in phases, with some materials already completed (e.g., signage design, website text) and others in progress. Notable activities this year include the launch of International Blue Iguana Day celebrations, which provided educational kits and native plants to local schools, and a special 35th anniversary event at the Botanic Park featuring wildlife talks and free facility tours. A selection of output materials from the education and outreach plan has been included in Annex 4.11. Metrics such as website traffic, social media engagement, school participation, and feedback received will be used to evaluate impact.

***Activity 3.5 - Current volunteer programme is expanded by at least 10 new volunteers annually.***

Volunteer involvement remains a key element of the BIC Program and broader protected area support. While the volunteer program did not expand by 10 new individual Guardians in Year 3, considerable effort has been made to re-engage previous volunteers and lay the groundwork for future growth and sustainability. In addition, six separate groups totalling 39 volunteers participated in on-site group activities at the BIC facility during the year, contributing to blue iguana husbandry, food collecting and preparation, and enclosure and general facility maintenance.

In February 2025, the NTCI team held a dedicated planning meeting to discuss the future of the Blue Iguana Guardians program. During this meeting, the team reviewed the structure and materials from previous iterations of the program, identified potential barriers to volunteer participation, and developed an action plan for relaunching the initiative. As part of this process, an email is scheduled to be circulated in May 2025 to former Guardians to gauge their continued interest in both regular and event-based volunteering opportunities. The feedback received will be used to shape upcoming training schedules, volunteer events, and communication strategies. Meeting notes are included in Annex 4.12.

To further grow the program, NTCI also plans to launch a social media campaign in the coming months to publicly recruit new Guardians. This campaign will promote the opportunity to get involved, highlight the role of Guardians in protecting the Grand Cayman blue iguana, and invite new applicants to sign up for upcoming training sessions. The relaunch will include refreshed onboarding materials and the implementation of scheduled training for both new and returning volunteers. A refresher session for existing Guardians and an orientation for new recruits are planned for later in 2025. In the interim, the team will continue to facilitate group volunteer opportunities—such as those already hosted at the BIC facility—to maintain engagement and build momentum as the formal recruitment phase progresses.

***Activity 3.6 - Updated signage to be designed and installed within the Colliers Wilderness Reserve and at other key sites including the Blue Iguana Conservation education hub to increase the knowledge of project and outcomes.***

In Years 1 and 2, preliminary signage design concepts were drafted for key project sites, and visitor feedback helped inform the direction for future installations. In Year 3, significant progress was made toward delivering this activity through both site-specific signage planning and broader outreach via interpretive displays.

A contract was issued to Nature Tourism Services in March 2025 to produce a package of interactive signage designs for the Colliers Wilderness Reserve entry precinct. Stage 1 of the design process includes concept development for entry signage, interpretive panels, and interactive or sculptural features that will help communicate the ecological significance of the reserve and its role in protecting the Grand Cayman blue iguana. Installation of the Colliers signage is planned following completion of Stage 2 design and fabrication. These efforts directly contribute to raising public awareness of the project's conservation goals and enhancing the visitor experience at key sites.

Although the Salina Reserve is not accessible to the public, its ecological importance is highlighted through signage now installed at the BIC education hub in the Botanic Park. This includes information about both the Salina Reserve and Colliers Wilderness Reserve protected areas, their role in blue iguana conservation, and broader messages about the importance of protected areas across all three islands (Annex 4.11).

***Activity 3.7 - Mobile application (NTCI App) to be updated to provide users with information on the ecological and cultural significance of protected areas, as well as details about endemic and threatened species, and biodiversity conservation and management.***

***Activity 3.8 - Mobile application is promoted and used by at least 1,000 people.***

In Years 1 and 2, this activity was initially linked to enhancements of the E-guana App, which was used for citizen science reporting of iguana sightings. However, following internal review and evolving communication priorities, the project team agreed to shift focus in Year 3 toward updating the broader NTCI App, which is better positioned to deliver comprehensive information about all protected areas, including their ecological, cultural, and species-specific significance. This change in focus from the E-guana App to the NTCI App was formally approved in the October 2024 Change Request.

The NTCI App is directly linked to the NTCI's website and shares its content structure. As a first step in this transition, the NTCI website was updated to reflect current project messaging, species information, and improved navigation related to protected areas. A summary of these updates is provided in Annex 4.13.

Work is underway to align and improve the mobile application accordingly. Updates currently in progress for the NTCI App include:

- Updating terminology from “environmental sites” to “protected areas,”
- Adding additional descriptions, photos, and maps for each protected area,
- Highlighting endemic and threatened species found within the reserves,
- Including key messages about biodiversity conservation and project goals.

The official relaunch of the NTCI App is planned for 3 May 2025 during the *Saving Our Natural Treasures* fundraiser event. This will serve as a public-facing launch, with targeted promotion planned through NTCI's website, social media, email newsletters, and a press release. Active promotion and user engagement efforts will continue throughout the final year of the project, with the goal of reaching and surpassing the target of 1,000 users. App analytics will be monitored to track progress toward this metric. This launch will not preclude further updates or refinements to the app, and additional improvements may be made based on user feedback and evolving project needs.

## **3.2 Progress towards project Outputs**

### **Output 1: Enhance in-Territory capability to restore, monitor and manage protected areas.**

At project outset, in-territory capacity to manage and monitor protected areas was extremely limited. The NTCI had no permanent protected areas staff, limited field capacity, and no formalized systems for patrols or monitoring. Output 1 aimed to address these gaps through recruitment, training, development of protocols, and the rollout of long-term monitoring programmes, supported by improved field access, new data systems, and key operational toolsestablishment of field infrastructure.

Despite early staffing and logistical challenges in Years 1 and 2, significant progress was made in Year 3. A new BIC Manager was hired in August 2024, and a Protected Areas Project Manager was appointed in September 2024 following a staffing restructuring. These roles stabilized delivery and provided the coordination needed to move the project forward.

Training needs were reviewed, and a structured training plan was developed, covering key areas such as invasive predator control, camera trap monitoring, first aid, patrol data recording, and field notetaking. Staff completed certified First Aid/CPR training, invasive predator management sessions, and initiated training on GIS and ZIMS database systems. These training courses were supported by bi-monthly mentoring from RSPB and in-person technical visits.

Monitoring systems have been significantly strengthened. A protected area patrol database was launched, and monthly patrols are being considered for inclusion in the protected area management plans. Trail

access was re-established and maintained across both reserves, supporting fieldwork. Drone surveys were completed to support boundary monitoring where ground access was limited.

Spatial data management has improved with the procurement of an ArcGIS Pro license, and the Protected Areas Project Manager has begun building a centralized GIS database to store field data, which will be finalized before project closure.

Progress against Output 1 indicators is evidenced by recruitment records, training logs, monitoring datasets, and technical protocols. While early delays impacted timelines, the project is now on track to fully achieve Output 1 by September 2025, with systems and capacity in place for lasting protected area management.

### **Output 2: Management plans for two key protected areas produced and implemented with targeted conservation actions for the focal species: Grand Cayman blue iguana.**

At the start of the project, neither the Salina Reserve nor the Colliers Wilderness Reserve had current management plans, and species monitoring for the Grand Cayman blue iguana was fragmented. Output 2 aimed to develop formal management plans, improve monitoring methods, and generate spatial data to inform future conservation efforts.

A draft Salina Reserve Management Plan was completed in Year 2 and underwent internal and Environmental Advisory Committee review in Year 3. It was subsequently revised with input from RSPB and is now undergoing final review, with submission to the Trust Council anticipated in summer 2025. The Colliers Wilderness Reserve Management Plan, also drafted in Year 2, has not yet been reviewed by the Environmental Advisory Committee. However, similar revisions and stakeholder consultations are planned, with a final review process scheduled for the last quarter of the project. Both management plans consist of a strategic document and an accompanying annual action plan to guide ongoing site-based management.

Species monitoring has advanced. Distance sampling for iguanas was discontinued after Year 2 due to poor reliability in dense habitats, and camera trapping became the primary method. Surveys at the Colliers Wilderness Reserve identified 37 unique adult iguanas, and a survey at the Salina Reserve is currently underway. These data will support updated population estimates, Red List assessments, and conservation planning.

