

Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2020

Darwin Plus Project Information

Project reference	DPLUS085
Project title	Post-disaster Restoration of Mangroves (PROM)
Territory(ies)	The British Virgin Islands (BVI)
Lead organisation	International Union for Conservation of Nature (IUCN)
Partner institutions	Ministry of Natural Resources and Labour (BVI)
Grant value	£318,308
Start/end dates of project	2 nd April 2019 - 31 st March 2022
Reporting period (e.g. Apr 2019-Mar 2020) and number (e.g. Annual Report 1, 2)	April 2019 - March 2020
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Project website/blog/social media	
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1. Project summary

In 2017, the British Virgin Islands were hit by Hurricanes Irma and Maria (both category 5) within weeks of each other. Outside of the initial impacts of the disaster and damage to human well-being and infrastructure, the ensuing ecosystem degradation continues to impact the islands. With substantial impacts on ecosystem services including damages to key coastal ecosystems (i.e. corals, mangroves, beaches and seagrass beds) and other environmental infrastructure assets, losses were estimated at GBP 3.1 million. Preliminary estimates indicated that over 90% of red mangroves were lost. The sheer amount of degradation created a compounding problem for natural regeneration, as the mangroves seed banks were largely wiped out.

Mangrove ecosystems play a vital role in the Caribbean by providing incredible ecosystem services such as prevention of coastal erosion, coastal protection from wave energy and storm surges, carbon storage, water filtration, and key nursery habitat for many local and commercial fisheries. The decimation of mangrove ecosystems in the British Virgin Islands (BVI) also significantly impacted tourism, by not only affecting the natural beauty of coastal ecosystems and beaches but also leading to decreased water quality and impacting fisheries. Mangroves not only directly benefit the communities who live near them, but also local and national economies. They are invaluable for resilience to natural disasters and adaptation to climate change, providing a coastal buffer to rising sea levels. Recognising the critical role of mangrove ecosystems in BVI, the Ministry of Natural Resources and Labour requested assistance with the recovery and restoration of mangrove ecosystems in the BVI.

The climate crisis is not only leading to increased incidence of natural disasters but also exacerbating their impacts, and low-lying islands like the BVI are particularly vulnerable to these effects. However, the restoration and sustainable management of natural ecosystems (also

known as ecosystem-based adaptation) can increase resilience to climate change at both local community and national scales. In order to achieve this, a socioecological approach is required to restore natural ecosystems while taking human needs and societal priorities into account. This socioecological approach must be underpinned by robust scientific knowledge, much of which is available in the BVI but needs to be synthesized and compiled into a *usable* framework for restoration and management.

The project works to synthesize disconnected studies and information into a territory-wide mangrove risk assessment using the IUCN Red List of Ecosystems (RLE) methodology. Simultaneously, the project will be conducting on-ground mangrove restoration at selected pilot sites in the Territory with local stakeholders. Finally, the project team will work with the BVI government to draft an evidence-based territory-wide mangrove restoration and management plan at scale, based on the results of the RLE assessment, which will guide priority management actions on the island in the 2020 Environment Bill and beyond the project, with mangrove restoration and management as an ecosystem-based approach to both disaster risk reduction and climate adaptation.

2. Project stakeholders/partners

The concept for the project was developed after the BVI Ministry of Natural Resources and Labour (MNRL) requested assistance with the recovery and restoration of mangrove ecosystems from IUCN. They MNRL was involved in the proposal stage and provided a support letter, enclosed with the application in 2019. Since the inception of the project, the MNRL remains a critical project partner. In the reporting period, the head of the team Joseph Smith-Abbott, Deputy Secretary, together with Marcia Potter, Permanent Secretary, MNRL, and Mervin Hastings, Deputy Director of Conservation & Fisheries, set up a team of government representatives with strong expertise and skills to contribute to the smooth running of this project.

Due to internal adjustments and staff changes, the inception of the project was delayed. However, we capitalised on the situation to conduct a stakeholder mapping in order to leverage the expertise and experience of key local organizations, external partners and governmental bodies. This exercise allowed laying of the foundation for developing and fostering networking so as to promote active scientific practice and cooperation, proactively responding to the needs of local stakeholders.

This exercise has been key to linking this project with previous and ongoing efforts thus feeding off each other to deliver better synergistic value for the BVI islands. By doing so, we aim to ensure that the respective mangrove-related measures are complementary and coherent, avoiding overlap and duplication, therefore making more effective use of the available resources and making sure the sum of the whole is greater than its parts.

The scoping mission, in January 2020, was an inflexion point that contributed to accelerate project implementation. Dr. Gregg Moore, Caribbean mangrove restoration expert based at Shoals Marine Laboratory, who conducted the original post-hurricane impact assessment and has independently advised the BVI government on mangrove management post-disaster, joined the IUCN team as a consultant for this project.

As part of this effort, bilateral meetings with BVI government counterparts were organised to discuss project details, other mangrove works in the Territory, and project timelines. Similarly, IUCN held discussions with key local partners and stakeholders, to ensure a collaborative environment and knowledge sharing across initiatives. These included:

The National Parks Trust of the Virgin Islands has supported a satellite-mapping project of pre- and post- Irma landscapes in the Territory supporting the Darwin funded project "[Mapping for evidence based policy, recovery and environmental resilience](#)" with Environment Systems Limited. The Trust also has a history of mangrove restoration pre-Irma, as well as extensive political knowledge and influence;

The Jost Van Dyke Preservation Society has extensive local knowledge on mangrove restoration pre-Irma, has the only functional mangrove nursery in the Territory, and funded the original post-hurricane mangrove assessment with Dr. Gregg Moore in the immediate aftermath of the storms;

The University of Roehampton has been an implementing partner in both the projects "[Improving small island resilience and self-sufficiency in habitat monitoring and management](#)" and "[Establishing Flood-Resilience SMART Communities through Non-Governmental Organisation Partnerships](#)" with the Caribbean Development Bank in collaboration with the Department of Disaster Management. The CDB project targets the communities of Sea Cow's Bay, East End, and Jost Van Dyke, and includes vulnerability and opportunity mapping focused on flood risks;

The H. Lavity Stoutt Community College received funding from Unite BVI in January 2020 for the creation of a mangrove nursery at the college. The University is keen to work with the PROM project to supply seedlings, as well as facilitating graduate students to support IUCN restoration work and produce student research projects.

