

Darwin Plus Main: 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: 30th April 2024

Submit to: BCF-Reports@niras.com including your project ref in the subject line

Darwin Plus Project Information

Project reference	DPLUS136
Project title	Anguilla Shark Conservation: social acceptance, spatial protection and legislative reform
Territory(ies)	Anguilla
Lead Partner	Marine Conservation Society
Project partner(s)	Anguilla National Trust (ANT), Fisheries and Marine Resources Unit-Department of Natural Resources (FMRU), University of Exeter (UoE)
Darwin Plus grant value	£371,004
Start/end dates of project	Jul 2021-Jan 2025
Reporting period (e.g. Apr 2023-Mar 2024) and number (e.g. Annual Report 1, 2)	Apr 2023-Mar 2024
Project Leader name	Amdeep [REDACTED]
Project website/blog/social media	
Report author(s) and date	Farah [REDACTED], Amdeep [REDACTED], Louise [REDACTED]

1. Project summary

Anguilla Shark Conservation (ASC) is a multidisciplinary project that will increase knowledge of Anguilla’s shark populations, their habitats and conservation needs, while developing local ownership of conservation interventions through comprehensive community engagement. ASC is currently conducting Anguilla’s first ecological baseline assessment of sharks; integrating fisher knowledge; taking account of community perceptions and will use all of the above to inform a research action plan to inform future species conservation action plans, and that considers community values, co-existence, new legislation, and spatial protection of sharks and their habitats.

2. Project stakeholders/partners

Although managed by UK-based Marine Conservation Society, this project is fully supported and driven by local partners who have been key in ensuring local stakeholder engagement, emerging from locally-identified data gaps and biodiversity conservation needs. Over the last year of the project, a range of stakeholders have been included in our work, namely:

Government of Anguilla – Minister of Environment. The Minister responsible for environment, along with the Permanent Secretary responsible for environment have been kept abreast of project implementation progress through regular Heads of Department meetings during which this project has been presented and results and planned activities have been discussed. With the Government of Anguilla’s interest in supporting and developing Anguilla’s fishery, there is high level of understanding of the need for evidence-based fisheries management and the importance of addressing data gaps existing within the Government of Anguilla’s Fisheries Development Plan. Results of our work, including both the social and natural resources sciences aspects, are playing key roles in shaping future high-level management recommendations and interventions. They also led to a new initiative, funded by UK-based Fishmongers, to enhance fisheries managers-fishers relationships through shared understanding, dialogue and collaboration.

Government of Anguilla agencies (Fisheries-Unit Department of Natural Resources) and Statutory Bodies (Anguilla National Trust), as partners in the project, sit on the Project Steering Committee, have led on-the-ground aspects of this project including the development and implementation of the communications and outreach plan, the collection of BRUV data, as well as assisting with the implementation of the community voice methods (CVM) and presentation of CVM reports. These local agencies will continue to assist with project implementation, monitoring and evaluation and public outreach for the remainder of the project.

Local Dive operators and divers have been engaged in citizen science activities to record and report shark sightings.

Local fishers have previously been engaged through their participation in Local Ecological Knowledge (LEK) surveys and the CVM, both designed to gain an improved understanding of the ecology, distribution, and value of sharks in Anguilla. Fishers also attended a series of community-based workshops during which the results of our CVM work were presented and verified.

Members of the **wider public** have been directly engaged within the CVM process, with participants attending workshops to present the results of our CVM work and to help identify areas that require additional work as it relates to both shark and ray conservation and public outreach and engagement. Project outreach activities conducted over the last year have also raised local awareness of the project.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1. Development of first ecological and social science baselines regarding sharks in Anguilla

Activities 1.1-1.8 were completed in Year 1 and Year 2.

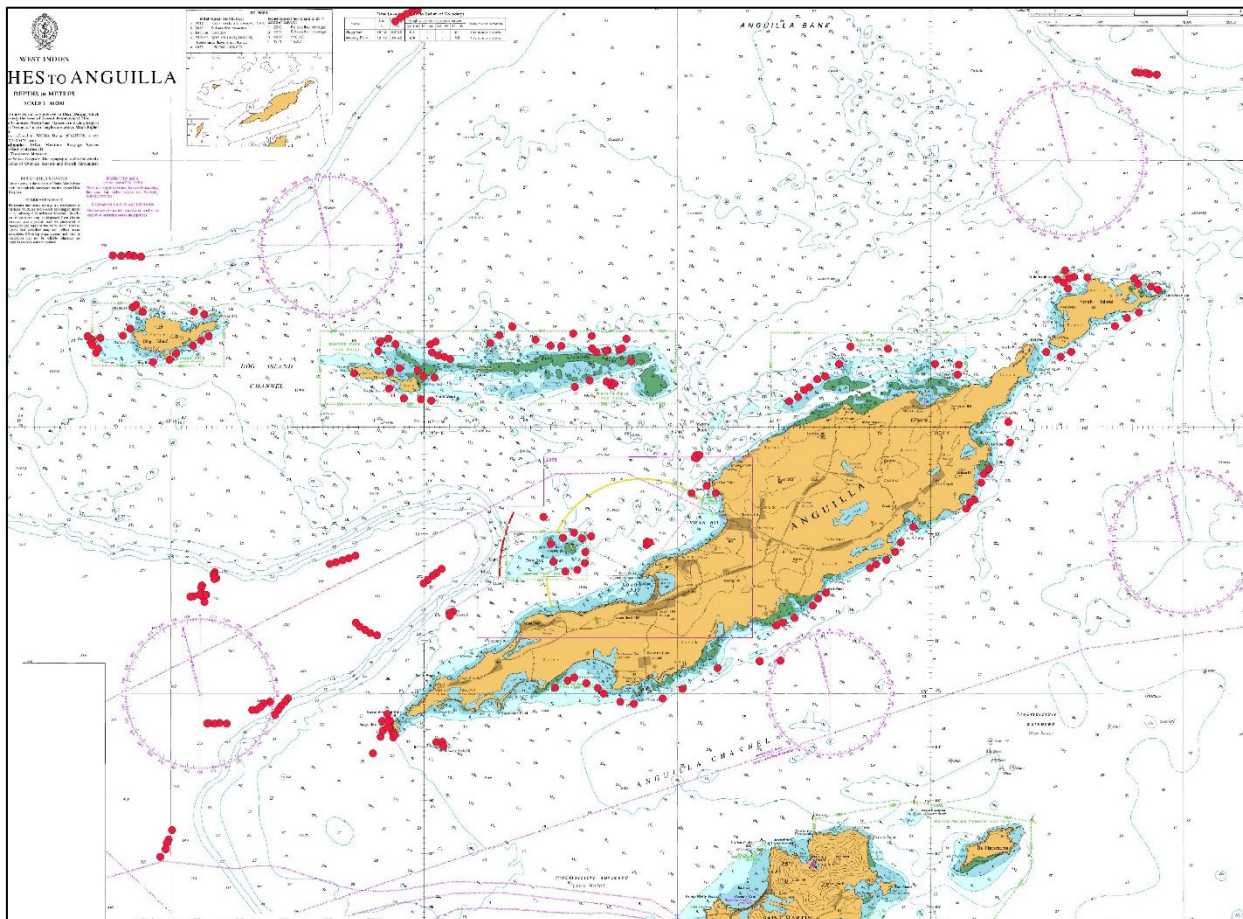
On-going and planned activities related to the use of BRUVS and the collection, analysis and application of ecological data included:

Activity 1.9 Collect baseline scientific data of shark species through the deployment of BRUVS at a minimum of 24 sites within Anguilla’s waters over two years; and

Activity 1.10 Analyse BRUVS footage to determine shark presence and diversity.

To date, we have completed five BRUV deployment sessions (July 2021, October 2021, May 2022, June 2023 and November 2023). BRUVS have so far been deployed at total of 273 unique locations around Anguilla and its offshore cays (Map 1), with a total of 273 videos collected. In Year 3 of the project, in addition to deploying BRUVS to the benthic environment, we began focusing our efforts on the mid-water column to record pelagic shark species.

Mid-water column BRUV deployment involved stringing five BRUVS together and allowing them to drift over a two-hour period (as compared to 60-minute stationary deployments of benthic BRUVS). With the addition of the mid-water BRUVS, we were able to capture, for the first time, footage of tiger sharks, bringing total number of species recorded to seven, including blacknose shark *Carcharhinus acronotus*, Caribbean reef shark *Carcharhinus perezi*, nurse shark *Ginglymostoma cirratum*, lemon shark *Negaprion brevirostris*, tiger shark *Galeocerdo cuvier*, southern stingray *Hypanus americanus* and spotted eagle ray *Aetobatus narinari*. We deployed BRUVS in June 2023 with hopes of capturing breeding and pupping periods and while this is likely the time of such activity (based on published papers and fisher consultation), we were unable to locate pupping or nursery grounds during the deployment period despite our best efforts.