GPS telemetry has faced technical challenges. Initial field tests of adult iguana tracking units failed, prompting a shift to lighter units suitable for juveniles. Fifteen new lightweight units have been procured and will be tested on released juvenile iguanas, generating important post-release survival data, even if it diverges slightly from the original adult-focused objectives.

Spatial data management has improved with the development of a centralized GIS database, mapping trails, camera stations, and habitat features. This framework will support site monitoring beyond the life of the project.

While some original activities (e.g., habitat corridor mapping) have been delayed due to GPS tracking setbacks, strong progress has been made overall. Field data from camera traps, spatial databases, and management plans will directly inform Red List and NCAP updates by project partners. Output 2 remains on track for completion by September 2025.

### **Output 3: Improve protected area management to support blue iguana and other priority wildlife conservation through effective community engagement and capacity building.**

At project outset, invasive predator control, biodiversity monitoring, and community engagement around protected areas were limited. Output 3 aimed at improving protected area management by implementing field actions and strengthening public support.

Invasive predator control progressed through trapping around the BIC facility, following staff training by the DoE. Datasheets were developed to guide trapping records. Although the targeted trapping at the Salina Reserve and Colliers Wilderness Reserve was delayed due to staffing gaps, planning is underway to intensify efforts before the next iguana hatching season. A full trapping schedule is being refined for the final months of the project.

Biodiversity monitoring advanced significantly. Bird surveys at the Salina Reserve were repeated in early 2025, and 30 AudioMoth acoustic recorders were purchased to improve IBA species detection. The DoE provided updated 2023 population estimates for the Grand Cayman parrot using island-wide density data, including projections for the two project sites. These estimates are being used alongside project surveys to improve understanding of species presence in the reserves. Planning for a vegetation monitoring

protocol also began, with methods reviewed against Caribbean case studies. Although full abundance surveys were not feasible within the project timeframe, presence-absence data collection and standardized protocols are strengthening the ecological knowledge base for long-term monitoring.

Education and outreach efforts were expanded through the development and phased rollout of a comprehensive Education & Outreach Plan. This plan outlines strategic messaging, key audiences, and targeted activities. The Guardians volunteer program was reviewed and is being restructured for relaunch in 2025 with improved onboarding, training, and promotional efforts.

Overall, Output 3 has advanced steadily, though challenges such as staff turnover delayed some field activities. Strategic adjustments, renewed outreach, and strong stakeholder support have positioned the project to meet its objectives by close.

### **3.3 Progress towards the project Outcome**

#### **Outcome: Improved condition of protected areas harbouring key endemic wildlife populations through effective management plans and additional capacity to implement them.**

At the outset of the project, Grand Cayman's protected areas suffered from limited management infrastructure, a lack of formal plans, and insufficient data to inform conservation actions. The two focal protected areas—the Salina Reserve and the Colliers Wilderness Reserve—had no current management plans, limited baseline data for endemic species, and no regular monitoring or capacity for adaptive management. The project aimed to reverse this by improving data collection, formalizing management structures, and building local capacity.

Despite earlier staffing challenges and setbacks with telemetry, the project is now making measurable progress across all five Outcome indicators. Output delivery has built the foundational systems needed for long-term success, and most targets remain achievable by September 2025. Risks associated with GPS tracking and species movement data will be mitigated by continued testing and the use of complementary approaches such as acoustic monitoring and spatial data modelling. Overall, the project remains on track to achieve its stated Outcome.

#### ***Outcome Indicator 0.1 - Scientific knowledge gaps filled and data used to inform conservation actions for blue iguanas in two key protected areas, to stabilize the current decline in population numbers and monitor impact of management changes. Data collected is used to develop the National Conservation Action Plan and an updated Red List Assessment.***

Significant progress has been made. Camera trapping in both reserves is yielding data on blue iguana abundance and distribution. In Year 3, the camera trap survey conducted in the Colliers Wilderness Reserve identified 37 adult blue iguanas, with follow-up analysis underway. Camera trapping in the Salina Reserve was initiated in March 2025, with similar analysis planned. While GPS tracking efforts encountered setbacks in Year 3 due to failed attachment tests, revised testing with lighter devices is planned. These datasets will directly feed into the Red List and NCAP processes.

#### ***Outcome Indicator 0.2 – Population monitoring of key endemic wildlife within the protected areas, including important birding area (IBA) trigger species, Grand Cayman parrot and native reptiles, to explore program efficacy.***

Updated adult blue iguana population estimates are underway for the Colliers Wilderness Reserve through mark-recapture analysis of camera trap imagery collected in 2024. Comparable surveys are ongoing in the Salina Reserve, using the same methodology to ensure consistency across sites. Bird monitoring was repeated in Salina in early 2025 using point count methods.

In parallel, the project acquired 30 AudioMoth acoustic recording units to improve detection of IBA trigger species through passive monitoring. Additionally, DoE has supported the project by producing preliminary parrot population estimates within both reserves, further contributing to the IBA data baseline. These efforts collectively respond to recommendations raised in the Year 2 review and strengthen the project's ability to generate updated population data for Grand Cayman parrot and other IBA species prior to project close.

#### ***Outcome Indicator 0.3 - Habitat suitability and important wildlife corridors understood and fed into protected area management, restoration and NTCI Natural Heritage Protection Strategy.***

Progress on this indicator is delayed due to GPS tracking limitations. A prototype test of large units failed within 24 hours in April 2025. This has prevented meaningful collection of dispersal or movement data.

Smaller unit testing is planned, but the final analysis and integration into protected area planning may extend beyond the project period.

***Outcome Indicator 0.4 – Protected area management effectiveness is measured and evaluated and management plans are developed for two protected areas.***

A fully revised draft of the Salina Reserve Management Plan is complete and under internal and advisory review. The structure incorporates adaptive management and annual planning. Implementation has already begun, with priority actions—such as camera trapping and invasive predator control—underway. Refinement of the Colliers Wilderness Reserve draft management plan is scheduled for the final quarter. Both plans will incorporate ecological and management effectiveness indicators. During the final months of this project, we intend to take time to reflect on the implementation of the plans through targeted training in protected area management effectiveness evaluation. This will include a dedicated session on the Management Effectiveness Tracking Tool (METT), which will support long-term assessment and adaptive planning.

***Outcome Indicator 0.5 - Local capacity improved to implement protected area management plans and long term IAV management, monitor impacts and respond effectively.***

Capacity has increased substantially. A new Protected Areas Project Manager was hired in September 2024, training has resumed, and field protocols are now in place for trapping, monitoring, and data collection. Technical support from RSPB and the DoE continues to strengthen in-territory delivery. Although the Guardian volunteer program lost momentum due to staff turnover and inconsistencies earlier in the project, renewed outreach and planning are now in motion. These efforts are supported by improved communications materials and updated training plans to re-engage former participants and attract new volunteers.

### **3.4 Monitoring of assumptions**

Monitoring critical conditions remains integral to project success. Overall, most Outcome and Output-level assumptions continue to hold, with some minor adaptations in Year 3 to address ongoing risks.

Recruitment and retention of qualified staff and volunteers have remained a challenge, despite mitigation efforts. Staff turnover in early Year 3 delayed some activities, but the hiring of the BIC Manager and Protected Areas Project Manager stabilized delivery. The revised staffing model has proven effective, although reliance on work permits and limited local candidates continue to pose risks.

Fieldwork and patrols have been successfully conducted despite environmental challenges. Weather-related access issues were mitigated through flexible scheduling and the increased use of drones for boundary monitoring, demonstrating that field activities can continue even under difficult conditions.

Staff, volunteers, and partners have demonstrated growing expertise in applying new technologies. Training in camera trapping, drone surveys, patrol protocols, and GIS has improved technical capacity. Additional mentoring from RSPB has strengthened in-territory skills, and further training is planned to continue this progress.

Although volunteer recruitment did not meet original targets this year, group volunteer activities continued at the BIC facility, and relaunch plans for the blue iguana Guardian program are in place. Social media outreach to recruit new Guardians will further support volunteer engagement.

Invasive predator control implementation faced delays due to staff shortages but remains a high priority. Intensive trapping efforts are scheduled for the final project months, building on standardized datasheets and improved protocols developed this year.