At the inception meeting, plans were discussed with partners and the MNRL to create an exchange programme between Shoals Marine Laboratory and the H. Lavity Stoutt Community College, in which graduate level students could work on mangrove restoration initiatives including supporting planting, monitoring & evaluation as part of the restoration component of this project, as well as the broader ecosystem risk assessment.

Dr Gregg Moore (Shoals Marine Laboratory) was contracted to work with the IUCN team as a Caribbean mangrove restoration expert. He has conducted [the initial post-disaster mangrove assessment](#) (publication in press) jointly with the Jost Van Dyke Preservation Society. Dr. Moore has also been advising the BVI government on immediate post-disaster management on good mangrove management and restoration practices e.g. to not remove standing dead mangroves in the aftermath as even the dead physical structure can buffer wave and storm energy and reduce erosion on coastlines as well as trapping and protect mangrove seedlings that will contribute to regenerating the forest naturally. Dr. Moore will advise on the identification of key restoration sites, make recommendations to the government, and lead training workings with local stakeholders on restoration techniques and planting.

3. Project progress

The PROM project has advanced significantly since commencement in 2019 thanks to the well-established relationship with the BVI government focused on meeting their demand for on-ground mangrove restoration and sustainable management for future climate resilience, in the aftermath of Hurricanes Irma and Maria. This section is divided into four main components to report on the progress and major achievements for the year:

A. Networking and Partnerships

This project operationalises IUCN convening and coordinating capacities for building multi-stakeholder dialogues in order to catalyse disaster risk reduction and climate adaptation decision-making and collaborative action in a holistic manner. Working in conjunction with the Global Island Partnership (GLISPA), the project recognizes the policy and institutional role of island states in both disaster risk reduction and global climate change adaptation agendas.

During 2019, the relationship between BVI representatives and IUCN has been strengthened and the project framework has been adjusted throughout the year responding to their priorities. In project planning with the BVI Ministry of Natural Resources and Labour beginning in August 2019, emphasis was placed on the need to sustain past & ongoing successes and to enhance national environmental efforts by relying on this project. The project framework has thus been refocused on a synthesis and convening role for all mangrove initiatives in the Territory, on-ground restoration of priority sites, and to adopt an approach to Territory-wide assessment and

management of coastal resources that can be replicated and upscaled throughout the Caribbean with the BVI as a political champion of ecosystem-based adaptation and disaster risk reduction.

Along with the MNRL, parallel discussions in the planning process were held with local stakeholders including Dr. Gregg Moore and the Jost Van Dyke Preservation Society to understand the extent and diversity of current work in the Territory. Of note was the fact that despite political and implementation capacity and political will in mangrove restoration in a post-disaster context, on-ground restoration has yet been piloted. This is therefore the key priority for the PROM project.

Subsequently, IUCN conducted an inception mission late January 2020 (Annex 3) and held further discussions compiling and synthesizing data of many ongoing mangrove and post-hurricane initiatives. This was key to identifying the different sources of data and information to conduct a baseline post-disaster ecosystem risk assessment by using the IUCN Red List of Ecosystems protocol.

In the context of the scoping mission, IUCN participated in the BVI Department of Disaster Management symposium *“Mangroves for Flood and Climate Adaptive Management: Building Community Resilience”* as part of the CDB/DDM project *“Establishing Flood-Resilience SMART Communities through Non-Governmental Organisation Partnerships”*. Mr. Tyrone Buckmire, Executive Director of the Grenada Fund for Conservation, presented on a history of best practices and examples of successful mangrove restoration from various projects throughout the Caribbean region, and what should be adapted in the BVI. Close linkages were identified with the Flood-Resilient SMART Communities project, which closed in March 2020. The Department of Disaster Management encouraged key lessons and priorities to be carried forward and upscaled to a territory-wide application through the PROM project.

Currently, due to the global COVID-19 pandemic, there is new risk that the project may lose momentum as on-ground efforts are stalled. To this end, the Project is preparing a supplementary two-hour webinar to give a synthesis retrospective on other projects on the island and how the outcomes and lessons learned will be scaled up in a Territory-wide approach through the PROM Project. Katie Medcalf (Environment Systems UK), Louise Soanes (University of Roehampton) and Dr. Moore will participate in this online session to link project priorities.

The project is well placed in IUCN’s global mangrove portfolio, and has been included in communications for both the Global Mangrove Alliance and the UN SDG14 Community of Ocean Action for Mangroves. The model of using a comprehensive RLE to inform long-term restoration, protection, and management priorities for coastal ecosystems is well established, and when successful, ready to scale up through existing networks.

B. Interdisciplinary risk assessment and capacity building

BVI shares with other territories the increasing exposure to the risks and impacts of climate change. To demonstrate how improved ecosystem management can reduce disaster risks, enhance resilience, and promote adaptation, IUCN, together with BVI experts and stakeholders, is undertaking an ecosystem risk assessment that synthesizes information from disparate projects across the Territory. In the short term, this assessment identifies threats and drivers of degradation; in the long term, the assessment offers a framework to monitor and evaluate the recovery of ecosystems and the progress of management/restoration measures.

For this purpose, the IUCN team is working in close collaboration with local experts and organisations, which makes access to the necessary data and information much easier. Rozine Norris, GIS Expert for the BVI Government, together with Milena Berrocal, IUCN Expert, are leading the data gathering process, which is the critical start-up phase for conducting the territory-wide mangrove risk assessment.