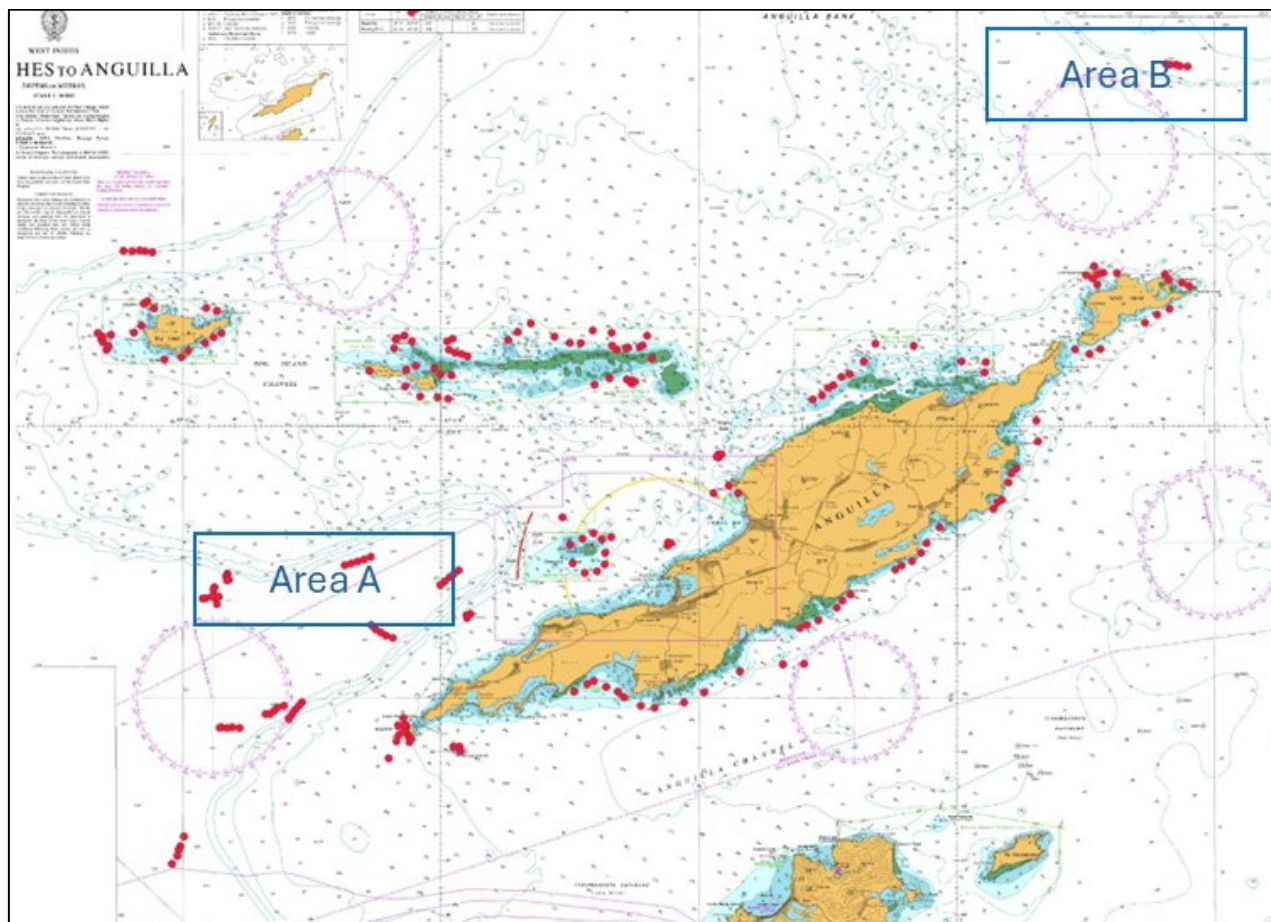


Map 1. Locations (red filled symbols) of BRUV deployments undertaken across Anguilla and its offshore cays during years 1, 2 and 3 of the DPLUS136 project.

Activity 1.11 Use BRUVS data to inform the placement of IR-enabled long-term video cameras.

Following the five phases of BRUV deployments in Years 1 through 3 of the project, we were able to identify priority sites for the deployment of IR-enabled long-term video cameras, focusing on deeper waters (>150m depth) in geographic areas that had either yet to be surveyed, areas under-represented within existing the surveys, or in existing regions but at seabed depths (Map 2). The IR cameras are scheduled to be deployed in November 2024. These cameras should reveal different aspects of the shark community using Anguillan waters and have the potential to reveal species such as Cuban dogfish (*Squalus cubensis*) and bluntnose six gill sharks (*Hexanchus griseus*), which have regional and global distributions respectively, but at depths often outside typical marine biodiversity surveys. The two identified survey areas are adjacent to rapid drop offs where the seabed transitions from shallow coastal to deep water regions over

short geographic distances. These habitats are typical for deepwater sharks, which are able to move between relatively nutrient rich shallower waters, and deeper waters where predation pressure is lower.



Map 2. Proposed areas (A and B) of IR-enabled camera deployments in November 2024.

With regards to the collection, analysis and application of social science data collected using the Local Ecological Knowledge (LEK) Knowledge, Attitude, Perception (KAP) and Community Voice Method (CVM), interviews were all undertaken on Years 1 and Year 2 of the project (Activities 1.13-1.14).

Activities conducted and/or completed in Year 3 included:

Activity 1.15 Transcribe and analyse filmed interview data, write analysis summary report, and produce CVM film output.

Complementing ecological assessments, Community Voice Method (CVM) interviews conducted in Year 2 of the project were transcribed externally for analysis. All interviews were coded in NVivo based on (a) the interview structure and (b) common themes. Interviewees were also classified to ensure the film output was representative of a wide variety of stakeholder groups, genders and ages. All partners provided feedback to multiple iterations of the film, resulting in a finalised 30-minute product developed through Premier Pro software. This film can be accessed on this bespoke [MCS project page](#).

Activity 1.16 Hold at least three CVM film screenings and stakeholder workshops to present and discuss biological and social science findings from Output 1 and, using a participatory process, identify conservation action priorities for Anguilla's sharks.

Preparatory work to complete this activity included project partners collectively developing and finalising a workshop plan and itinerary. This informed a comprehensive public CVM consultation process in June 2023, where the CVM film was screened within three different communities across Anguilla (Island Harbour, The Valley, Sandy Ground). Generally, the events involved providing participants with a broad overview of the project (led by ANT) before feeding back findings of the biological research (led by FMRU and Matt Witt) and the LEK and KAP surveys (led by ANT). The CVM documentary was then screened, followed by break-out groups facilitated by project partners. The screenings, attended by a total of 50 individuals, provided community members and stakeholders with an opportunity to discuss their positions, values, and perspectives as they relate to shark and ray research, conservation, and management. Results of these workshops are presented in a review paper as well as an informative, easy to share brief/pamphlet to support accessible dissemination. Key findings indicate that (a) shark conservation/management is required but that additional data should be collected to ensure that management decisions are data-driven, (b) outreach on promoting the important role that shark species play within the marine ecosystem (to mitigate fear and misunderstanding of sharks) and finally (c) that the marine environment is critically important for Anguillians – for food, recreation, livelihoods, and mental health. Please see Evidence 4.1 for all evidence relating to this activity including a CVM workshop report.

Following from these activities, over the last year of the project we have also been conducting preparatory work as it relates to species action planning and presenting results of our work, including:

Activity 1.17 Finalise draft shark research action plan in preparation for consultation at participatory action planning workshop.

During the CVM film screenings, we took the opportunity to have conversations with those attending not only about their views and perceptions regarding sharks, rays, and their management, but also about gaps in knowledge and understanding. While some of the topics and issues raised related to knowledge could be addressed through more directed outreach efforts, participants also identified four key areas that would require additional research effort, including: (1) additional camera surveys at night and offshore (as most research has been focused on coastal waters in daylight hours); (2) confirmation and identification of breeding grounds; (3) determining the economic value of sharks for fishers i.e how dependent fisher livelihoods are on sharks; and (4) determining how fishing activity may impact shark and ray populations (Evidence 4.2). Following from these stakeholder consultations and discussions, project partners discussed additional research requirements and compiled all data and information needs into a comprehensive research action plan (Evidence 4.2).

Activity 1.18 Write draft manuscript for submission and peer-review.

A manuscript presenting results of this project (BRUV deployments and CVM) is currently being drafted. Additional BRUV data from planned surveys scheduled for April 2024 and November 2024 will be integrated into the manuscript.

Output 2. Evidence-based shark research action plan produced through a participatory process

With a literature review of national priorities, legislation and regulations for sharks (Activity 2.1) having been completed in Year 2 of the project, our efforts in Year 3 focused on:

Activity 2.2 Plan and implement participatory action planning workshop to develop the research action plan and

Activity 2.3 Write-up, peer-review and publish research action plan.

The research action plan for Anguilla's sharks and rays was developed through a two-stage process. The first involved stakeholder consultation during the screening and discussion of the CVM documentary which was attended by diverse groups of stakeholders, including commercial, subsistence and sport fishers, divers, tourism representatives, educators and students, and members of the general public who were interested in learning and hearing more about the work that was/is being undertaken. As described above (Activity 1.17), individuals identified four key areas requiring additional research effort. Following these stakeholder consultations, all four

project partners held a one-day meeting to review the recommendations and identify additional/potential priority areas based on the ecological and socioeconomic surveys that we have so far conducted, while also considering how the work that we are conducting in Anguilla fits within the larger regional and global picture. These stakeholder consultations and project partner discussions resulted in the development of a 10-year shark and ray research action plan (Evidence 4.2).