Communications outputs, including protected area signage, website updates, and the forthcoming relaunch of the NTCL App, have been well received. App promotion is scheduled for May 2025, and engagement metrics will be tracked to assess success.

## **4. Project support to environmental and/or climate outcomes in the UKOTs**

During Year 3, the project continued to contribute meaningfully toward the strategic conservation goals of the Cayman Islands and broader UKOT environmental priorities. The Cayman Island Government passed

the National Conservation Law (NCL) in 2013 – the most significant piece of legislation dealing with environmental conservation in the Territories history. Part 3 of this legislation deals with effective management of protected areas via high quality management plans. This project is helping NTCI reach the goals of this legislation by the creation of the management plans for the Salina Reserve and the Colliers Wilderness Reserve. The NCL also calls for the effective species management in Part 4 of the Law. As a schedule 1 species the blue iguana is in the highest category of protection under the Cayman Islands law and is mandated to have a NCAP. The improved monitoring of this species and the protected areas that it depends upon will allow for the creation of the NCAP for this species.

The project will support the UK and Cayman Islands' responsibilities under the Convention on Biological Diversity (Article 8(h) concerning alien species; Article 12 concerning research and training; Article 13 concerning public education and awareness). This project is also helping the Cayman Islands meet Sustainable Development Goals laid out by the United Nations: Specifically, SDG's: 4, 8, 13, 15 & 17. Goal 4 Quality Education and Goal 8 Decent Work and Economic Growth - through training courses and capacity building initiatives designed for both staff and volunteers will engage the community and build skills and support for future employment opportunities. Goal 13: Climate Action – the project will develop and promote mechanisms such as long-term climate data collection and will incorporate climate change-thinking into protected area management plans. Goal 15 - Life on Land - a key project objective is to take action to reduce the degradation of natural habitats in Protected Areas and thereby halt the loss on biodiversity and significantly reduce the impact of invasive predators by the control or eradication of priority species so to protect the extinction of threatened endemic species. Goal 17: Partnerships for the goals – the project partners have worked to increase on-island capacity, creating sustainable development through sharing knowledge, expertise, technology and financial resources.

Local conservation capacity has been enhanced through structured training programs in field monitoring, invasive predator control, safety, and GIS skills development. Strong collaboration with the DoE, RSPB, WCS, and SMU has reinforced in-territory expertise.

## 5. Gender Equality and Social Inclusion (GESI)

<b>GESI Scale</b>	<b>Description</b>	<b>Put X where you think your project is on the scale</b>
<b>Not yet sensitive</b>	The GESI context may have been considered but the project isn't quite meeting the requirements of a 'sensitive' approach	
<b>Sensitive</b>	The GESI context has been considered and project activities take this into account in their design and implementation. The project addresses basic needs and vulnerabilities of women and marginalised groups and the project will not contribute to or create further inequalities.	X
<b>Empowering</b>	The project has all the characteristics of a 'sensitive' approach whilst also increasing equal access to assets, resources and capabilities for women and marginalised groups	
<b>Transformative</b>	The project has all the characteristics of an 'empowering' approach whilst also addressing unequal power relationships and seeking institutional and societal change	

The project has maintained a GESI Sensitive approach throughout its implementation, and Year 3 activities continued to consider and accommodate the local gender and social context across recruitment, fieldwork, volunteer engagement, and community outreach. While we are not yet at an "Empowering" or "Transformative" level, we remain committed to ensuring our work does not contribute to further inequalities and actively addresses basic needs and vulnerabilities of underrepresented groups.

## Consideration of GESI Principles:

**Rights & Practice:** The project ensures equitable access to participation and benefits across gender, age, and social background. NTCI maintains a non-discrimination policy and equal opportunity practices in recruitment and volunteer onboarding. All project roles, including managerial, technical, and field-based positions—are open to all qualified individuals regardless of gender or background.

**Environment & Vulnerability:** Field safety protocols (e.g., working in pairs, sign-in/out procedures, drone use for remote monitoring) are inclusive and designed to reduce risk for all, including groups who may face heightened vulnerability, such as women or younger volunteers.

**Roles & Representation:** In Year 3, women continued to play key roles in project delivery, including as the Protected Areas Project Manager and in outreach and education. Outreach activities were planned for schools across all districts, ensuring age-appropriate and inclusive messaging.

**Resources:** Access to training and technical support has been equally available to all staff and volunteers. Training sessions—such as those in First Aid, camera trapping, and invasive predator management—were scheduled flexibly to accommodate differing availability and personal responsibilities.

**Social Inclusion and Meaningful Participation:** Our volunteer program was reviewed and restructured in 2025 with inclusivity in mind. The blue iguana Guardians relaunch planning included feedback from a wide range of past participants, and future outreach will include targeted social media efforts to ensure a broader and more representative group of applicants. Education and outreach efforts have been intentionally designed to reach diverse audiences and ensure that the messaging is accessible regardless of literacy level, gender, or age.

## Lessons Learned and Ongoing Actions:

While our program has engaged a wide demographic, we recognize that certain activities (e.g., long field days, rugged terrain, or weekday events) may unintentionally exclude people with mobility limitations, caretaking responsibilities, or inflexible work schedules. In the final months of the project, we will work to diversify engagement formats, e.g., weekend volunteer sessions, shorter events, or virtual training content—to help address these barriers. Additionally, the team plans to review our outreach and volunteer materials to assess if further gender and inclusion-sensitive language and imagery could be incorporated.

## 6. Monitoring and evaluation

Monitoring and evaluation (M&E) remain central to project delivery. In Year 3, NTCI continued to lead M&E activities, supported by RSPB and the DoE. Progress against Outputs and Outcomes is tracked through monthly reports prepared for the NTCI Trust Council (Annex 4.14), quarterly reviews using an online work management platform, and bi-monthly partner check-ins with RSPB (Annex 4.15). Quantitative indicators, including biodiversity monitoring, trail maintenance, and volunteer engagement, are monitored through datasheets, patrol logs, and field records. Qualitative impacts are assessed through outreach engagement and participant feedback.

Adaptive management continues to guide implementation; for example, GPS tracking methods were revised when adult iguana harness trials failed, and expanded bird acoustic monitoring was introduced following last year's review feedback. A Change Request is being prepared to reflect NTCI's supporting role (rather than lead responsibility) for the Red List and NCAP outputs.

## 7. Lessons learnt

Year 3 offered valuable lessons that have strengthened project delivery. The staffing restructuring and creation of the Protected Areas Project Manager role proved critical to overcoming early capacity gaps and stabilizing implementation. More flexible internal planning has allowed the team to adapt to challenges like procurement delays, staff turnover, and invasive predator management needs.

The project reaffirmed the importance of building resilience into survey design. While habitat use data for wild adult iguanas remains incomplete due to GPS attachment difficulties, pivoting to lighter units for juveniles illustrates adaptive management in action. Similarly, the development of a vegetation survey pilot and the expansion of acoustic bird monitoring demonstrate that flexible, phased implementation allows gaps to be addressed even late in project cycles.

A major lesson is the value of clear, accessible data systems. The protected area patrol database, centralized GIS inventory, and structured training plans are improving field efficiency and building



sustainable capacity. Going forward, further investments in training (especially in field notetaking, GIS and drone operation) will strengthen resilience against future staff changes.

Volunteer re-engagement planning also highlighted the need for realistic timelines for reactivation of legacy programs, particularly following periods of limited staff capacity.

These lessons are being incorporated into final year planning, and a Change Request has been prepared to ensure that Outcome indicators reflect the project's realistic supporting role in NCAP and Red List updates.

Future projects should continue prioritizing flexibility, early stakeholder engagement, and proactive legacy planning from the outset.

## **8. Actions taken in response to previous reviews (if applicable)**

The project has taken targeted steps to address the feedback provided in the Year 2 Annual Report Review, with progress made across monitoring, reporting, outreach, and volunteer engagement.

**Biodiversity Monitoring:** To address gaps in biodiversity data, the project conducted a repeat bird survey at Salina Reserve in April 2025 using the same methodology as previous years to allow for comparison. Additionally, 30 AudioMoth acoustic recorders were purchased to improve species detection and address reviewer concerns regarding IBA trigger species monitoring and species misidentification (e.g., Grand Cayman Parrot vs. Brac Parrot). An acoustic monitoring program was launched in collaboration with the DoE, who also produced preliminary Grand Cayman parrot population estimates for both reserves. A vegetation monitoring protocol has been started based on regional methodologies, with permanent plots and surveys planned for summer 2025.