The maps and data made available by partners fed into the spatial desk-based vulnerability assessment (Annex 4). This exercise mapped, with SENTINEL 2 Satellite Observations, the state and loss of the mangrove ecosystems pre- and post-hurricane Irma and Maria in 2017, thus establishing a baseline of mangrove distribution pre- and post-hurricane, and to evaluate

progress of natural generation during 2017-2020. This informs the identification of priority sites for pilot restoration interventions.

IUCN representatives presented an introductory session on the IUCN Red List of Ecosystems (RLE) protocol at the BVI Department of Disaster Management symposium "[Mangroves for Flood and Climate Adaptive Management: Building Community Resilience](#)". In a separate session all the key partners and stakeholders, who would be engaged in the project, discussed how to make the best use of their capabilities and set up an expert working group.

The full RLE training workshop was scheduled for March 2020 with the leadership of the RLE expert Irene Zager (IUCN Commission on Ecosystem Management and Provita). However, due to the COVID-19 pandemic, the workshop has been postponed until further notice. In lieu of this, the IUCN team is organising a series of online training modules on the IUCN Red List of Ecosystems for May 2020 to be followed by face-to-face meetings when the situation allows.

C. Prioritisation of areas of interventions

Initial progress has also been made towards prioritisation of degraded mangrove sites. During the scoping mission, the Project team visited some key mangrove sites with Mervin Hastings, Deputy Director of Conservation & Fisheries. It was noted that while some mangrove sites have extensive natural recovery occurring, and others have nearly none. In some sites with limited recovery, hurricane debris including derelict vessels and metal sheets stuck in the mangroves seemed to be hindering natural regeneration. The visits made it clear that certain sites are more appropriate for restoration.

Following discussion with key partners and stakeholders, it became clear that while infrastructure for nurseries was underway through other projects, experience with outplanting the seedlings through the PROM project was key to the success of mangrove restoration efforts. The island of Jost Van Dyke was identified as a key prospective mangrove restoration site for ecological reasons as well as a strong way to link the Flood-SMART Communities and PROM projects to demonstrate synergies to the Ministry of Natural Resources and Labour. Building on the vulnerability mapping conducted in this reporting period, Dr. Moore will assist in on-ground verification of the identification of the restoration sites as per his expertise.

D. Policy mainstreaming and planning

In depth discussions surround the mangrove management plan were held with BVI representatives, the National Parks Trust, and Dr. Moore. The role of the IUCN Red List of Ecosystems in informing a scientifically robust Territory-wide mangrove management plan to build climate resilience was widely recognised. Currently, no national legislation protects mangroves in the BVI; the 2020 Environment Bill was identified as one key vehicle to implement priority mangrove management in the territory, with the identification of key priority protection sites through the RLE. The government suggested this would be more robust than modifications to the Wetland Management Plan, which is often enacted only when development is beginning and thus too late to identify key protection sites.

The Honourable Vincent O. Wheatley, Minister for Natural Resources, Labour and Immigration, and Dr. the Honourable Natalio D. Wheatley, Minister for Education, Culture, Youth Affairs, Fisheries and Agriculture, met with the Project team. It was discussed to create an exchange program between Shoals Marine Laboratory and the H. Laverty Stoutt Community College, in which graduate level students could work on mangrove restoration initiatives including supporting planting, monitoring & evaluation as part of the IUCN restoration project, as well as the broader mangrove ecosystem risk assessment and its global applications.

3.1 Progress in carrying out project Activities

Output 1: RLE experts training workshop and capacity building provided for national government, local and regional stakeholders and relevant assessors

1.1 Online briefing on RLE to enable pre-workshop data gathering

Ongoing. The online briefing for the RLE workshop session occurred both during the IUCN scoping mission as well as in further discussion with BVI government in preparation for the workshop originally planned for the end of March 2020 but now moved to an online platform in May 2020.

1.2 Data gathering for preliminary RLE assessment

Ongoing. Data gathering with local partners was initiated in the inception meetings and follow up communications, and will be finalised in early 2020 for the RLE assessment.

1.3 Expert Training workshop held on executing RLE assessments for local government, and relevant assessors

Delayed. The RLE workshop was due to be held in March 2020. However, as a consequence of the COVID-19 pandemic this has not been possible. IUCN has made preparations for an online RLE workshop to be held in May 2020.

1.4 Analysis and validation of data generated in activities 2.2 and 2.3;

Not yet started under this reporting cycle.

1.5 RLE Validation workshop to validate and finalise mangrove ecosystem assessment

Not yet started under this reporting cycle.

1.6 Webinar on the Red List of Ecosystems – case studies & applications

Not yet started under this reporting cycle.

Output 2: Territory-wide Red List of Ecosystems assessment for BVI mangroves

2.1 Relevant data gathered

Ongoing. The relevant data gathering process has commenced, as previously stated for the desk-based GIS component looking at mangroves pre and post hurricanes in 2017.

2.2 Criteria A and B assessed, according to data availability and quality

Ongoing. The assessments of criteria A and B will be conducted following the completion of the mapping assessment of the mangrove habitats on BVI. This process is currently being developed.

2.3 Criteria C, D and E assessed, according to data availability and quality

Ongoing. Criteria C, D and E will be covered as part of the RLE assessment online workshop held with BVI government and local stakeholders and partners.

2.4 Conceptual diagram for mangrove ecosystems developed;

Not yet started under this reporting cycle.

2.5 National RLE assessment for mangrove ecosystems.

Not yet started under this reporting cycle.

Output 3: Prioritisation of degraded mangrove areas for restoration and other ecosystem-based approaches to benefit livelihoods and climate resilience:

3.1 Detailed and robust map of mangrove cover and restoration opportunities in BVI is produced, including pre-and post- Irma imagery;

Ongoing. Preliminary maps can be found in Annex 4.