Output 4. Enhanced national capacity to plan manage, implement and monitor shark conservation action. Supported by improved technical skills and greater public awareness

Activities related to Output 4 in Year 3 focused primarily on outreach:

Activity 4.7 Publicise and report on project progress, results and lessons learned through national and international media and directly to national groups, cross-territory stakeholders, international scientific community, and the Government of Anguilla Executive Council

Over the last year, we have focused our efforts on raising awareness and understanding amongst the general public about sharks, rays, and this project.

We have also shared results internationally, leading to an exciting partnership with the Imperial College of London. In November 2023, the Fisheries and Marine Resources Unit presented marine conservation work being undertaken in Anguilla during the Great Blue Oceans webinar, attended by 55 individuals. The presentation included an overview of the project, its objectives and results. Filippo Varnier, a Masters student at the Imperial College of London, reached out to us following the presentation about collaborating on the development of an AI software (SharkTrack) to help sift through BRUVS footage and identify/classify elasmobranchs. Using the significant amount of data collected through our project, Filippo was able to test the software and its effectiveness at machine learning to correctly identify species as they appear within the footage. Initial results of these test runs indicate that SharkTrack requires just two minutes of manual classification per hour of video, representing a 97% reduction of manual analysis time compared to traditional methods which involve watching the entire captured footage, noting species of sharks and times that they appear on the footage. Traditional BRUV footage analysis is laborious and extremely time-consuming. The benefits of (open source) SharkTrack are very promising and we are looking forward to trialing it ourselves during the next round of deployments. A manuscript has also been drafted presenting these results, with project partners included as co-authors.

In addition, over the last year of this project, on a national level we've reached 143 residents of Anguilla through 6 presentations. We also increased our social media presence with 15 posts on Facebook, Instagram and LinkedIn (Evidence 4.3). The webpage hosting the short film emerging from our CVM work has also been posted on the [MCS website](#) and has received 457 unique views in the last 12 months, with users returning to the page on average over three times (Evidence 4.3).

3.2 Progress towards project Outputs

Output 1. Development of first ecological and social science baselines regarding sharks in Anguilla

As indicated in our Year 2 report, data on shark diversity distribution and abundance in Anguilla was limited prior to this project. We also generally understood – or were under the impression – that a shark fishery was not a significant component of Anguilla's fishing industry, but we did not have tangible data to support this assumption. Over the last three years, through our Local Ecological Knowledge and Knowledge Attitudes and Perception surveys, our BRUVS deployments and our CVM work, we are building our ecological as well as socioeconomic knowledge and understanding of the species and their values to local communities, including fishers, tour operators, divers and the general public. As identified by stakeholders, we are still missing some key data, including shark presence (species, distribution) in deeper waters as well as breeding and nursery grounds. Additional BRUV deployments will be conducted in the final

months of the project to fill in identified ecological data gaps, along with more directed fisher surveys regarding the economic importance of the shark fishery to local fishers will also help inform next management and conservation steps. This additional work is planned for Year 4 of the project.

Our indicators for this output speak to the number of BRUV deployments and the number of people we involve/include in the social aspects of this project. These are still relevant indicators as these numbers directly relate to the amount of field data that is collected and the number of people from the wider Anguillian population who have been directly engaged and who have provide qualitative data to the project. The final indicator for this output is the publication of a peer-reviewed manuscript; this indicator reflects the quality and robustness of our data.

Output 2. Evidence-based shark research action plan and supporting legislative amendment recommendations are produced through a participatory process

In Year 3 of the project, we submitted a Change Request, amending the original intent of a shark action plan with a research action plan. Over the course of ecological and social data collection programme, and following the results of our CVM presentations and consultations, we realised how much more we still need to know before evidence-based fisheries and conservation management decisions can be made. This project has allowed us to create species lists and to assess the relative abundance of species in Anguilla's waters, but recognised that we needed to build on this data and collect data through additional seasons and years so that presence and distributions can be assessed in more detail. We also need to be able to better understand migratory movements and patters – for example, are the sharks that we're recording in Anguilla resident? Or do they migrate and, if so, from where/how far? Which species breed in Anguilla's waters and where do they pup? The answers to these questions and other aspects to the ecology of sharks in Anguilla are required to better inform shark and ray conservation and management in Anguilla.

We also recognise that sharks and rays, regardless of the level of the fishery, are a sensitive subject and that this sensitivity may not actually be about the sharks and rays themselves, but rather the perception of increased restrictions on one fishery may be a precursor to additional management interventions on other fisheries. In addition, in conversation with local stakeholders, there are many differing views and ideas about whether shark and ray populations should be managed and what management measures would be most appropriate. Many of these views and opinions are based on feelings rather than sound evidence or experiences from other islands. We recognise that we need to do more in increasing our own and also the wider community's understanding of what management measures would entail and the expected impact that they may have. We also recognise that we need to do more work to help local communities understand the science behind conservation management decisions which may foster more support for any future proposed actions as well as open up a wider, more-informed conversation around management activities and what would be appropriate/acceptable to Anguilla. This will take more time than what we have within this project. The change from a species action plan to a research action plan is therefore a reflection that we need to be more circumspect.

The revised indicator for the Output – a research action plan – is therefore still relevant and has been achieved.

Output 3. At least two priority interventions prescribed by the shark research action plan are implemented and monitored

This output will be achieved in Year 4 of this project.

Output 4. Enhanced national capacity to plan, manage, implement and monitor shark conservation action, supported by improved technical skills and greater public awareness and cooperation

We continue to increase the general public's awareness of sharks and their importance and have directly engaged an additional 54 community members through continued CVM efforts

(Evidences 4.1 & 4.3) and have informally spoken to hundreds of others one-on-one about the project as well as the ecological value of sharks and rays. While these informal discussions are more difficult to capture and quantify in terms of evidence and output, they are still essential on small islands where communities are tightknit and information (including rumours and misinformation) is spread quickly. We have also seen these conversations spread on social media where images of sharks on wrecks taken and shared by divers or images of sharks being caught by line spark discussion and debate, with both sides – the need for protection and sharks as being part of a fishery – being voiced. We monitor these posts and they help us frame our conversations with different audiences. Training of staff volunteers have taken place in Year 1 through Year 3 of this project, with local staff and volunteers now competently applying their knowledge and skills especially through continued BRUV deployment. University of Exeter has continued to support local capacity and this year, we deployed mid-water BRUVS which was new for our local teams, with additional training provided to 5 FMRU-DNR and ANT staff. We've held six public presentations reporting on results of BRUV, taking advantage of Matthew Witt's (University of Exeter) presence on island, and three public presentations reporting on the results of CVM. We have also reached thousands of individuals through our social media networks.

Our indicators for this output directly relate to the number of people engaged in the project and the amount of capacity built within local agencies and stakeholder groups. These indicators are therefore very relevant to the overall impact of the project and will directly highlight the level to which we achieve this project output.

3.3 Progress towards the project Outcome

Outcome: Anguilla's apex predators have a greater chance of recovery through the implementation of comprehensive action plans, strong management competencies and a more supportive civil society

The overall project outcome focuses on the development of frameworks to guide the conservation of threatened shark species. Over the last three years of this project, we have focused on baseline data collection that will allow us to make scientifically-informed recommendations to policy makers. Alongside ecological data collection, this project has a strong social science component that is being implemented alongside a communication and outreach campaign. The approaches are not only complementary but also essential as long-term conservation of habitats and species, especially those of cultural and/or socio-economic value, requires community understanding, acceptance and buy-in.

Measurable indicator 01: Shark and ray research action plan created and an implementation schedule devised by project partners following consultation with the local community and wider scientific networks

Although we're continuing to collect additional data, we have still been able to identify additional gaps that fall outside of what we are able/will be able to accomplish through this project. In consultation with stakeholders, experts in the field, and a review of regional and international work and best practice, we have already developed a comprehensive research action plan to guide long-term, evidence-based, data-driven elasmobranch conservation (Evidence 4.2).

Measurable indicator 02: Workplans and budgets of responsible national agency and supporting partners demonstrate intention to continue implementing action plans beyond the life of this project

Continuation of the work initiated through this project will depend on local interest and capacity. The research action plan developed through this project clearly identifies additional work that will be needed to effectively conserve and manage Anguilla's shark and ray species. Through the capacity that we've developed as well as the partnerships that have established, including with the University of Exeter, the Caribbean Shark Coalition, the UK Government's Blue Belt (and Blue Abacus) programme, and the Imperial College of London, we have leveraged this project and this work, creating opportunities to continue to build on progress so far made. The ANT will be reviewing their strategic plan during the last quarter of 2024 and FMRU-DNR are currently exploring how to further integrate Blue Belt priorities, including marine park as well as more

comprehensive data-driven fisheries management, into their work programmes. Preliminary discussions have also been held between local partners and the University of Exeter of next steps building on the results of this project, including examining the value and potential for the identification of shark and ray important areas and initiating a comprehensive bycatch reduction programme with fishers.