**Invasive Predator Control:** Clarifications were added regarding invasive predator management. Trapping protocols were finalized, and staff received formal training from the DoE. Updated datasheets were developed, and a revised trapping schedule is in place for the final months of the project to align with the upcoming blue iguana hatchling season. This addresses concerns about lack of clarity in previous years' reporting.

**Training Documentation:** A structured training plan was developed in Year 3 and is included in Annex 4.1. Attendance logs and session descriptions are documented in Annex 4.2. This directly responds to reviewer comments calling for better documentation and clearer links between training activities and Output 1 indicators.

**Patrol and Monitoring Improvements:** Protected area patrols are being formalized. Staff now document each field visit using a standardized database developed in January 2025. While full monthly patrols are still being trialed, drone-based boundary surveillance has been completed for both reserves, with follow-up field verification for any identified anomalies. This strengthens monitoring of boundary encroachment while acknowledging terrain limitations. While drone monitoring is not a substitute for physical signage, it is an adaptation to improve oversight in remote areas with difficult terrain.

**Volunteer Engagement:** While the volunteer target was not fully met in Year 3, a strategy is now in place to relaunch the blue iguana Guardians program with improved materials and communication. A social media campaign and re-onboarding sessions are planned for mid-2025. Volunteer participation to date is summarized in Annex 4.7.

**Safeguarding and SEAH:** While no community sensitization around SEAH were conducted during the reporting period, a plan has been developed for improving safeguarding protocols, including staff training and clearer community-facing materials. A policy update is scheduled for completion before the project end and is summarized in Annex 4.13.

**Darwin Branding and Attribution:** All outreach materials and app updates now include the Darwin Plus logo and attribution text as required. This includes the redesigned educational signage, the NTCI app relaunch materials, and school celebration kits for International Blue Iguana Day.

## **9. Risk Management**

Several risks identified in previous years remained relevant in Year 3, including staff recruitment delays, procurement challenges, and the feasibility of GPS tracking. A new risk emerged when a test of the 95.5g GPS harness failed, leading to a March 2025 Change Request and the procurement of lighter units for juvenile iguanas.

Staffing gaps early in the year were addressed through a project restructuring and the hiring of a Protected Areas Project Manager, improving delivery and coordination. Although invasive predator trapping was delayed due to limited capacity, plans are now in place for intensified efforts in the final months. The updated risk register, included in Annex 4.16, continues to guide mitigation efforts as the project moves toward completion.

## **10. Scalability and durability**

The project has made significant strides toward ensuring both scalability and durability of its achievements. Several systems and tools developed during the projects such as the protected area patrol database, GIS spatial inventory, standardized monitoring protocols, and structured training plans—have been fully institutionalized within NTCI's core operations. These systems are designed to require minimal external support, promoting sustainability after project completion.

Staff have been trained in key skills including camera trapping and invasive predator management, with further training in GIS and drone use planned. This local capacity building will support the continued monitoring and management of the Salina Reserve and the Colliers Wilderness Reserve and future protected areas.

The development of detailed management plans for the Salina Reserve and the Colliers Wilderness Reserve represents a major output that will directly guide site management beyond the life of the grant. The plans also offer a scalable framework that can be adapted for other NTCI reserves across the Cayman Islands.

The education and outreach plan developed this year has expanded public engagement and is helping to build wider community support for protected areas and endemic species conservation. The relaunch of the NTCI App and accompanying website updates have further strengthened communication channels, creating durable tools for community outreach and citizen science participation.

Government and partner engagement has remained strong throughout, helping to align project outcomes with national biodiversity strategies and conservation action plans. By collaborating with the DoE and other agencies, the project has contributed data that will support future Red List and NCAP updates. Overall, the project has laid a strong foundation for lasting impact through capacity building, system development, and community engagement, ensuring that conservation outcomes will endure beyond the project's closure.

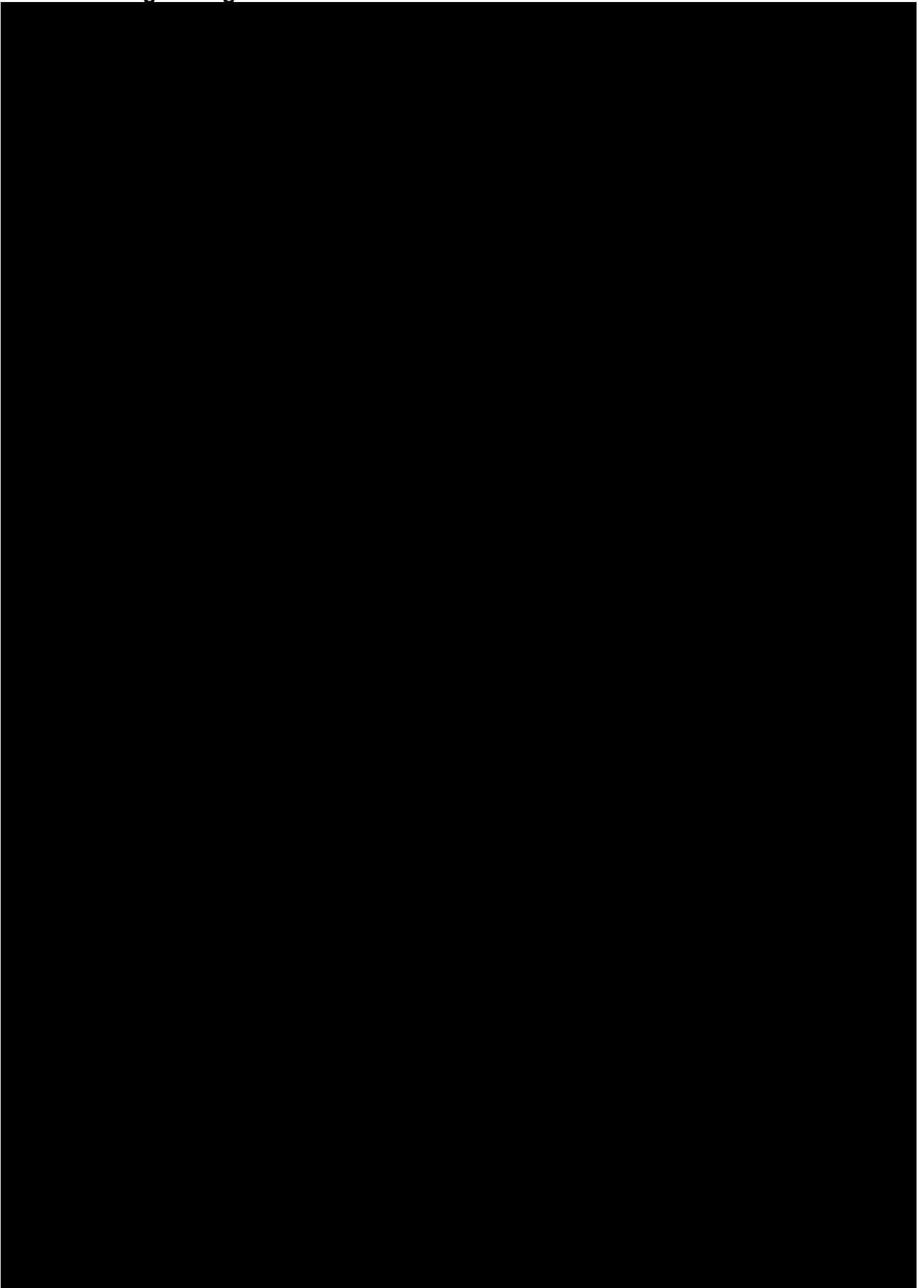
## **11. Darwin Plus identity**

Throughout Year 3, the project has continued to promote Darwin Plus as a key funder and partner in conservation efforts in the Cayman Islands. The Darwin Plus logo has been prominently featured on all public-facing materials, including signage at the BIC education hub, community event materials, and social media graphics (Annex 4.11). It is also displayed on project reports, presentations, and training materials developed under the grant.