3.2 Capacity building in mangrove restoration methodologies for local stakeholders is conducted;

Not yet started under this reporting cycle.

3.3 Restoration is executed with local organisations and communities at a number of priority mangrove sites based on the opportunity map as well as field data & local knowledge;

Not yet started under this reporting cycle.

3.4 Monitoring & evaluation of success conducted throughout for adaptive management and to produce scientifically robust results.

Not yet started under this reporting cycle.

3.5 Webinar on Nature-based Solutions for disaster risk reduction and climate adaptation – mainstreaming and implementation.

Not yet started under this reporting cycle.

Output 4: Cross sectoral policy mainstreaming and capacity building:

4.1 Drafting of a territory-wide mangrove management plan in consultation with BVI government;

Not yet started under this reporting cycle.

4.2 Closing workshop building capacity on integrating and mainstreaming project outputs;

Not yet started under this reporting cycle.

4.3 Report on outcomes of project;

Not yet started under this reporting cycle.

4.4 PROM results are shared/communicated in international platforms including the UN Community of Ocean Action for Mangroves, the Global Mangrove Alliance (GMA), the Partnership for Ecosystem-based Disaster Risk Reduction (PEDRR), and Friends of Ecosystem-based Adaptation (FEBA);

Not yet started under this reporting cycle.

4.5 Promotion of results and report via IUCN network.

Not yet started under this reporting cycle.

3.2 Progress towards project Outputs

Output 1 - RLE experts training and capacity building provided for national government, local and regional stakeholders and relevant assessors

Delayed. The workshop planned for March 2020 in this reporting cycle had to be postponed due to the COVID-19 pandemic. Plans are now underway with the BVI government representatives for a virtual format session instead. The workshop, which will be attended by the MNRL as well as local experts and stakeholders, will ensure the synthesis of data gathered through other projects and initiatives, and identify the gaps in order to complete the full RLE assessment to inform the creation of a robust management plan.

Output 2 - Territory-wide Red List of Ecosystems assessment for BVI mangroves

Delayed. The data required for the RLE process, started with assessments pre- and post-hurricane, has been gathered by different projects and initiatives. This data will provide the baseline for the synthesis of a Territory-wide assessment of drivers of risk and degradation and Output 3 below.

Output 3 – Prioritisation of degraded mangrove areas for restoration and other ecosystem-based approaches to benefit livelihoods and climate resilience

Ongoing. The priority mangrove restoration sites have preliminarily been scoped by the IUCN team and local stakeholders and partners. In addition, synergies have been built with other projects and initiatives that have established or are establishing mangrove nurseries which will be used for planting. With further input from local partners, the priority restoration sites will be finalised and on-ground restoration will begin in 2020. Dr. Moore will conduct restoration trainings alongside local stakeholders to build capacity and interest to ensure the success of restoration efforts.

Output 4 - Cross sectoral policy mainstreaming and capacity building

Ongoing. The role of the IUCN Red List of Ecosystems in informing a scientifically robust Territory-wide mangrove management plan to build climate resilience is now widely recognised. The 2020 Environment Bill has been identified as a key vehicle to implement mangrove management in the territory, with the identification of priority protection sites through the completed RLE. The MNRL is primed to mainstream improved coastal resource management, ecosystem-based adaptation, and disaster risk reduction into policies once evidence has been synthesized and generated through the project. In the inception workshops, they also expressed enthusiasm for the upscaling of the approach throughout the Caribbean, with BVI as the champion.

The project is well placed in IUCN's global mangrove and ecosystem-based adaptation portfolio, through the Global Island Partnership, the Global Mangrove Alliance and the UN SDG14 Community of Ocean Action for Mangroves. The model of using a comprehensive RLE to inform long-term restoration, protection, and management priorities for coastal ecosystems is in process, and its implementation will be scaled up through established networks. In addition, the groundwork is being laid for synergies with the Caribbean EbA Facility.

3.3 Progress towards the project Outcome

Outcome: Community-based mangrove restoration, sustainable protection, and management for enhancing climate and disaster resilience of communities exposed to the effects of climate change

In the aftermath of hurricanes Irma and Maria many standalone projects and initiatives were launched in the BVI to focus on pre- and post- hurricane assessments with emphasis on ecosystem restoration, flooding, and disaster risk reduction. The PROM project was designed to fill a niche in the overarching outcome of *mangrove restoration for enhanced climate and disaster resilience*. However, in inception meetings and discussions with partners and the BVI government, parts of the Project framework were further adapted to focus on capitalising on IUCN's convening power to bring local stakeholders working on coastal natural resources management, disaster risk reduction, and climate adaptation all to the same table, to synergize between projects and synthesize these multiple efforts into a Territory-wide approach to enhancing climate resilience of the BVI.

In this reporting period, major strides were made towards laying the groundwork for this outcome. Partners were engaged, situation analyses completed, and collaborative workplanning conducted all to demonstrate the value addition of bringing together disparate initiatives for the cohesive and strategic restoration of mangrove ecosystems in BVI. A key finding during this planning stage was that the other mangrove initiatives in BVI were not yet actually restoring mangrove ecosystems. This was due to a number of identified issues including lack of mangrove seed banks, lack of funding, and lack of capacity for where, how, and when to plant. Recognising this key gap, and responding to the requests from the BVI government, the identification of key restoration sites as well as capacity building on planting was identified as the key deliverable of this Project to contribute to the Outcome. Working with key Caribbean mangrove experts, in the following reporting period, priority restoration pilot sites will be identified and restoration kick-started to deliver on these ends.

The Red List of Ecosystems assessment will provide for the scientifically robust monitoring and evaluation of mangrove ecosystems in the Territory, through both identification of drivers of degradation and risk, as well as a robust monitoring & evaluation system to track mangrove regeneration on the island. This will overcome identified barriers on the synthesis and upscaling of disparate initiatives, and thus allow for the upscaling of improved coastal resources management into policy to contribute to the project Outcome.