Measurable indicator 03: Vulnerable and endangered shark species are protected in Anguilla's waters by law

We recognise that this is an ambitious indicator and one that we have reconsidered based on the work that we've conducted and reviewers' suggested amendment of our project's Outcome statement (which we made). Based on stakeholder sensitivities it is not likely within the time frame of this project that vulnerable and endangered shark species in Anguilla will be added to Schedule 1 of the Biodiversity and Heritage Conservation Act. While we have identified Endangered species in Anguilla's waters (blacknose shark, Caribbean reef shark, spotted eagle rays), after careful consideration and weighing potential backlash from stakeholders who are not yet aware or prepared enough, we have decided that instead of pursuing listing on Schedule 1 (which would trigger the essential prohibition of take), we would instead adopt a softer, more measured approach, beginning with the formal recognition of relevant species as Endangered or Vulnerable, which would instead trigger the requirement for the development of species conservation plans which would identify appropriate management measures, including for example, closed seasons, closed areas, catch limits. Our work through this project has also focused on distribution of these species and, working in tandem with another Darwin-funded project (DPLUS137) which focuses on enhancing management of Anguilla's marine parks, there is an opportunity to effectively protect shark and ray species within marine park waters as these sites will become no-take/replenishment areas (through legislative amendments that are currently being drafted by the Attorney General's Chambers) (Evidence 4.4). We are therefore trying to take a realistic, balanced approach to shark conservation in Anguilla. Sharks and rays will be protected within Anguilla's marine parks, there are future opportunities to expand the marine park network if data suggests the need to do so, and by at least formally recognising Vulnerable and Endangered shark and ray species through the Biodiversity and Heritage Conservation Act, we are creating an enabling environment for effective management of the species/fisheries outside of protected areas.

3.4 Monitoring of assumptions

Executive Council approves Shark SAP and legislative recommendations and continues to support the effective management of Anguilla's threatened and at-risk shark species.

This assumption is no longer relevant as we have changed the outputs and indicator. The Research Action Plan has been developed and has been adopted by FMRU-DNR with support from the ANT. The Research Action Plan does not require Executive Council approval although steps towards its implementation are presented within operational budgets and applications for additional external funding, which are signed-off by the Permanent Secretary and/or the Minister of Environment. The Minister of Environment has made it clear that the Blue Belt Initiative and enhanced fisheries management are amongst the top priorities for her Ministry and she has been actively supporting FMRU in the implementation of their work programmes.

National strategy correctly identifies and address main threats, capacity needs, and resource to conserve and protect species.

This assumption is no longer relevant as the output and indicator has changed from the development of a conservation action plan to a research action plan. The Research Action Plan, as presented, will ensure that conservation action plans that will be developed post-project address main threats, capacity needs, and resources.

Major field activities can be rescheduled in extreme weather events affect Anguilla during the project period.

During Year 3 of the project, we have been fortunate enough to have not been affected by any severe weather events. Additional BRUV deployments and structured stakeholder engagement

are all planned for outside of the peak hurricane season (September-October) in Year 4 of the project.

The work is not significantly impacted by further COVID-19 restrictions.

This assumption is no longer relevant as all COVID-19 restrictions were lifted in 2022. At the same time, we are aware that COVID-19 is still present and circulating. Staff have been taking necessary precautions to limit transmission through proper hygiene and by taking sick leave when unwell.

BRUV equipment perform as stated and do not suffer from equipment failure/loss.

We have been fortunate not have been impacted by equipment failure or loss although we are keenly aware that this will always be a risk when deploying equipment in the marine environment. As we have two more seasons of deployments scheduled, we have maintained contact and relationships with the Blue Abacus programme (we are using the BRUVS that have designed and provided to FMRU) as well as a US-based company that has developed the IR BRUV system. They are available to assist us should we encounter any problems.

Inshore, offshore and sports fishers are willing to attend shark by-catch reduction workshops.

In order to maximise reach, by-catch reduction workshops will be scheduled for times when additional training and outreach is already being provided to fishers, such that it is integrated into other information and training programmes rather than being a stand-alone offering. For example, outreach activities with fishers are scheduled for the Government of Anguilla's BLUE Week initiative scheduled for end of April 2024 and this provides an ideal opportunity to engage them in by-catch reduction training without having to ask them to give up even more of their time.

Trained expertise remains in Anguilla.

This project has so far trained 16 Anguillian residents, including ANT and FMRU-DNR staff, interns and volunteers. In addition to being trained, these individuals are also actively applying their knowledge and skills and are now in a position to train others should it be required. Through this project, we therefore have not only built individual capacity, but institutional capacity.

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

The primary purpose of this project is to design and implement effective shark conservation action through a multi-disciplinary, practical, evidence-based approach. This project directly supports Anguilla's ability to achieve strategic long-term outcomes for marine species and habitats, delivering commitments made by the Government of Anguilla under national strategies, policies, and legislation as well as by contributing to a number of different multilateral environmental agreements and agendas.

So far through this work (see Section 3.1 and 3.2 for additional details), we have been able to increase our knowledge about Anguilla's marine biodiversity and particularly the diversity, distribution, and socio-economic value of elasmobranchs. This project has therefore already contributed to:

- The National Biodiversity Strategy and Action Plan, which calls for the gathering of data on “activities that have significant adverse impact on the conservation and sustainable use of biodiversity.”
- The National Environmental Management Strategy, which calls for the “meaningful participation of civil society in decision making” and promoting environmental awareness and understanding.
- The Biodiversity and Heritage Conservation Act and Anguilla Fisheries Development Plan, by collecting critical data to inform the development and implementation of evidence-based actions for both threatened and exploited shark species.
- The UN Sustainable Development Goals (Goal 17), by strengthening partnerships through collaborative initiatives amongst national stakeholders (FMRU-DNaR, ANT), international

non-governmental agencies (MCS, Caribbean Shark Coalition), and academia (UoE, Imperial College of London).

- The Aichi Targets, by raising awareness of the value of biodiversity (Target 1), taking into account traditional/local knowledge (Target 18), and using science and technology to better understand, develop, and implement conservation interventions (Target 19).
- The Food and Agriculture Organisation’s International Plan of Action for the Conservation and Management of Sharks, by conducting assessments of shark stocks, identifying and assessing threats to shark populations, and involving stakeholders in research and education initiatives.

We expect that this project will make further contributions to national and international priorities as pursue and implement our research action plan and lay the groundwork for the development of species conservation action plans.

5. Gender Equality and Social Inclusion (GESI)

Please quantify the proportion of women on the Project Board ¹ .	33%
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women ² .	67%

GESI Scale	Description	Put X where you think your project is on the scale
Not yet sensitive	The GESI context may have been considered but the project isn’t quite meeting the requirements of a ‘sensitive’ approach	
Sensitive	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
Empowering	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	
Transformative	The project has all the characteristics of an ‘empowering’ approach whilst also addressing unequal power relationships and seeking institutional and societal change	

Day to day management of the project is handled by mixed gender team comprised of MCS Project Leader Mr Peter Richardson (now Amdeep Sanghera) , ANT Project Leader Ms Farah

¹ A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

² Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

Mukhida, Project Coordinator Dr Louise Soanes, FMRU-DNaR Steering Committee Members Mr Najee Gumbs and Mr Vincent Webster, and UoE Project Partner Dr Matt Witt. Additional members of the project implementation team include Ms Emily Bunce (MCS), Mr Devon Carter (ANT), Ms Kafi Gumbs (FMRU-DNaR), Ms Clarissa Lloyd (ANT), Ms Sue Ranger (MCS), Mr Amdeep Sanghera (MCS), Ms Nicola Saville (MCS) and Ms Sophia Pinheiro Vergara (MCS).

To date, the project team has directly engaged with 104 individuals (30% female, 74% male) through surveys, interviews, and training. For the CVM surveys we tried to achieve a gender balance in those interviewed, even though fishers were particularly targeted for interviews, and this is a sector that is predominantly represented by males, but we nonetheless managed to include 13 females and 20 males in our CVM survey data collection. Regarding the CVM screening workshops, we deliberately scheduled them at times and at locations to be flexible enough to attract a diverse audience. Meeting structures, language and facilitation-styles, as well as group composition appropriate for gender-representative and social inclusive participation (e.g. break-out groups) were also devised. This included carrying out workshops at three key community centres across Anguilla, including Island harbour which has a significant fisher population. Promotion of workshops was carried out digitally through online media promotion and distributing flyers through WhatsApp groups. A set of 'House Rules' were also shared at the beginning of the workshop in order to support a sense of respect for all participants while promoting active listening, constructive criticism and solution-focused thinking.

Overall, we believe females are well-represented in this project, as decision makers as well as beneficiaries of the training and learning opportunities. Ethnicity and age are equally well-represented based on Anguilla's population demographics. We will continue work towards equal representation (in gender in particular) through our stakeholder shark research action planning workshop and in the implementation of conservation actions. Also to note in terms of training of local partner staff and gender representation (see logframe Indicator 4.7 and Table 1), 80% of female ANT staff and 33% of female FMRU-DNR have benefited from project-related training opportunities.