The DPLUS163 project has been maintained as a distinct initiative under the NTCI for the Cayman Islands, with its own reporting, communication outputs, and workplans, although it contributes to broader organizational goals related to species recovery and habitat protection.

While general public awareness of the Darwin Plus program remains modest, understanding has grown among core conservation stakeholders, including local government agencies, academic partners, and volunteers. Outreach efforts, especially through school visits and signage at the BIC facility, continue to raise visibility of the program's role in supporting conservation science and implementation.

## 12. Safeguarding



### 13. Project expenditure

**Table 1: Project expenditure during the reporting period (1 April 2024 – 31 March 2025)**

Project spend (indicative) in this financial year	2024/25 D+ Grant (£)	2024/25 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others (Please specify)				
<b>TOTAL</b>				

**Table 2: Project mobilised or matched funding during the reporting period (1 April 2024 – 31 March 2025)**

	Secured to date	Expected by end of project	Sources
Matched funding leveraged by the partners to deliver the project (£)			
Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project (£)			

### 14. Other comments on progress not covered elsewhere

None.

## Annex 1: Report of progress and achievements against logframe for Financial Year 2024-2025

Project summary	Progress and Achievements April 2024 - March 2025	Actions required/planned for next period
<p><b>Impact</b></p> <p>Grand Cayman's flagship protected areas thrive, through effective management, safeguarding key populations of endemic wildlife.</p>	<p>Through fieldwork and data analysis, the project aims to fill scientific knowledge gaps to inform priority species conservation actions and protected area site management. Progress towards this overall impact includes population monitoring, habitat assessment, and the development of management plans, with a focus on enhancing local capacity for long-term management and adaptive strategies through training and collaborative initiatives.</p>	
<p><b>Outcome</b> Improved condition of protected areas harboring key endemic wildlife populations through effective management plans and additional capacity to implement them.</p>		
<p>Outcome indicator 0.1</p> <p>Scientific knowledge gaps filled, and data used to inform conservation actions for blue iguanas in two key protected areas, to stabilise the current decline in population numbers and monitor impact of management changes. Data collected is used to develop the NCAP and an updated Red List Assessment.</p>	<p>Camera trap surveys, drone monitoring, and health screening activities underway. GPS tracking adapted to lighter devices. Disease sampling protocols developed. Data collected will support NCAP and Red List updates.</p>	<p>Prepare vegetation survey protocols and complete surveys.</p> <p>Retrieve cameras from the Salina Reserve and complete initial data analysis (photo sorting and initial identification).</p> <p>Deploy, retrieve and analyse acoustic monitoring devices in protected areas.</p> <p>Deploy lighter GPS trackers and analyse data.</p> <p>Continue to work with the necessary partners to develop NCAP and update the Red List Assessment.</p>
<p>Outcome indicator 0.2</p> <p>Updated Population estimates for two priority KBA/IBA trigger species, Grand Cayman parrot and blue iguana, by end of project.</p>	<p>Parrot density estimates provided by DoE and applied to Salina and Colliers. Salina and Colliers iguana estimates underway.</p>	<p>Work with academic research partners to finalize abundance modelling of blue iguana camera trapping data from the Salina Reserve in 2025 and the Colliers Wilderness Reserve in 2024.</p>

<p>Outcome indicator 0.3</p> <p>Habitat suitability and important wildlife corridors understood and fed into protected area management, restoration and the NTCI Natural Heritage Protection Strategy.</p>	<p>Vegetation survey protocols developed. GPS tracking adaptation underway to support this work</p>	<p>Complete pilot vegetation surveys, assess habitat use from GPS if feasible. Begin corridor identification.</p>
<p>Outcome indicator 0.4</p> <p>Management plans are developed and implemented for two protected areas and Protected Area Management Effectiveness is measured and evaluated.</p>	<p>Salina and Colliers management plans drafted and internally reviewed. METT training scheduled for June 2025 to complete protected area effectiveness evaluations.</p>	<p>Finalize plans and conduct METT assessments for both reserves.</p>
<p>Outcome indicator 0.5</p> <p>Local capacity improved to support the implementation of protected area management plans, leading to effective baseline data collection, effective invasive predator management and the long-term monitoring of key populations, habitat and conservation interventions.</p>	<p>Training plan developed and implemented. Project staff trained in patrols, drone surveys, data management, invasive predator control, and field safety.</p>	<p>Deliver remaining trainings: drone boundary surveys, METT, vegetation surveys, acoustic surveys, ZIMS. Strengthen handover systems for long-term continuity.</p>
<p><b>Output 1</b> Enhance in-Territory capability to restore, monitor and manage protected areas.</p>		
<p>Output indicator 1.1</p> <p>Local capacity is increased through recruitment of a Protected Areas Project Manager and seasonal Assistant Field Assistants with training and mentoring from RSPB reserves and ecology network.</p>	<p>Protected Areas Project Manager hired. Seasonal Field Assistants hired for fieldwork. Training plan developed and implemented.</p>	<p>Recruit seasonal field staff to assist with remaining monitoring.</p> <p>Look into involving current BIC staff where possible.</p>
<p>Output indicator 1.2</p> <p>Training course developed for capacity building and skills development of current NTCI staff, students, and volunteers. At least 10 in-Territory staff, students or volunteers will complete the</p>	<p>Training plan developed and delivered across multiple skill areas (camera trapping, drone surveys, GIS, invasive predator control, field notetaking, acoustic analysis).</p>	<p>Deliver drone boundary survey training, METT training, vegetation survey training, and finalize internal training handover systems.</p>

training course by end of project. Course to be led by the Protected Areas Project Manager position.		
<p>Output indicator 1.3</p> <p>Detailed screening is conducted on target species (racer snakes, green iguanas, anoles) to establish data on emerging disease risk.</p>	Disease sampling protocol developed; sampling supplies ordered for fieldwork. Discussions initiated with WCS and Cayman Islands Health Services Authority Molecular Biology Laboratory to see if on-island testing is a possibility.	Complete sample collection and have samples tested on-island (if testing becomes available) or prepare samples for off-island testing.
<p>Output indicator 1.4</p> <p>Protected area patrols and monitoring for encroachment from neighbouring landowners are conducted by trained staff and volunteers from NTCI at twice a year both on foot and using suitable technology (e.g., drones).</p>	Drone surveys completed at the Colliers Wilderness Reserve (July 2024) and the Salina Reserve (December 2024). Salina Reserve follow-up visits planned. Patrols institutionalized in new database.	<p>Complete ground-truth visit at the Salina Reserve.</p> <p>Build internal drone capacity for future patrols.</p> <p>Continue to track protected area patrols.</p>
<p>Output indicator 1.5</p> <p>Daily climate data is being recorded from fixed plots within each PA, as a way of early warning of habitat degradation from climate change or other threats.</p>	Weather stations were reported as established in Year 1.	Ongoing data collection and summary report of results.
<p>Output indicator 1.6</p> <p>All protected area boundaries are recorded and stored in GIS database and monitored annually using suitable technology (e.g., drones).</p>	GIS spatial database initiated.	Finalize spatial database and metadata tables for protected area monitoring.
<p>Output indicator 1.7</p> <p>Trail systems are established and maintained throughout both protected areas for routine and ecological monitoring.</p>	Trails re-cleared in both reserves, enabling access for surveys and patrols.	Conduct maintenance as needed during final field season.
<b>Output 2.</b> Management plans for two key protected areas produced and implemented with targeted conservation actions for the focal species: Grand Cayman blue iguana.		
Output indicator 2.1	Drafts for both reserves completed in Year 2. Extensive revisions completed for the Salina Reserve	Complete final revisions for Salina Reserve management plan and take the

Protected area management plans are developed and implemented for both Salina and Colliers reserves by the end of the project.	management plan in Year 3 - structured into Strategic and Action Plan formats.	Colliers Wilderness Reserve management plan through similar round of revisions.  Submit final management plans to Trust Council for approval.
Output indicator 2.2  Study conducted to estimate blue iguana abundance by habitat type within the protected areas using camera traps.	Colliers Wilderness Reserve camera trap survey completed. Salina Reserve camera trap survey in progress.	Work with academic research partners to finalize abundance modelling of blue iguana camera trapping data from the Salina Reserve in 2025 and the Colliers Wilderness Reserve in 2024.
Output indicator 2.3  Study conducted to identify habitat use and range within the protected areas using GPS tracking of adult blue iguanas.	Trialled GPS units that were purchase in Year 1 of project; received radio licence for these units.  Submitted Change Request to purchase lighter GPS units; purchase units; planning for field deployment started.	Continue discussions on feasibility of GPS units purchased in Year 1; continue trials if it is decided to keep moving ahead.  Deploy lighter GPS units; analyse preliminary data to support habitat use insights.
Output indicator 2.4  Preferred habitat types for blue iguana identified within two protected areas.	Linked to habitat use from GPS tracking; pending results.	Analyse GPS data and habitat characteristics.
Output indicator 2.5  A GIS database is developed to assess habitat suitability and document habitat range and distribution for blue iguanas in two protected areas.	Layers compilation started; final integration with tracking data pending.	Finalize database integrating vegetation and habitat use data.
Output indicator 2.6  By the end of the project, all blue iguana habitat and distribution information is combined to quantify and identify land and 'good habitat' options sufficient to expand, restore or establish protected areas.	Initial planning stage; dependent on habitat analysis results.	Draft recommendations if sufficient data available.