3.4 Monitoring of assumptions

Key risks and assumptions identified in the logical framework, as well as how they are managed, are as follows:

Assumption 1: Local and national stakeholders are interested and willing to share data and incorporate recommendations for coastal planning and management.

Throughout the reporting period, government representatives have been willing to share data and information with the project team in order to conduct both the vulnerability mapping and ecosystem risk assessment. However, this process has taken longer than expected, as due to the outbreak of COVID-19 BVI experts cannot access the hard drive devices that store key data and information.

Assumption 2: Stakeholders are interested in and supportive of initiatives.

The groundwork for this project during the reporting period including liaising with local stakeholders and government representatives to demonstrate the value addition of the PROM project compared to other initiatives in post-hurricane BVI. At the end of the reporting period, local stakeholders and government representatives are supporting this project and collaboratively working with the project team to implement planned activities. It is worth highlighting that the approach proposed – transition from theory (synthesizing the post-hurricane assessments ongoing on the island) to practice (on-ground mangrove restoration through the PROM project) – was very well received, with strong encouragement for the project to help local stakeholders begin restoration activities. An update on this assumption will be reflected in the next bi-annual project report once on-ground activities have moved forward.

Assumption 3: Continuous support cooperation with government agencies, community leaders and IUCN.

The kick-off of the project was delayed due to internal staff changes at IUCN. However, cooperation has been reinforced, particularly in the context of closer relations with MNRL and local stakeholders.

Assumption 4: Sufficient funding is ensured to implement the full scope of intended activities.

Responding to the demand as described in Section 3.3, the planned on-ground implementation of mangrove restoration activities will be supported with additional funds as a result of budget reallocation for year 1. By doing so, the project team will respond to the BVI government and local stakeholder demand to place more emphasis on on-ground efforts. The project will also work to consider a long-term sustainability and upscaling plan in consultation with the MNRL, such as linking to the [BVI Environmental and Tourism Levy](#).

Assumption 5: Fieldwork is not adversely affected by weather (i.e. cyclones) or political conditions.

While the project team identified weather and political conditions as major risks that could have interfered with the field operations, we could not have anticipated the real culprit: the outbreak of the COVID-19 global pandemic that began during this reporting period. The project team has worked to reduce the negative impacts of the current circumstances and implement alternative (virtual) options as appropriate, e.g., trainings and capacity building. Depending on future travel restrictions, virtual restoration trainings may also be conducted with stakeholders so restoration activities are not further delayed. An update on this assumption will be reflected in the next bi-annual project report once on-ground activities have moved forward.

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

The 14 Overseas Countries and Territories (OCTs) of the United Kingdom, have a considerable amount of biodiversity under their remit; together with the UK, they are responsible for the fifth largest area of ocean in the world. Similarly to OCTs of other European Union members, environmental work in these territories falls under unique policy and funding barriers and opportunities. Barriers are further exacerbated by insufficient information available for multispecies and ecosystem indicators, despite the numerous examples of long-term biological studies. The project is currently collecting environmental and ecological data and information to

be integrated into the ecosystem risk assessment to be carried out in the 2nd quarter (year 2) with the primary aim of informing long-term conservation actions.

A key success identified in the report "[The Overseas Territories: Security, Success, and Sustainability](#)" was the extension of the CBD to Territories. Initially only a limited number, including the BVI, were included in the UK's ratification of the CBD in 1994, something that has since been extended to the rest of the OCTs. Other policy tools include the Overseas Territories Biodiversity Strategy (UKOTBS), which aims to "*to enable the UK and Overseas Territory Governments to meet their international obligations for the conservation and sustainable use of biodiversity in the Overseas Territories*". This strategy is supplemented by policies and agreements such as the Commonwealth Marine Economics programme, the Joint Ministerial Council, the DEFRA Overseas Territories Biodiversity Group, CITES, and the Hamilton Declaration on Collaboration for the Conservation of the Sargasso Sea amongst others.

During this first year reporting period, the project team set the basis for successful political mainstreaming of the project activities through building a dialogue with the BVI Government and putting in place the required processes to ensure the effectiveness of project implementation. Highlighted in the UKOTBS is the need to support both reporting and the integration of OTs into further policy platforms and programmes. While there have already been several discussions on how policy and governance mechanisms will enhance restoration/management measures and promote compliance measures, the policy component of this project emerges on the scene in year 2.

At this stage, and according to the project outcome, the project will contribute towards the following main goals:

- Addressing the awareness gaps between biodiversity, economic and human wellbeing for integration of environmental considerations into decision making, policy frameworks and regulation¹, building on previous experiences²;
- Reducing the risks of harm from environmental hazards by 1) identifying major threats, 2) assessing the risk of collapse of mangrove ecosystems and 3) enhancing long-term resilience and adaptive capacity through a tailored mangrove management plan;
- Using resources from nature more sustainably and efficiently by providing a roadmap towards sustainable management of the BVI mangrove ecosystem and enhanced livelihoods of local communities;
- Enhancing beauty, heritage and engagement with the natural environment by deploying ecosystem-based approaches to climate adaptation (EbA) and disaster risk reduction (Eco-DRR) thus benefiting nature and human wellbeing;
- Mitigating and adapting to climate change by strengthening the capacity of stakeholder and institutions to mainstream ecosystem-based approaches into their plans (i.e. NAPs) and strategies (i.e. NBSAPs).

In view of the forthcoming Conference of Parties for both the Convention on Biological Diversity (CBD COP15) and the United Nations Framework Convention on Climate Change (UNFCCC COP26), the IUCN team will support, as requested, the BVI Government in framing fact-based and convincing advocacy messages to:

- highlight the importance of continuous and sustainable management of threats and stressors driving biodiversity loss;
- underpin its position as an island territory considering its implications on the loss and damage track.