6. Monitoring and evaluation

The monitoring and evaluation plan is being implemented as described in our proposal. MCS has overall management responsibility over the M&E process, with input provided directly by lead partner agency ANT and more specifically Ms Farah Mukhida (Project Co-Lead) and Dr Louise Soanes (Project Coordinator). Continuous M&E has been undertaken on an at least monthly basis through regular email and WhatsApp correspondence and more formally on a quarterly basis through zoom-based project partner steering committee meetings. These steering committee meetings are minuted and shared with all attending (Evidence 4.5). Both MCS and ANT share responsibility for keeping records of activities, outputs and the indicators in the project logframe.

The MCS Director of Programmes reviews quarterly financial reports with the ANT Project Co-Lead, with reports delivered to and discussed with the MCS Director of Finance. ANT have included project indicators into their quarterly and annual financial and performance reports to the Government of Anguilla.

7. Lessons learnt

This project is a collaborative initiative amongst Anguilla and UK-based partners. Despite the physical distance and shared responsibilities of project implementation, with local partners and UoE taking the lead on ecological aspects and MCS leading on socio-economic, this project has been very much about communication, sharing, and learning from one another. It has also been about maximizing time spent together – ensuring that local partners are able to gain as much knowledge as possible and develop their skill sets so that this project can transition into a more long-term conservation programme, with results and actions feeding into and complementing other important work programmes, including fisheries management and marine parks management.

Over the course of the last three years of the project, we have gained a better appreciation of how real change takes time, especially behavioural and high-level structural change. While local partners have been operating on-the-ground for decades and have a very good sense of the natural and social environment in which they work, through this project we've realised that sometimes actions need to be slowed down for the long-term gain, especially if there is the benefit of having extra time to deliver outputs that will have impact and legacy.

Managing Anguilla's shark populations had never really been a point of major discussion within and amongst stakeholders and the local community prior to this project. There would sometimes be a shark-related post on social media or a video that would be circulated on the WhatsApp platform but it was never any sustained conversation or discussion. Through this project, the profile of sharks and rays has increased: the largest Anguilla-based Facebook page that focuses on the underwater environment, Anguilla Under the Blue, often posts images and information about the sharks and rays that they observe with comments ranging from wonder to nervous apprehension. Footage of sharks being caught by fishers have elicited similar responses, but with a far more vocal support for conserving sharks or at least understanding that they are a critical component of the underwater ecosystem. It is these types of conversations that we support, and we want to be able to positively contribute to and guide them by providing context and information both on the ecological and social aspects of conservation and sustainable use. Our work through this project allows us to be in that position.

At the same time, while we recognise that there are legal mechanisms in place to pursue full protection of Anguilla's Endangered species, other conservation and management actions may be more appropriate until additional ecological and social data are collected. Furthermore, taking advantage of other work that is approved and in progress (for example, the strengthening of marine parks legislation and the initial expansion of the marine park network to include dive wrecks as being implemented through DPLUS137) can provide potentially just as effective solutions without inciting otherwise unnecessary backlash. Through this project, we have learned that process has been just as important as the end results.

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

1. Given the changing political context, could the team provide some analysis of the impact of change on the project beyond the current changes to activity timings? Are any additional mitigating measures or activities required?

We have identified two main changes to the project: 1. A move away from the development of a species action plan (SAP) to a research action plan; and 2. Not pursuing listing of endangered shark and ray species on Schedule 1 of the Biodiversity Heritage and Conservation Act.

As outlined in previous sections, we believe that the species action plan needs additional data that will require more time than this three-year project allows, in order to be most effective and justifiable. We also recognise that based on data that we have so far collected, that while there is certainly a shark fishery within Anguilla's waters, the level appears to be so far manageable. That is, instead of pursuing an outright ban on the harvesting of endangered shark species, other fishery management measures may be more appropriate and require further investigation, potentially leading to improved compliance and conservation impact. The research action plan would inform future management measures and allow for on-going monitoring to determine whether additional action may be required. We still, however, plan on submitting the list of at-risk species to the Minister of Environment, along with the results of this project to help inform next steps. In addition, it is clear from our stakeholder engagement during the project that there is still a long way to go in better communicating the reasons for and justification of fisheries management measures. MCS in collaboration with the Department of Natural Resources are pursuing further projects to address this with the aim of getting local fishers more on board and supportive of any future fisheries management actions.

2. It is clear that the team have reflected on gender issues through the project and highlighted this within the report. It would be great if gender disaggregated data could be provided in all relevant indicator reporting, for example in Indicator 4.7.

We have disaggregated data by gender in Indicator 4.7 of the logframe (Annex 1) and within the Project Indicator Standards (Table 1).

3. The report highlights challenges raised during the Community Voice Method (CVM) data collection process whereby local community member were critical of the process by which the turtle harvest ban was brought in and hope that the same process will not be used to ban shark fishing. How does the project aim to adapt its approach to support community buy in and respond to the concerns raised by local people in the consultation phase of this project?

As part of the CVM process, we have presented the results of our interviews and discussions with the full range of stakeholders regarding perceptions, values, and desires as it relates to Anguilla's marine habitats and more specifically the shark and ray species that are found in these waters. All project partners have agreed that management decisions, especially as it relates to fisheries, should be data-driven and evidence-based and that a precautionary approach should be adopted if warranted. In the case of sharks and rays, we know for certain that species that species identified as being at risk of extinction are found within Anguilla's waters. We also, however, know – at least based on preliminary findings – that the fishery (at least at the moment) is relatively small scale and primarily opportunistic with only a few fishers directly targeting sharks. Most sharks appear to be caught as by-catch.

Through our discussions with stakeholders at the CVM documentary presentations, we asked stakeholders about their thoughts on appropriate management actions. Suggested interventions included seasonal fisheries and quotas and these suggestions merit further investigation. Our in-water work also indicate that we still do not have enough data to make evidence-based management decisions and that additional research is required, including to inform and justify potential management interventions.

With regards to Anguilla's sea turtles, the situation was different. Sea turtle numbers were exceedingly low, fishing pressure was high, and populations needed time to recover. Following a 25-year moratorium and intensive research, the recommendation from natural resources managers was that the moratorium should be transitioned into a ban as the population still had not recovered and regional populations were showing similar declines. Local fisheries managers and conservation agencies want to take similarly measured approach: decisions should be based on data not on feelings. If data suggests that shark and ray populations are at risk of extinction then difficult decision will need to be made for long-term benefit of species but also the livelihoods of generations to come. To support this approach, we know that more work needs to be done locally to better educate and inform fishers of the need to manage fisheries as a shared resource, while continually incorporating their values as part of an on-going participatory approach. MCS are currently working with the Department of Natural Resources to improve relationships between the GoA and fishers.

We also recognise that sharks and rays are using Anguilla's marine parks. Through a DPLUS-funded project that focuses on enhancing management of these sites (DPLUS137), Anguilla's marine parks are set to become no-take/replenishment areas; these sites (including wrecks which will also be designated marine parks) will become refuges for sharks and rays. Protecting species, may therefore require a combination of measures that enable both their protection and sustainable harvest.

4. The logframe templates includes a wrong output 1 statement – please clarify as any changes to outputs should be agreed through Change Request.

Change Requests were submitted for consideration and approval. The correct logframe, with approved outcomes, outputs and indicators are now included.

5. Please ensure you clearly report against indicator progress in Annex 1 “Report of progress and achievements against logframe”.

We have aimed to properly report against indicators in this Annual Report.

6. Consider how your logframe indicators map against Darwin Plus standard indicators, making clear reference to the Standard Indicator reference codes.

We have reviewed the Standard Indicator Guidelines and selected indicators that best reflect the project. These indicators have been updated and are included in Table 1.

7. The report confirms the project team have updated the literature review to incorporate suggested papers and additional recent publications (comments from Annual Report 1), but no evidence is provided of this update.

This was an oversight on our part. The updated literature review is included in our collection of evidence (Evidence 4.4).

8. Factsheets shared have the wrong DPLUS number referenced (DPLUS158 instead of 136) – please clarify? We have checked and updated all of the fact sheets and referenced the numbers correctly.

9. Risk Management

No new risks have arisen.

10. Sustainability and legacy

The initial aim of this project was to achieve a change in legislation to protect shark and ray species in the long-term. Through our work, which has focused on the ecological, social, economic and political aspects of species conservation, we have realised that a change in legislation may not actually be necessary to effectively conserve and protect shark and ray species at this time. Rather, existing tools (including no-take/replenishment zone marine parks), fisheries management interventions, and building a community of supporters and advocates for species conservation may be even more effective. We have also realised that while there are some stakeholders that may be firm in their positions and will not waver, there are far more that are responsive to evidence, information and well-framed explanations. Our research action plan, which integrates the questions raised by stakeholders and contextualises shark and ray conservation within climate change as well as community needs and desires provides us with the platform to more effectively collect, analyse and apply data and to engage in thoughtful, respectful, nuanced and evidence-based discussions and conversations.