<p>Output indicator 2.7</p> <p>Corridors identified for blue iguana movement continuity between protected areas or on private land within the species' range.</p>	<p>GPS tracking and spatial analysis needed.</p>	<p>Prioritize corridor identification based on final tracking and habitat survey results.</p>
<p>Output indicator 2.8</p> <p>Updated Red List Assessment completed for the blue iguana and submitted to IUCN by the end of the project. Update information related to IBA/KBA for Salina Reserve by end of the project.</p>	<p>Completed camera trap survey in the Colliers Wilderness Reserve; initial data analysis for this survey completed.</p> <p>Started camera trap survey in the Salina Reserve.</p> <p>Initiated discussions with DoE on Red List update.</p>	<p>Work with academic research partners to finalize abundance modelling of blue iguana camera trapping data from the Salina Reserve in 2025 and the Colliers Wilderness Reserve in 2024.</p> <p>Support IUCN Red List update and prepare species data summaries.</p> <p>Complete IBA/KBA update for the Salina Reserve.</p>
<p>Output indicator 2.9</p> <p>NCAP completed and approved by the end of the project.</p>	<p>Final document development led by partner agencies.</p>	<p>Meet with partner agencies to discuss NCAP.</p> <p>Draft data contributions.</p> <p>Finalize NTCI's contribution and submit supporting datasets.</p>
<p><b>Output 3.</b> Improve protected area management to support blue iguana and other priority wildlife conservation through effective community engagement and capacity building.</p>		
<p>Output indicator 3.1</p> <p>Continuous invasive predator monitoring, trapping and removal is conducted by staff and trained volunteers, and results analysed annually to look at impact within protected areas and inform long term efforts required.</p>	<p>Cat trapping training provided by DoE to NTCI staff. New datasheets and schedule for trapping around BIC facility developed. Planning underway for trapping in protected areas in remaining months of project.</p>	<p>Conduct intensified field trapping in protected areas before hatchling season.</p> <p>Formalize trapping schedule at BIC facility.</p> <p>Create database for cat trapping results.</p>
<p>Output indicator 3.2</p> <p>Biodiversity surveys are established and conducted at regular intervals for target species – in particular, IBA trigger species and the Grand Cayman parrot, native reptiles and plants within the</p>	<p>Bird surveys at Salina Reserve repeated. Acoustic recorder acquisition and setup completed. Vegetation survey protocols discussions started.</p>	<p>Complete deployment, retrieval of acoustic recorders; analyse data and report on findings.</p> <p>Complete vegetation survey protocols; develop permanent vegetation plots and</p>

protected areas and results are analysed at the end of the project to explore protected area management efficacy.		complete pilot vegetation surveys in protected areas.
<p>Output indicator 3.3</p> <p>A public education and outreach campaign is developed to support conservation of key endemic wildlife and better practises in protected area management, highlighting key issues and shaping behaviour change.</p>	Comprehensive education and outreach plan created and launched.	Complete remaining outreach activities.
<p>Output indicator 3.4</p> <p>Updated educational signage at Colliers Wilderness Reserve and the BIC facility educational hub to increase knowledge and awareness of issues, research and solutions.</p>	Signage created and installed at BIC facility education hub. Company chosen to design interactive signage installation at Colliers Wilderness Reserve.	<p>Monitor signage condition at BIC facility education hub and refresh if necessary.</p> <p>Work with company to design interactive signage installation at the Colliers Wilderness Reserve, have the physical signs produced and installed at the protected area.</p>
<p>Output indicator 3.5</p> <p>Current volunteer program is expanded to assist with more fieldwork, data collection and invasive predator management. At least 10 new volunteers will have signed up by the end of each project year, resulting with at least 30 trained volunteers by the end of the project.</p>	<p>Blue Iguana Guardians program reactivation discussed internally, and a plan made to have volunteer involvement growing again.</p> <p>Six separate groups totalling 39 volunteers participated in on-site group activities at the BIC facility</p>	<p>Send out email to past volunteers and advertise the revitalised Guardian volunteer program on social media.</p> <p>Continue volunteer recruitment and training sessions.</p>
<p>Output indicator 3.6</p> <p>NTCI App will be updated to provide detailed information about protected areas, enhance user engagement with visuals and descriptions of the protected areas, and offer educational content about endemic and threatened species in the protected areas.</p>	Website updates completed, NTCI App updates started, App scheduled for May 2025 launch.	<p>Launch app, promote across platforms, monitor usage statistics.</p> <p>Complete any outstanding updates.</p>

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

Project summary	SMART Indicators	Means of verification	Important Assumptions
<b>Impact:</b> Grand Cayman's flagship protected areas thrive, through effective management, safeguarding key populations of endemic wildlife.			
<b>Outcome:</b> Improved condition of protected areas harboring key endemic wildlife populations through effective management plans and additional capacity to implement them.	<p>0.1 Scientific knowledge gaps filled, and data used to inform conservation actions for blue iguanas in two key protected areas, to stabilise the current decline in population numbers and monitor impact of management changes. Data collected is used to develop the NCAP and an updated Red List Assessment.</p> <p>0.2 Updated Population estimates for two priority KBA/IBA trigger species, Grand Cayman parrot and blue iguana, by end of project.</p> <p>0.3 Habitat suitability and important wildlife corridors understood and fed into protected area management, restoration and the NTCI Natural Heritage Protection Strategy.</p> <p>0.4 Management plans are developed and implemented for two protected areas and Protected Area Management Effectiveness is measured and evaluated.</p> <p>0.5 Local capacity improved to support the implementation of protected area management plans, leading to effective baseline data collection, effective invasive predator management and the</p>	<p>0.1 Annual reporting of collated data. A completed NCAP has been approved and an updated IUCN Red List Assessment has been submitted.</p> <p>0.2 Technical reports produced from data to help monitor efficacy and changes and outline future recommendations.</p> <p>0.3 A completed assessment report of prime habitat for blue iguanas and other key species within the protected areas. Important wildlife corridors highlighted in NTCI database. Results used to inform protected area management plans, land acquisition and species action plans.</p> <p>0.4 Management plans approved for Salina Reserve and Colliers Wilderness Reserve. Regular monitoring, technical reports from field visits and annual biodiversity surveys, including plants. Results annually reviewed and shared. Attendance and workshop report from a protected area management effectiveness meeting.</p> <p>0.5 Workshop/training reports where NTCI staff and local volunteers are trained in ecological research methods,</p>	<p>Risk that recruitment and retention of staff and volunteers may be hampered by issues such as the recent COVID-19 crisis. We are confident that we have experience of managing and retaining current staff/volunteers and have worked effectively through the recent pandemic.</p> <p>Assumption that field work and required patrols possible despite extreme weather conditions, COVID-19 restrictions or other foreseeable issues. We believe that with highly experienced in-Territory partners we can effectively plan and manage work schedules and restrictions to ensure that all work is completed.</p>