5. OPTIONAL: Consideration of gender equality issues

Equal representation of stakeholders at different levels as well as gender balance will be important criteria when carrying out capacity building / training sessions and restoration interventions. For gender related aspects, the project uses as reference the BVI National Gender Policy to support and promote the rights and equality of all its citizens regardless of gender.

¹ For more information: <https://www.gov.uk/government/publications/the-overseas-territories-security-success-and-sustainability>;

² Resilience through Investing in Ecosystems - knowledge, innovation and transformation of risk management (RELIEF Kit), IUCN project. For more Information: <https://www.iucn.org/theme/ecosystem-management/our-work/environment-and-disasters/relief-kit-project-phase-i>

Key gender indicators include:

- Number of participants (50% women) trained to assess ecosystem risk using the IUCN RLE protocols to execute community-based mangrove restoration. Completed by July 2021
- Number of participants (50% women) trained in locally appropriate mangrove restoration methodologies. Completed by December 2021.

6. Monitoring and evaluation

This project will follow the standardised guidance on monitoring and evaluation for EbA following the Friends of Ecosystem-based Adaptation (FEBA) *Guidebook for Monitoring and Evaluating Ecosystem-based Adaptation Interventions*, available [here](#). The Guidebook is a practical guide for planners and practitioners for monitoring the outcomes and impacts of EbA, and to better understand the outcomes and impacts of on-the-ground projects working with and enhancing nature to reduce the negative impacts of climate change on people. Additionally, the proposed exchange program between Shoals Marine Laboratory and the H. Lavity Stoutt Community College, led by Dr. Moore, would allow graduate level students to work on the mangrove restoration initiative including supporting on-ground monitoring & evaluation of pilot sites.

The IUCN Red List of Ecosystems provides a transparent and scientific robust framework for assessing and monitoring the conservation status of ecosystems and identifies the level of risk of collapse of ecosystems, thus, informing better ecosystem management solutions and supporting identification of areas that need urgent action. Combining the IUCN Red List of Ecosystems with ecosystem-based approaches helps in understanding the complexity of human-environmental systems and responding to societal challenges. It is hence important to understand the limits and thresholds of ecosystems to design and implement tailored interventions.

7. Lessons learnt

The PROM project was delayed in starting due to a number of unforeseeable staffing changes at IUCN, including the Red List of Ecosystems Programme Officer. As the project changed hands internally, so did established political relationships with the BVI MNRL. During the delayed start, the BVI government allocated national funds to the “*Establishing Flood-Resilience SMART Communities through Non-Governmental Organisation Partnerships*” with the Caribbean Development Bank in collaboration with the Department of Disaster Management, which also had pre- and post- disaster mangrove assessment components in three identified sites (Sea Cow’s Bay, East End, and Jost Van Dyke). When IUCN and MNRL reconnected after the delayed start, the MNRL thus requested that the PROM project activities shift funding away from assessment and refocus on piloting and capacity building for local stakeholders for on-ground restoration initiatives, as well as joint planning for improved mangrove management in the long-term. It was key that project staff remained adaptive and responsive to local priorities, and worked to bring together the many local stakeholders working on disparate ecosystem assessment & disaster response initiatives. It was noted that the meetings held during the PROM inception trip were the first time “everyone was at the same table” to ensure the sum of the projects in the Territory added up to more than their isolated parts.

Enhancing the project with the knowledge and expertise of local stakeholders has also added great value to the project. While IUCN has a long institutional history in global and regional mangrove initiatives, it is important for each project to adapt to the local socioecological context. Thus, aligning the Project with local mangrove initiatives, local organisations and stakeholder, the local university, and the established expertise of Dr. Moore in BVI mangrove restoration, is instrumental to its success.

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

N/A

9. Other comments on progress not covered elsewhere

One of the major risks and concerns is the loss of excitement and momentum due to the current travel restrictions due to COVID-19. The pandemic has challenged the accelerated implementation of the fourth quarter; however, the project team has demonstrated an adaptive and resource-oriented approach to seek efficient and rapid solutions while responding to the demands of the BVI Government. As an immediate response, the scheduled in-person workshop training on the IUCN Red List of Ecosystems has been switched into an online session to gather key actors that have undertaken mangrove restoration actions in BVI to stimulate and encourage stakeholders. This change has made it possible to increase the investment in on-ground restoration to learn from local communities while contributing to achieve the project outcome.

This adjustment is catalysing the progress in establishing effective processes to provide timely information on ecosystem risks and vulnerability and to set up a comprehensive and replicable mangrove management plan.

10. Sustainability and legacy

Key aspects of the long-term sustainability of the PROM project include:

- Connecting the dots between mangrove stakeholders and local organisations, and the creation of a Territory-wide risk assessment and mangrove management plan, to ensure a coordinated coastal resources management approach throughout the Territory rather than standalone projects and initiatives. This may include leveraging the BVI Environmental & Tourism Legacy Program, a tourism levy for natural resources management, to scale up mangrove restoration from PROM pilot restoration sites to additional restoration sites identified through the RLE assessment;
- Facilitating links with the proposed exchange program between Shoals Marine Laboratory and the H. Lavity Stoutt Community College to allow graduate level students to engage in mangrove restoration as an ecosystem-based adaptation and disaster risk reduction approach, thus building expertise and leadership on these approaches with local stakeholders;
- Linking of the overall integrated approach for EbA & Eco-DRR to global initiatives IUCN is engaged in, thus building on ongoing efforts to highlight the case study and lessons learned from PROM via the Global Island Partnership, the Global Mangrove Alliance, the UN Community of Ocean Action for Mangroves, and the Caribbean EbA Fund, among others;
- Politically positioning the BVI as a champion of mangrove restoration in a post-disaster context, including through advocacy for upscaling the approach to build climate resilience in the Caribbean through a full Caribbean mangrove assessment.