This project has increased local capacity to implement and pursue the research action plan while also developing and strengthening regional and international networks and relationships which will also help move the plan forward. The Marine Conservation Society and the University of Exeter have a strong track record for securing additional resources for priority work in the Caribbean UKOTs, and are still committed to generating resource to support project partners in Anguilla if the need exists. For example, after the reformed turtle legislation was enacted in the Turks and Caicos Islands (TCI), both UK partners worked with the local partnership to ensure research, outreach and enforcement evaluation studies continued through additional funding. As we enter into the last months of the project, we are keen to explore next steps together.

11. Darwin Plus identity

We have included the Darwin logo in all of our public awareness and outreach activities and outputs, including advertisements, posters, information briefs, and videos/CVM documentary. The Biodiversity Challenge Funds and Darwin Plus are also recognised and tagged in or social media posts.

12. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	No – It was updated in December 2022 and is now currently being revised
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Have any concerns been reported in the past 12 months	No
Does your project have a Safeguarding focal point?	Yes - Amdeep [REDACTED] Project Leader
Has the focal point attended any formal training in the last 12 months?	Yes – Through the Marine Conservation Society (<i>Online iHasco Training Modules</i>)
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: % [and number] 1 person - ANT Planned: % [and number] – 6 people - ANT
<p>Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses.</p> <p>As part of our public CVM screening workshops, we found presenting a set of ‘House Rules’ right at the beginning of the workshop supported constructive and respectful dialogue throughout the workshops.</p> <p>Specifically, we requested all workshop participants to:</p> <ul style="list-style-type: none"> - Introduce themselves before speaking. - Be present and reduce distractions – please don’t look at phones. - Use welcoming and understandable language where possible – always explain any technical terminology. - Be respectful of different viewpoints and experiences. Show courtesy towards all others present - be critical of ideas, not people. - Actively listen to what others say before asking questions and gracefully accept constructive criticism. - Help us keep to time - if there is not time to respond to your question in the meeting, we will make time after the event to answer it. 	
<p>Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.</p> <p>The ANT plans on training all staff in safeguarding protocols in July 2024.</p>	
<p>Please describe any community sensitisation that has taken place over the past 12 months; include topics covered and number of participants.</p> <p>Nothing to report.</p>	

Have there been any concerns around Health, Safety and Security of your project over the past year? If yes, please outline how this was resolved.

There have not been any concerns.

13. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2023 – 31 March 2024)

Project spend (indicative) in this financial year	2023/24 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				30 SSD hard drives required for the infrared BRUVs as they are data heavy and needed back-up storage. Existing SSDs have already been used up and we are using new SSDs to store data from recent field trips. Not in original budget.
Others (Please specify)				Adobe software less than budgeted, bank and wire transfer fees less than expected.
TOTAL	£122,227.00	£122,022.77		

As we were planning on deploying the IR BRUV system and given the immense amount of data that is collected through these systems, the ANT purchased additional solid-state drives in anticipation. Data from the IR BRUV system would be stored on these drives, in multiple copies for both the ANT and FMRU, along with additional data collected from the mid-water BRUVS. The ANT had initially assigned the purchase as an Operating Expense. After review by our MCS financial team, we realised that the cost should have been recorded as a capital expenditure due to the overall cost. A Change Request Application submitted in June 2024 also included a Financial Change Request, with a request to move £3,834.37 from the Operating Cost budget line to the Capital Cost budget line. We did not anticipate any additional capital expenditure in Year 3 of the project and therefore no budget was allocated to this line. Within previous years of the project, we had purchased SSDs, but in smaller quantities, below the indicated threshold, and were therefore reported as a project operating cost, as permitted. ANT once again reported this new expenditure as they had previously without realising the threshold limit. We became aware of the overspend as we were compiling our annual report in collaboration with the ANT. We are very grateful to Darwin Plus approving this virement of funds.

Table 2: Project mobilised or matched funding during the reporting period (1 April 2023 – 31 March 2024)

	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 (£)			

Annex 1: Report of progress and achievements against logframe for Financial Year 2023-2024

Project summary	Progress and Achievements April 2023 - March 2024	Actions required/planned for next period
<p>Impact</p> <p>Enhanced health and resilience of Anguilla's marine ecosystems established through science, stakeholder engagement and action – exemplary conservation highlighted as a model for marine management by other islands in the region.</p>	<p>We have continued to collect both ecological and social data that has significantly increased our understanding of the diversity, abundance and distribution of sharks in Anguilla's waters – this is an essential step in the process of conservation action planning and policy recommendations.</p>	
<p>Outcome National and regional recovery of Anguilla's apex predators (sharks) through comprehensive conservation policies and actions, strong management competencies and more supportive civil society.</p>		
<p>Outcome indicator 0.1 Shark and ray research action plan created and a implementation schedule devised by project partners following consultation with the local community and wider scientific networks</p>	<p>Research Action Plan developed and finalised, approved by local implementing agencies (see Section 3.1, Evidence 4.2)</p>	<p>Identify priority actions that can be implemented in the short-term; identify potential funding opportunities for priority research activities that cannot be supported by existing operational budgets</p>
<p>Outcome indicator 0.2 Workplans and budgets of responsible national agency and supporting partners demonstrate intention to continue implementing action plans beyond the life of this project</p>	<p>Annual project partner workplans currently reflect the implementation schedule for this project. Preliminary discussions are in place with UoE, ANT and FMRU regarding next steps in implementing the ecological aspects of the research action plan, while MCS is currently working with FMRU to enhance FMRU-fisher relationships, with this work likely continuing post-project. Additional details and evidence about progress made towards this indicator will be available in the project's final report</p>	<p>Identify priority actions for post-project and consider how best to integrate initiatives into work plans, budgets and strategic plans</p>
<p>0.3 Vulnerable and endangered shark species are protected in Anguilla's waters by law</p>	<p>In progress, using existing mechanisms to protect Endangered species within marine parks (marine parks will become no-take zones and the marine park network will be expanded to include wrecks), supported by amended legislation. List of vulnerable and endangered species to be submitted to the Ministry of Environment, to formally enable the development of species conservation action plans under the Biodiversity and Heritage Conservation Act</p>	<p>Submit list of IUCN red-listed Vulnerable and Endangered shark and ray species recorded in Anguilla's waters to the Ministry of Environment</p>

Output 1. Development of first ecological and social science baselines regarding sharks in Anguilla		
Output indicator 1.1 1 Baseline Local Ecological Knowledge (LEK) surveys and threat assessment of Anguilla’s shark populations collected from at least 50 fishers and community members, ensuring gender balance, by end of Q3Y1.	Completed in Year 1	No further action required.
Output indicator 1.2 1.2 Baseline scientific data regarding shark species presence, movements, and behaviour gathered from (i) >280 video datasets from deployment of BRUVs at 16 nearshore locations, and 8 locations around 3 offshore cays; (ii) video datasets from 8 deployments of IR-enabled underwater cameras; (iii) fish catch landing data collected from the 3 main fishing villages (Sandy Ground, Island Harbour and Cove); and (iv) citizen science sighting/photograph data submitted by all 3 of Anguilla’s dive operators throughout Y1 and Y2.	169 video datasets collected from benthic and mid-water BRUVS in Year 3, bringing total overall video datasets for the project to 273 11 citizen science reports of shark and ray sighting submitted in Year 3, bringing total number of shared observations to 22 over the project period. (see section 3.1, Evidence 4.6)	Additional BRUV deployment scheduled for April and November 2024 (including IR-enabled BRUVS) Continue to collate shark and ray sightings into database to support long-term monitoring
Output indicator 1.3 Stakeholder attitudes towards and perceptions about sharks and their conservation identified through the application of a gender-balanced CVM process (at least 30 filmed interviews, film/documentary output, at least three CVM follow-up workshops involving at least 60 participants) in Q4Y1 & Q1Y2	31 CVM interviews to support the development of the CVM documentary held in Year 2 Three CVM follow-up workshops held in June 2023, attended by a total of 54 individuals (see Section 3.1, Evidence 4.1)	No further action required.
Output 2. Evidence-based shark research action plan produced through a participatory process		
Output indicator 2.1. Research Action Plan for Anguilla’s sharks (informed by Output 1 – LEK surveys, ecological data, and CVM results) developed through a participatory research action planning workshop attended by at least 15 participants, and shared with all stakeholders in Q1Y3	Research Action Plan developed, with input received from 54 stakeholders, followed by project partner workshop to fine-tune the plan (see Section 3.1, Evidence 4.2)	No further action required.
Output indicator 2.2 The research objectives detailed in the research action plan are approved by the Ministry of Natural Resources	Research objectives approved by local project partners (FMRU-DNR, ANT), with partners currently identifying which priority actions should be pursued post-project	Share Research Action Plan with Ministry of Environment and indicate immediate priorities for further action
Output 3. At least two priority interventions prescribed by the shark Species Action Plan are implemented and monitored.		