Project summary	SMART Indicators	Means of verification	Important Assumptions
	long-term monitoring of key populations, habitat and conservation interventions.	data analysis and reporting, and invasive predator management techniques.	
<b>Output 1</b> Enhance in-Territory capability to restore, monitor and manage protected areas.	<p>1.1 Local capacity is increased through recruitment of a Protected Areas Project Manager and seasonal Assistant Field Assistants with training and mentoring from RSPB reserves and ecology network.</p> <p>1.2 Training course developed for capacity building and skills development of current NTCI staff, students, and volunteers. At least 10 in-Territory staff, students or volunteers will complete the training course by end of project. Course to be led by the Protected Areas Project Manager position.</p> <p>1.3 Detailed screening is conducted on target species (racer snakes, green iguanas, anoles) to establish data on emerging disease risk.</p> <p>1.4 Protected area patrols and monitoring for encroachment from neighbouring landowners are conducted by trained staff and volunteers from NTCI at twice a year both on foot and using suitable technology (e.g., drones).</p> <p>1.5 Daily climate data is being recorded from fixed plots within each PA, as a way of early warning of habitat degradation from climate change or other threats.</p>	<p>1.1 Recruitment process completed, and position filled, and contract signed.</p> <p>1.2 Review of training needs; course materials are developed and skilled trainers from within the partnership will lead on teaching and assessing course participants. All participants will be assessed and signed off on completion of training.</p> <p>1.3 Samples shipped to WCS partners for screening. Reports created and data shared.</p> <p>1.4 Reports created. Reporting and documentation of issues will be presented at EAC meetings and with relevant partners.</p> <p>1.5 Fixed weather stations erected in each protected area and data is sent via WIFI and stored monthly. Summary report of findings will be created.</p> <p>1.6 Boundaries are checked annually using suitable technology (e.g., drones).</p> <p>1.7 Report detailing the total metres of trail network that has been established and maintained, and maps showing their location. Shapefiles of the location stored in the GIS database.</p>	<p>Assumption that there will be sufficient interested applicants with the required skills and knowledge to successfully recruit and that staff will remain in post throughout the 3-year contract. There will be no delays, such as problems with visas, to interrupt commencement of employment. We believe that given the experience of the local government partners and NTCI experience of recruitment and visa applications process there will be no delays.</p> <p>Assumption that there is available expertise and knowledge within the key partners, to design, implement and deliver training course for capacity building and that COVID-19 restrictions or other issues, such as hurricanes, will halt training. We are confident that the extensive experience within the partnership will enable us to ensure high quality training is delivered. Due to the availability of online platforms (e.g., Zoom) and on-island expertise, the training course will be successfully delivered without delays.</p> <p>Work is not rendered impossible due to COVID-19 restrictions or weather, e.g., hurricanes. If we believe this to be the case, we will use careful scheduling of activities and make use of technology available. We are confident that</p>

Project summary	SMART Indicators	Means of verification	Important Assumptions
	<p>1.6 All protected area boundaries are recorded and stored in GIS database and monitored annually using suitable technology (e.g., drones).</p> <p>1.7 Trail systems are established and maintained throughout both protected areas for routine and ecological monitoring.</p>		<p>weather stations will function in the harsh environment and be able to send data electronically and we have prior experience with these systems.</p> <p>Trails and boundaries will be maintained and cleared regularly along with regular patrols conducted by trained volunteers and staff. We are confident this will happen as currently does within other protected areas and we have experience with the maintenance of local trails. If we are unable to conduct these patrols by foot, then suitable technology will be used (e.g., drones).</p> <p>Volunteers, staff, and partners have sufficient expertise and knowledge to use technology to help with protected area monitoring. We are confident of this assumption as there is a lot of existing expertise and knowledge within current staff and partners.</p>
<p><b>Output 2</b></p> <p>Management plans for two key protected areas produced and implemented with targeted conservation actions for the focal species: Grand Cayman blue iguana.</p>	<p>2.1 Protected area management plans are developed and implemented for both Salina and Colliers reserves by the end of the project.</p> <p>2.2 Study conducted to estimate blue iguana abundance by habitat type within the protected areas using camera traps.</p> <p>2.3 Study conducted to identify habitat use and range within the protected areas using GPS tracking of adult blue iguanas.</p>	<p>2.1 Management plans developed and approved.</p> <p>2.2. Methodology, equipment and timeline is agreed, and relevant plans and protocols are updated and in place. Updated population estimates are incorporated into the IUCN Red List Assessment update for the blue iguana.</p> <p>2.3 Data collated and formulated into reports and shared.</p>	<p>Staff retention and expertise allows them to achieve and implement outputs. We are confident this will hold true as we have required support and expertise in partners to ensure work is supported. Thorough screening during the interview process from experienced partnership will select suitable candidates to live/work on Cayman.</p> <p>Necessary skills and knowledge are available for field techniques and technology use to conduct field work and analysis results. We believe this will</p>



Project summary	SMART Indicators	Means of verification	Important Assumptions
	<p>2.4 Preferred habitat types for blue iguana identified within two protected areas.</p> <p>2.5 A GIS database is developed to assess habitat suitability and document habitat range and distribution for blue iguanas in two protected areas.</p> <p>2.6 By the end of the project, all blue iguana habitat and distribution information is combined to quantify and identify land and 'good habitat' options sufficient to expand, restore or establish protected areas.</p> <p>2.7 Corridors identified for blue iguana movement continuity between protected areas or on private land within the species' range.</p> <p>2.8 Updated Red List Assessment completed for the blue iguana and submitted to IUCN by the end of the project. Update information related to IBA/KBA for Salina Reserve by end of the project.</p> <p>2.9 NCAP completed and approved by the end of the project.</p>	<p>2.4 Data gathered via surveys, photographs, camera traps and drones, and GPS tracking.</p> <p>2.5 Database developed and updated regularly.</p> <p>2.6 Report created to outline key habitats within the protected areas.</p> <p>2.7 Reports, maps and photographic evidence.</p> <p>2.8 IUCN update report submitted. IBA/KBA update report submitted.</p> <p>2.9 NCAP document completed and approved.</p>	<p>hold true as recruited staff will be support by current NTCI staff and experienced partners, with expertise with methodology and working on Cayman.</p> <p>Field work is not rendered impossible due to COVID-19 restrictions or weather, e.g., hurricanes. We believe this will be the case and will use careful scheduling of activities and make use of technology available to minimize any impact or delays.</p>
<p><b>Output 3</b></p> <p>Improve protected area management to support blue iguana and other priority wildlife conservation through effective</p>	<p>3.1 Continuous invasive predator monitoring, trapping and removal is conducted by staff and trained volunteers, and results analysed annually to look at impact within</p>	<p>3.1 Ongoing data analysis carried out and an annual report compiled.</p> <p>3.2 Data analysis carried out and reports created.</p>	<p>Invasive predator monitoring and controls are properly implemented and evaluated. We believe this will happen given the experience of the NTCI and partners.</p>

Project summary	SMART Indicators	Means of verification	Important Assumptions
community engagement and capacity building.	<p>protected areas and inform long term efforts required.</p> <p>3.2 Biodiversity surveys are established and conducted at regular intervals for target species – in particular, IBA trigger species and the Grand Cayman parrot, native reptiles and plants within the protected areas and results are analysed at the end of the project to explore protected area management efficacy.</p> <p>3.3 A public education and outreach campaign is developed to support conservation of key endemic wildlife and better practises in protected area management, highlighting key issues and shaping behaviour change.</p> <p>3.4 Updated educational signage at Colliers Wilderness Reserve and the BIC facility educational hub to increase knowledge and awareness of issues, research and solutions.</p> <p>3.5 Current volunteer program is expanded to assist with more fieldwork, data collection and invasive predator management. At least 10 new volunteers will have signed up by the end of each project year, resulting with at least 30 trained volunteers by the end of the project.</p> <p>3.6 NTCI App will be updated to provide detailed information about protected areas, enhance user engagement with</p>	<p>3.3 Education, publicity and survey materials created. Conduct analysis of engagement with social media communications. Document outreach through an outreach tracking form and database.</p> <p>3.4 New signage is designed, approved and installed at relevant sites.</p> <p>3.5 New volunteers are recruited, trained and added to the volunteer database.</p> <p>3.6 NTCI App will be updated and promoted. Reports will be produced outlining the changes made and documenting user sign-up and engagement on the app.</p>	<p>Trained volunteers continue to commit time and efforts to support invasive predator management and protected area monitoring for the long term. We are confident this will happen as the NTCI has good history of long-term volunteers and a large number of interested and committed individuals keen to be trained.</p> <p>Field work and surveys are not stopped due to weather conditions or other unforeseen issues e.g., COVID-19 restrictions. We will use effective scheduling, planning and monitoring of changes in weather and other situations to mitigate this. Flexibility in the work schedule and by using cameras will help mitigate this.</p> <p>NTCI app will be well received and have positive uptake and engagement. We believe this will be the case as there is a history of positive engagement and participation through NTCI social media channels and email. We will advertise and promote the use of this app widely.</p>