11. Darwin identity

Despite having promoted the project through different networks - including the Biodiversity and Ecosystems Services in EU Overseas Countries and Territories Funding Facility (BEST)³ coordination team - and external partners to increase the visibility and importance of overseas territories for achieving global targets, the campaign on social networks during the first pilot year has generated excitement but not yet produced results. The only reference was made to the symposium that took place during the scoping mission. Check the [link](#) for more information. However, we anticipate that as on-ground work commences in 2020 a renewed communications

³ BEST, Biodiversity and Ecosystems Services in EU Overseas Countries and Territories, is a funding facility for small-scale and medium-scale field actions in EU Overseas Countries and Territories (OCTs) to promote the conservation of biodiversity and sustainable use of ecosystem services, including ecosystem-based approaches to climate change adaptation and mitigation. More information at: <https://www.iucn.org/theme/protected-areas/our-work/eu-overseas/good-better-best>

push will follow to promote role of Darwin in restoring mangroves in BVI as a combined ecosystem-based approach to climate adaptation (EbA) and disaster risk reduction (Eco-DRR). By highlighting this Project as an example of a robust EbA & Eco-DRR approach applied in an island context and connected with other IUCN global policy initiatives, it is expected to result in increased participation of BVI in high-level events at United Nation Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity and UN Disaster Risk Reduction (UNDRR) fora.

Throughout the year, the project team has synergised with other Darwin supported projects in the BVI. A joint communications effort could be launched further into the project to showcase the leadership of BVI in EbA & Eco-DRR approaches through Darwin support.

12. Safeguarding

IUCN and its partners work with rights-based approaches for nature conservation, respecting indigenous groups and local communities' visions and socio-cultural dynamics, as well as strengthening their voices, and promoting efficient and equitable benefit sharing mechanisms.

IUCN has an [Environmental and Social Management System](#) (ESMS) that provides a systematic procedure to check projects for potential adverse environmental and social impacts to assure that negative impacts are avoided or minimised to the extent possible while positive impacts are stimulated. For this specific project, the project team applies the IUCN ESMS Standard on cultural heritage and biodiversity, as well as IUCN's policy on Gender Equality and Women's Empowerment.

13. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2019 – 31 March 2020)

Project spend (indicative) in this financial year	2019/20 D+ Grant (£)	2019/20 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)				
TOTAL				

We informed Darwin on postponing all capacity development activities due to COVID-19 travel restrictions and on our commitment in elaborating a contingency plan so as not to lose any momentum. The project outcomes and deliverables were revised accordingly, and virtual workshops are planned in Q1 2020. The project team is working closely with Dr. Gregg Moore on either beginning restoration activities as soon as we can travel again, or the possibility of conducting restoration capacity building workshops virtually to start activities through local partners.

The requested changes were approved in April 2020.

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
<p>Impact</p> <p>⇒ Mangroves are restored and managed sustainably at the territorial level increasing the flow of ecosystem services including resilience to climate change and natural disasters.</p>		<p>In this reporting period, the project is in the preparatory process to restoring mangroves in the BVI in a scientifically robust manner. The project team is working with a diverse group of local stakeholders to synthesize different initiatives and assessments into a comprehensive mangrove management plan, as well as to collaborate on the identification of priority restoration sites to apply an inclusive and facilitative process to begin mangrove restoration efforts for long-term climate resilience.</p>	
<p>Outcome</p> <p>Community-based mangrove restoration, sustainable protection, and management for enhancing climate and disaster resilience of communities exposed to the effects of climate change.</p>	<p>0.1 Baseline Territory-wide mapping assessment completed to facilitate a directed approach, identification of key priority areas for restoration and future monitoring. Completed by September 2020.</p> <p>0.2 Number of hectares identified for science-based restoration and protection of threatened mangroves-ecosystems. Completed by September 2020.</p> <p>0.3 Number of supported measures for uptake and application of generated data from ecosystem risk assessment by using the Red List of Ecosystems protocol. Completed by December 2021.</p>	<p>0.1 Milena Berrocal has developed pre and post hurricane maps from 2017 to 2020, see section 3 and Annex 4.</p> <p>0.2 The field work mission to verify the potential sites for mangroves restoration is planned for Q3 / year 2. The key local stakeholders and institutions have been identified.</p> <p>0.3 The Red List of Ecosystems training planned for the last week of March to kick-start with the ecosystem risk assessment was delayed due to COVID-19, as per indicated in section 3. A virtual session is planned for May 2020.</p>	<p>- Exchange crucial SENTINEL 2 and LIDAR images and GIS information to develop a more comprehensive and detailed vulnerability mapping assessment. Milena Berrocal and Rozine Norris are following up on this matter.</p> <p>- Liaise with BVI Government team and set up a suitable timeline as a back-up plan to ensure the implementation of restoration activities with either in-person or remote support from the project team.</p> <p>- Organise and coordinate with the BVI Government and RLE expert a virtual course – with an online repository with the necessary data</p>