Output indicator 3.1 At least 50% of Anguilla's inshore, offshore and sports fishers (approx. 75 people) are aware of shark by-catch reduction methods and humane release methods, achieved through at least 1 locally held workshop attended by 30 people in addition to public outreach by the end of the project.	Scheduled for Year 4	Hold stakeholder workshop related to tools available to reduce bycatch during fishing
Output indicator 3.2 A shark sanctuary marine protected area proposal developed, that identifies at least two potential MPA sites for consideration which are important for foraging and/or breeding sharks identified within territorial/cross-territorial waters by the end of the project.	Scheduled for Year 4, following final deployment of BRUVS in November 2024, but recognising that the identification of potential MPA sites may not mean the designation of the sites within the timeframe of this project	Identify potential MPA sites based on shark and ray distribution
Output 4. Enhanced national capacity to plan, manage, implement and monitor shark conservation action, supported by improved technical skills and greater public awareness and cooperation.		
Output indicator 4.1 Project steering committee established with partners, Anguilla Fisherfolk Association and other key stakeholders in Q2Y1, and to meet every quarter thereafter.	Quarterly Project Steering Committee meetings held amongst project partners (see Section 6, Evidence 4.5)	Continue to hold PSC meetings through remainder of project period
Output indicator 4.2 Communications and public awareness plan finalised by Q4Y1, factoring in findings from LEK surveys and CVM.	Completed in Year 1	Continue to implement communications and public awareness plan
Output indicator 4.3 Creation of digital posts for project-partner social media accounts in Q2Y1, producing at least 1 post per month for duration of project.	7 digital posts on Facebook, 7 digital posts on Instagram, 1 digital post on LinkedIn (see Section 3.1, Evidence 4.3)	Continue to highlight project progress, results and general information using social and traditional media
Output indicator 4.4 Knowledge-Attitudes-Performance (KAP) surveys carried out with at least 50 community members (ensuring gender balance) at start and end of project, to evaluate change in opinions towards sharks and their conservation.	Completed in Year 1	No further action required
Output indicator 4.5 Project communications demonstrate at least 70% of Anguilla nationals (c.8,500 people) are sensitised to the project and the need for shark conservation intervention (by end of project).	Project has reached at least 4785 individuals, but potentially up to 16,631 individuals (through Facebook alone) (see Section 3.1, Evidence 4.3)	Continue to use media as well as in-person meetings, workshops, and interactions to promote the project and shark conservation and management
Output indicator 4.6 At least 20 local stakeholders assist with continuation of citizen science programme to support SAP monitoring efforts by the end of the project	Four individuals contributed six sightings to the shark and ray citizen science programme in Year 3, with a total of eight individuals and 20 sightings throughout the project period.	Continue to encourage the reporting of shark and ray sightings and continue to collate

	(see Section 3.1, Evidence 4.6)	in shark and ray sighting database
Output indicator 4.7 At least 15 stakeholders gain technical skills, experience and assist with advanced data collection via two separate workshops (BRUVs deployment, CVM) by the end of the project.	Over the project period, 18 project staff and volunteers trained in BRUV deployment (14 male, 4 female), 8 project staff trained BRUV analysis (5 male, 3 female), 7 project staff trained in CVM protocols (3 male, 4 female) and 2 local staff trained in shark satellite tag deployment (2 male); total number of individuals trained: 19 (14 male, 5 female) (see Section 3.1, Evidence 4.2)	Training of project staff and volunteers in IR-enabled BRUVS deployment, training of staff, volunteers and fishers in shark reduction bycatch methodologies and tools/instruments

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Enhanced health and resilience of Anguilla's marine ecosystems established through science, stakeholder engagement and action – exemplary conservation highlighted as a model for marine management by other islands in the region. (Max 30 words)			
Outcome: <i>Anguilla's apex predators have a greater chance of recovery through the implementation of comprehensive action plans, strong management competencies and a more supportive civil society</i> (Max 30 words)	0. Shark and ray research action plan created and a implementation schedule devised by project partners following consultation with the local community and wider scientific networks 0.2 Workplans and budgets of responsible national agency and supporting partners demonstrate intention to continue implementing action plans beyond the life of this project 0.3 Vulnerable and endangered shark species are protected in Anguilla's waters by law	0.1 Shark and ray research action plan produced and shared with project stakeholders and the Ministry of Natural Resources 0.2 Institutional work plans and budgets 0.3 Government of Anguilla Executive Council minutes; legislative amendment document	National and regional stakeholders continue to be willing to cooperate on proposed shark conservation initiatives. The work is not significantly impacted by further covid-19 restrictions.
Outputs:	1.1 Baseline Local Ecological Knowledge (LEK) surveys and threat		