Project summary	SMART Indicators	Means of verification	Important Assumptions
	visuals and descriptions of the protected areas, and offer educational content about endemic and threatened species in the protected areas.		
<b>Activities</b>  1.1 Recruitment of Protected Areas Project Manager and seasonal Field Assistants as needed. 1.2 Develop training course materials and content. 1.3 Minimum of 7 in-Territory staff, students and volunteers attend training course annually. 1.4 Samples are collected from target species within both protected areas for disease analysis. 1.5 Disease samples are sent off island for detailed analysis and results reported and shared. 1.6 Two patrols are conducted in each protected area annually. 1.7 Suitable fixed plots within each of the protected areas are selected and cleared for installation of weather stations. 1.8 Weather stations installed in each protected area and climate data is recorded. 1.9 Trails established and maintained for each protected area. 1.10 Boundaries clearly marked and accessible for monitoring in each protected area, if possible. A drone survey will be completed annually for the entire boundary of the Salina Reserve and Colliers Wilderness Reserve. 2.1 Development and implementation of management plan for Colliers Wilderness Reserve. 2.2 Development and implementation of management plan for Salina Reserve. 2.3 Distance sampling survey carried out in Colliers Wilderness Reserve to monitor blue iguana population. 2.4 Distance Sampling survey carried out in Salina Reserve to monitor blue iguana population.			



Project summary	SMART Indicators	Means of verification	Important Assumptions
<p>2.5 Camera trap grid designed and set up to monitor population abundance of blue iguanas within the protected areas.</p> <p>2.6 Capture and tag wild adult iguana for GPS tracking for age and sex survivability and dispersal emigration.</p> <p>2.7 Use data collected from studies to identify preferred habitat type for adult iguanas</p> <p>2.8 Look at preferred habitat differences between wild born vs released iguanas.</p> <p>2.9 Develop GIS database.</p> <p>2.10 Analyse data and use results to quantify and identify land and suitable habitat options to expand, restore and establish protected areas.</p> <p>2.11 Use data collected to identify important wildlife corridors for blue iguana movement.</p> <p>2.12 Update the Red List assessment for the blue iguana.</p> <p>2.13 Complete NCAP for the blue iguana.</p> <p>3.1 Determine and implement an appropriate trapping schedule for invasive predators within Salina Reserve.</p> <p>3.2 Determine and implement an appropriate trapping schedule for invasive predators within Colliers Wilderness Reserve.</p> <p>3.3 Complete presence and absence targeted biodiversity survey for endemic fauna and flora and IBA trigger species within both protected areas.</p> <p>3.4 Design and implement a targeted education and outreach campaign to support the conservation of key endemic wildlife and better practices in the management of protected areas.</p> <p>3.5 Current volunteer program is expanded by at least 10 new volunteers annually.</p> <p>3.6 Updated signage to be designed and installed within Colliers Wilderness Reserve and at other key sites including the BIC education hub to increase the knowledge of project and outcomes.</p> <p>3.7 Mobile application (NTCI App) to be updated to provide users with information on the ecological and cultural significance of protected areas, as well as details about endemic and threatened species, and biodiversity conservation and management.</p> <p>3.8 Mobile application is promoted and used by at least 1,000 people.</p>			

**Table 1 Project Standard Indicators**

<b>DPLUS Indicator number</b>	<b>Name of indicator</b>	<b>If this links directly to a project indicator(s), please note the indicator number here</b>	<b>Units</b>	<b>Disaggregation</b>	<b>Year 1 Total</b>	<b>Year 2 Total</b>	<b>Year 3 Total</b>	<b>Total to date</b>	<b>Total planned during the project</b>
DPLUS-A01	Number of people in eligible countries who have completed structured and relevant training	0.5 Local capacity improved to support the implementation of protected area management plans, leading to effective baseline data collection, effective invasive predator management and the long-term monitoring of key populations, habitat and conservation interventions.  1.2 Training course developed for capacity building and skills development of current NTCI staff, students, and volunteers. At least 10 in-Territory staff, students or volunteers will complete the training course by end of project. Course to be led by the Protected Areas Project Manager position.	People	Men & Women (was not separated by gender in previous years)	97	104	7 (6 men & 1 woman)		10 (men and women combined)
DPLUS-A03	Number of local or national organizations with enhanced capability and capacity.	0.5 Local capacity improved to support the implementation of protected area management plans, leading to effective baseline data collection, effective invasive predator management and the long-term monitoring of key populations, habitat and conservation interventions.  1.1 Local capacity is increased through recruitment of a Protected Areas Project Manager and seasonal Assistant Field Assistants with training and mentoring from RSPB reserves and ecology network.	Number	Other – Non-profit Non-Governmental Organization	0	0	1	1	1
DPLUS-B01	Number of new or improved habitat management plans available and endorsed	0.4 Management plans are developed and implemented for two protected areas and Protected Area Management Effectiveness is measured and evaluated.  2.1 Protected area management plans are developed and implemented for both Salina and Colliers reserves by the end of the project.	Number	New	0	0	0	0	2

DPLUS Indicator number	Name of indicator	If this links directly to a project indicator(s), please note the indicator number here	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DPLUS-B07	Number of policies with biodiversity provisions that have been enacted or amended.	0.1 Scientific knowledge gaps filled, and data used to inform conservation actions for blue iguanas in two key protected areas, to stabilise the current decline in population numbers and monitor impact of management changes. Data collected is used to develop the NCAP and an updated Red List Assessment.  2.9 NCAP completed and approved by the end of the project.	Number of instruments	Enacted	0	0	0	0	1
DPLUS-C03	Number of new conservation or species stock assessments published	0.1 Scientific knowledge gaps filled, and data used to inform conservation actions for blue iguanas in two key protected areas, to stabilise the current decline in population numbers and monitor impact of management changes. Data collected is used to develop the NCAP and an updated Red List Assessment.  2.8 Updated Red List Assessment completed for the blue iguana and submitted to IUCN by the end of the project. Update information related to IBA/KBA for Salina Reserve by end of the project.	Number	Blue Iguana ( <i>Cyclura lewis</i> )	0	0	0	0	1
DPLUS-C06	Analytics for funded project-specific social media posts	3.6 NTCl App will be updated to provide detailed information about protected areas, enhance user engagement with visuals and descriptions of the protected areas, and offer educational content about endemic and threatened species in the protected areas.	Number	Uptake/Downloads	0	0	0	0	1,000

**Table 2      Publications**

<b>Title</b>	<b>Type</b> (e.g. journals, best practice manual, blog post, online videos, podcasts, CDs)	<b>Detail</b> (authors, year)	<b>Gender of Lead Author</b>	<b>Nationality of Lead Author</b>	<b>Publishers</b> (name, city)	<b>Available from</b> (e.g. weblink or publisher if not available online)
None.						

## Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the <b>correct template</b> (checking fund, scheme, type of report (i.e. Annual or Final), and year) and <b>deleted the blue guidance text</b> before submission?	✓
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> putting the project number in the Subject line.	✓ (main report)
<b>Is your report more than 10MB?</b> If so, please consider the best way to submit. One zipped file, or a download option, is recommended. We can work with most online options and will be in touch if we have a problem accessing material. If unsure, please discuss with <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> about the best way to deliver the report, putting the project number in the Subject line.	✓ (annex 4)
<b>Have you included means of verification?</b> You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
<b>Have you provided an updated risk register?</b> If you have an existing risk register you should provide an updated version alongside your report. If your project was funded prior to this being a requirement, you are encouraged to develop a risk register.	✓
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 15)?	n/a
Have you involved your partners in preparation of the report and named the main contributors	✓
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	