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>1. Development of first ecological and social science baselines regarding sharks in Anguilla</p>	<p>assessment of Anguilla's shark populations collected from at least 50 fishers and community members, ensuring gender balance, by end of Q3Y1.</p> <p>1.2 Baseline scientific data regarding shark species presence, movements, and behaviour gathered from (i) >280 video datasets from deployment of BRUVs at 16 nearshore locations, and 8 locations around 3 offshore cays; (ii) video datasets from 8 deployments of IR-enabled underwater cameras; (iii) fish catch landing data collected from the 3 main fishing villages (Sandy Ground, Island Harbour and Cove); and (iv) citizen science sighting/photograph data submitted by all 3 of Anguilla's dive operators throughout Y1 and Y2.</p> <p>1.3 Stakeholder attitudes towards and perceptions about sharks and their conservation identified through the application of a gender-balanced CVM process (at least 30 filmed interviews, film/documentary output, at least three CVM follow-up workshops involving at least 60 participants) in Q1Y2 & Q1Y3</p> <p>1.4 At least one manuscript submitted for publication, and at least one presentation at an international conference by the end of the project.</p>	<p>1.1 Notes and reports of stakeholder interviews; signed informed consent forms; threat analysis.</p> <p>1.2 Video records from BRUVs; fish catch data report; species database; including shark identification photographs (from BRUVs and divers); habitat and species maps.</p> <p>1.3 Stakeholder interview notes; stakeholder video footage; qualitative database; analysis document; CVM film; CVM stakeholder screening sign-in sheets; CVM screening notes; CVM follow-up workshop presentations; CVM stakeholder workshop minutes.</p> <p>1.4 Finalised manuscript; PowerPoint presentation; social media posts; conference proceedings.</p>	<p>Major field activities can be rescheduled if extreme weather events affect Anguilla during the project period.</p> <p>National stakeholders, including fishers and community members, are willing to participate with project activities including the LEK surveys and CVM.</p> <p>BRUV equipment perform as stated and do not suffer from equipment failure / loss.</p> <p>Fishers allow their shark landings to be sampled.</p> <p>The ecological and social science fieldwork is not significantly delayed by further Covid-19 restrictions.</p> <p>Concerning Covid, stakeholders are comfortable in participating in CVM process facilitated by local/international fieldwork team and it is permissible to arrange Covid-secure screenings / workshops to facilitate CVM stakeholder engagement.</p> <p>Data will be collected, properly managed and robustly analysed for peer reviewed publication.</p>
<p>2</p>	<p>2.1 Research Action Plan for Anguilla's sharks (informed by Output 1 – LEK</p>	<p>2.1 Workshop agenda and sign-in sheets; PowerPoint presentations;</p>	<p>National and regional stakeholders continue to be willing to cooperate on</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Evidence-based shark research action plan produced through a participatory process	surveys, ecological data, and CVM results) developed through a participatory research action planning workshop attended by at least 15 participants, and shared with all stakeholders in Q1Y3. 2.2 The research objectives detailed in the research action plan are approved by the Ministry of Natural Resources	shark Species Research Action Plan, (informed by LEK and scientific data). 2.2	habitat and species conservation initiatives, specifically participating in the participatory research action planning workshop. Government continues to support collection of scientific data to inform the effective management of Anguilla's threatened and endangered shark species.
3. At least two priority interventions prescribed by the shark Species Action Plan are implemented and monitored.	3.1 At least 50% of Anguilla's inshore, offshore and sports fishers (approx. 75 people) are aware of shark by-catch reduction methods and humane release methods, achieved through at least 1 locally held workshop attended by 30 people in addition to public outreach by the end of the project 3.2 A shark sanctuary marine protected area proposal developed, that identifies at least two potential MPA sites for consideration which are important for foraging and/or breeding sharks identified within territorial/cross-territorial waters by the end of the project.	3.1 Licensed fisher databases (via FMRU-DNR), workshop attendance lists, workshop evaluation forms and report, outreach material. 3.2 Spatial data layers; shark distribution maps; shark sanctuary marine protected area proposal.	Inshore, offshore and sports fishers are willing to attend shark by-catch reduction workshops. Sites for consideration as shark sanctuary marine protected areas are identified through robust biological evidence and fair stakeholder deliberation via CVM process.
4. Enhanced national capacity to plan, manage, implement and monitor shark conservation action, supported by improved technical skills and greater public awareness and cooperation.	4.1 Project steering committee established with partners, Anguilla Fisherfolk Association and other key stakeholders in Q2Y1, and to meet every quarter thereafter.	4.1 Written confirmation from steering committee members; Terms of Reference; minutes of first committee meeting. 4.2 Partner-endorsed communications and public awareness plan.	Key stakeholders are willing to join and participate in Project steering committee People are willing to engage in KAP surveys at the start and end of the project.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>4.2 Communications and public awareness plan finalised by Q4Y1, factoring in findings from LEK surveys and CVM.</p> <p>4.3 Creation of digital posts for project-partner social media accounts in Q2Y1, producing at least 1 post per month for duration of project.</p> <p>4.4 Knowledge-Attitudes-Performance (KAP) surveys carried out with at least 50 community members (ensuring gender balance) at start and end of project, to evaluate change in opinions towards sharks and their conservation.</p> <p>4.5 Project communications demonstrate at least 70% of Anguilla nationals (c.8,500 people) are sensitised to the project and the need for shark conservation intervention (by end of project).</p> <p>4.6 At least 20 local stakeholders assist with continuation of citizen science programme to support SAP monitoring efforts by the end of the project</p> <p>4.7 At least 15 stakeholders gain technical skills, experience and assist with advanced data collection via two separate workshops (BRUVs deployment, CVM) by the end of the project.</p> <p>4.8 Project methods and lessons learned disseminated to relevant natural</p>	<p>4.3 Online record of posts on partner organisations' channels, as well as public response.</p> <p>4.4 KAP report</p> <p>4.5 Newspaper articles; CVM documentary; social media posts; radio press releases; PowerPoint presentations; sharks exhibit at Anguilla Endangered Species Festival; posters and presentations for schools; social media analytics.</p> <p>4.6 Names and details of participating residents; photos; shark monitoring and tracking datasheets and database (including names of volunteers).</p> <p>4.7 Training workshop agendas; workshop attendance sheets; workshop materials; CVM best practice guide; shark monitoring and tracking datasheets and database; workshop evaluation forms.</p> <p>4.8 Case studies; presentation abstracts; PowerPoint presentations; peer-reviewed paper.</p>	<p>Trained expertise remains in Anguilla.</p> <p>Increased national capacity/knowledge and active engagement leads to improved species conservation.</p> <p>The work including training workshops and KAP surveys are able to be carried out in a Covid-secure manner, respecting national measures.</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	resource managers within Anguilla, Caribbean UKOTs and other sub-regional islands by the end of the project.		
Activities (each activity is numbered according to the Output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)			
1. Development of first ecological and social science baselines regarding sharks in Anguilla			
<p>1.1 Implement at least 3 stakeholder engagement meetings in key fishing centres of Anguilla (Sandy Ground, Island Harbour and Cove), introducing project need, aims and participatory engagement to key stakeholders</p> <p>1.1.1 Identify and approach key stakeholders for activity 1.3</p> <p>1.2 Develop baseline LEK survey</p> <p>1.2.1 Pilot baseline LEK survey with community members to ensure locally appropriate.</p> <p>1.3 Complete baseline LEK surveys with at least 50 Anguillian fishers/community members to record knowledge and understanding of shark ecology (including species presence/absence, species-specific spatial/temporal distributions, key habitats, and fish catch).</p> <p>1.4 Complete detailed analysis of LEK surveys, including historical, current, and future threats against sharks.</p> <p>1.5 FMRU–DNR staff members trained in fish catch landing protocol to monitor landed sharks through bespoke workshop and in-situ.</p> <p>1.5.1 Commence fish catch landing data collection at 3 main fishing villages (Sandy Ground, Island Harbour and Cove).</p> <p>1.6 Finalise methodology for shark citizen-science programme, and initiate with Anguillian dive operators.</p> <p>1.7 Complete literature review of shark-related scientific studies from within the Caribbean Basin and particularly within the Caribbean sub-region.</p> <p>1.8 Develop and formalise BRUVs protocol for baseline data collection.</p> <p>1.9 Collect baseline scientific data of shark species through the deployment of BRUVs at at least 24 sites within Anguilla’s waters over two years.</p> <p>1.10 Analyse BRUVs footage to determine shark presence and diversity.</p> <p>1.11 Use BRUVs data to inform the placement of IR-enabled long-term video cameras (8 deployments).</p> <p>1.12 Analyse the IR-enabled camera data to determine shark presence, diversity and use shark measurements to understand population composition (percentage of adults and juveniles in the population).</p> <p>1.13 Develop interview questionnaire and interviewee list for CVM filmed interviews (aided by Activity 1.3).</p> <p>1.14 Carry out at least 30 CVM filmed interviews ensuring gender balance.</p> <p>1.15 Transcribe and analyse filmed interview data, write analysis summary report, and produce CVM film output.</p> <p>1.16 Hold at least three CVM film screenings and stakeholder workshops to present and discuss biological and social science findings from Output 1 and, using a participatory process, identify conservation action priorities for Anguilla’s sharks.</p> <p>1.17 Finalise draft shark SAP in preparation for consultation at participatory action planning workshop (Activity 2.2) (aided by Activities 1.4, 1.10, 1.12, 1.15, 1.16).</p> <p>1.18 Write draft manuscript for submission and peer-review.</p> <p>1.19 Present project results at one international conference.</p>			
2. Evidence-based shark SAP and supporting legislative amendment recommendations are produced through a participatory process			
<p>2.1 Complete literature review of national policies, legislation, and regulations for sharks.</p> <p>2.2 Plan and implement participatory action planning workshop to develop Anguilla Shark SAP.</p> <p>2.3 Write up, peer-review, and publish evidence-based Anguilla Shark SAP.</p>			

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>2.4 Draft policy brief on status of Anguilla's sharks, requesting inclusion of relevant species on Schedule 1 of the Biodiversity and Heritage Conservation Act (Threatened and Endangered Species of Anguilla).</p> <p>3. At least two priority interventions prescribed by the action plan are implemented and monitored</p> <p>3.1 Hold a workshop to train local fishers on shark-bycatch reduction methods (e.g. appropriate types of fishing gear, humane release)</p> <p>3.2 Identify areas that are important for foraging and/or breeding sharks within Anguilla's territorial and/or cross-territorial waters to help inform marine spatial planning and the designation of marine protected areas (using results of Output 1).</p> <p>3.3 Draft proposal outlining potential sites for shark sanctuary marine protected area.</p> <p>4. Enhanced national capacity to plan, manage, implement and monitor shark conservation action, supported by improved technical skills and greater public awareness and cooperation</p> <p>4.1 Implement first project steering committee meeting.</p> <p>4.1.1 Partners sign-off Terms of Reference.</p> <p>4.2. ANT staff and other participating national partners complete self-assessment competencies questionnaire to identify training needs (repeated at project end to measure impact on capacity).</p> <p>4.3 Develop and finalise draft communications and public awareness plan for project, guided by the findings of LEK and CVM.</p> <p>4.3.1 Create and disseminate communication, outreach and advocacy outputs including newspaper articles, press releases, blogs, docuseries, and social media posts throughout project life-cycle.</p> <p>4.4 Implement Knowledge-Attitudes-Performance (KAP) surveys with at least 50 community members in parallel with Activity 1.3 (ensuring gender balance and repeated at project end to evaluate project impact).</p> <p>4.5 Plan and undertake training and on-the-job mentoring of ANT staff and other nationals in applied conservation management.</p> <p>4.5.1 Design and implement two separate workshops focusing on CVM and BRUVs (monitoring and data analysis, acoustic monitoring, data/statistical analysis, Advanced Open Water Diving).</p> <p>4.6 Implement training with stakeholders to support continuation of citizen science programme to support SAP monitoring efforts (see Activity 1.6).</p> <p>4.7 Publicise and report on project progress, results, and lessons learned through national and international media and directly to national groups, cross-territory stakeholders, international scientific community, and the Government of Anguilla Executive Council.</p> <p>Other project management activities:</p> <p>X.1 Establish Project Steering Committee and meet every quarter (remote members to participate by Zoom).</p> <p>X.2 Project inception meeting</p> <p>X.3 Project biannual reports/donor technical and financial reports</p> <p>X.4 Monthly financial accounts</p> <p>X.5 End of project audit</p>			

Annex 3: Standard Indicators

Table 1 Project Standard Indicators

DPLUS Indicator number	Name of indicator	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DPLUS-A01	Number of people from key national and local stakeholders completing structured and relevant training	People	Men / Women	8 / 3 (BRUVS deployment) 5 / 3 (BRUV analysis)	4 / 1 (BRUV S deployment) 3 / 4 (CVM methodology)	5 / 1 (mid-water BRUVS deployment)	14 / 5	15
DPLUS-A03	Number of local or national organisations with enhanced capability and capacity	People	Number of organisations	2	2	2	2	2
DPLUS-B02	Number of new or improved species (research) plans available and endorsed	Number	Type			1 Research Action Plan	1	1
DPLUS-C06	Analytics for funded project-specific social media (Facebook) posts	Number	Reach	232		4785 (min, but up to 16631)	5017 min (but up to 16863)	7000

Table 2 Publications

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

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

All annexes of evidence have been included in the shared folder package as part of this report submission

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 correct template (checking fund, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	✓
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	✓
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 15)?	✓
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.	