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
	<p>0.4 Draft mangrove management plan completed for the Territory. Completed by February 2022.</p> <p>0.5 Increased awareness among local communities including 50% of women on mangrove conservation for climate adaptation and disaster risk reduction. Completed by December 2021.</p>		<p>and resources - as the alternative plan to the in person workshop training.</p>
<p>Output 1. Red List of Ecosystems (RLE) training and capacity building provided for national government, local and Caribbean, stakeholders and relevant assessors.</p>	<p>1.1 Number of participants (50% women) trained to assess ecosystem risk using the IUCN RLE protocols to execute community-based mangrove restoration.</p> <p>1.2 Number of participants (50% women) attending closing workshop on RLE validation results and RLE applications - how to integrate and mainstream project outputs and lessons learnt into policy, up scaling and replicate the approach to other ecosystems. Completed by December 2020.</p> <p>1.3 Number of ecosystems/sites identified as priority areas for protecting and restoring highly threatened mangrove ecosystems to restore or improve livelihoods and increase climate resilience. Completed by September 2020.</p> <p>1.4 Webinar on the Red List of Ecosystems organised and recorded. Completed by July 2020.</p>	<p>The 3-days RLE workshop training scheduled in March 2020 was postponed due to COVID-19.</p> <p>As indicated in the previous section, the GIS experts have started collecting the relevant data for completion of the mapping assessment of the mangrove ecosystems. This exercise will led to the initial analysis of both RLE spatial criteria A and B as well as to identification of priority areas for restoration. Following this exercise, the selection of the priority restoration sites will be validated in a scientifically and socioecologically robust manner by project staff together with the local stakeholders and BVI government.</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Activity 1.1 Online briefing on RLE to enable pre-workshop data gathering		This online session took place in September 2019 between project staff and BVI Government representatives. Refer to section 3A.	
Activity 1.2. Data gathering for preliminary RLE assessment		As indicated in the previous section, the GIS experts have started collecting the relevant data for completion of the mapping assessment of the mangrove ecosystems. This exercise will led to the initial analysis of both RLE spatial criteria A and B as well as to identification of priority areas for restoration.	<ul style="list-style-type: none"> - The BVI Government experts will send the available information to the project team as soon as they have access the Ministry facilities. - An online survey will be shared with the key experts (see annex 3) once the shared information has been analysed. Findings and limitations of the online survey will be the basis to elaborate a set of recommendations. - A follow-up session will be scheduled to inform the key experts and interested partners on the above point.
Activity 1.3. Expert Training workshop held on executing RLE assessments for local government, and relevant assessors		The 3-days RLE workshop training to be facilitated by Irene Zager (RLE expert), with the support of the IUCN team planned for March 2020 was postponed due to COVID-19. Refer to section 3B.	Organise and coordinate with the BVI Government and RLE expert a virtual course – with an online repository with the necessary data and resources - as the alternative plan to the in person workshop training.
Activity 1.4. Analysis and validation of data generated in activities 2.2 and 2.3		Not yet started under this reporting cycle.	IDEM action applies.
Activity 1.5. RLE Validation workshop to validate and finalise mangrove ecosystem assessment		Not yet started under this reporting cycle.	IDEM action applies.

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Activity 1.6. Webinar on the Red List of Ecosystems – case studies & applications		Not yet started under this reporting cycle.	<ul style="list-style-type: none"> - The collaborative project webinar with local stakeholders will be held on the 2nd week of May 2020, which will feature presentations by other local projects as well to continue to position PROM as a convening project bringing together other relevant initiatives, and collaboratively plan towards Territory-wide resilience efforts.
Output 2. Territory-wide Red List of Ecosystems assessment for BVI mangroves.	<ul style="list-style-type: none"> 2.1 National ecosystem risk assessment completed. 2.2 Number of key threats and drivers of change identified. 2.3 Detailed and robust map of mangrove cover in BVI, including pre- and post- Irma, available. 2.4 Conceptual model created for visualizing and informing on the risks and interactions linked to mangroves in the BVI. 	As indicated in the previous section, the GIS experts have begun the completion of the mapping assessment of the mangrove ecosystems. This exercise leads to the initial analysis of both RLE spatial criteria A and B as well as to identification of priority areas for restoration.	
Activity 2.1. Relevant data gathered		GIS experts have started collecting the relevant data for completion of the mapping assessment of the mangrove ecosystems. This exercise will led to the initial analysis of both RLE spatial criteria A and B as well as to identification of priority areas for restoration. Refer to section 3B.	<ul style="list-style-type: none"> - The BVI Government experts will send the available information to the project team as soon as they have access the Ministry facilities. - An online survey will be shared with the key experts (see annex 3) once the shared information has been analysed. Findings and limitations of the online survey will be the basis to elaborate a set of recommendations. - A follow-up session will be scheduled to inform the key experts

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
			and interested partners on the above point.
Activity 2.2. Criteria A and B assessed, according to data availability and quality		Not yet started under this reporting cycle.	<ul style="list-style-type: none"> - Organise and coordinate with the BVI Government and RLE expert a virtual course – with an online repository with the necessary data and resources - as the alternative plan to the in person workshop training. - Develop a joint work plan between the identified assessors and the RLE expert for the timely completion of the RLE assessment.
Activity 2.3. Criteria C, D and E assessed, according to data availability and quality		Not yet started under this reporting cycle.	Same as above.
Activity 2.4. Conceptual diagram for mangrove ecosystems developed		Not yet started under this reporting cycle.	<ul style="list-style-type: none"> - Outline the mangrove conceptual model in consultation with local experts and relevant scientists and stakeholders. - Finalise the conceptual model to be shared during the RLE training (in person / virtual). This way the attendees would be able to analyse and validate it.
Activity 2.5. National RLE assessment for mangrove ecosystems		Not yet started under this reporting cycle.	<ul style="list-style-type: none"> - Develop a joint work plan between the identified assessors and the RLE expert for the timely completion of the RLE assessment. This plan includes the elaboration of a synthesized technical report.
Output 3. Prioritisation of degraded mangrove areas for restoration and other ecosystem-based approaches	3.1 Number of restorable degraded mangroves sites identified.	In this reporting period, the project is in the preparatory process to restoring mangroves in the BVI in a scientifically robust manner. The project team is working with a diverse group of local stakeholders to synthesize different	

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
to benefit livelihoods and climate resilience.	<p>3.2 Number of mangrove hectares under restoration and/or ecosystem-based intervention.</p> <p>3.3 Number of participants (50% women) trained in locally appropriate mangrove restoration methodologies. Completed by December 2021.</p> <p>3.4 Monitoring & evaluation system developed to track restoration progress in the selected sites.</p> <p>3.5 Webinar on Nature-based Solutions for disaster risk reduction and climate adaptation organised and recorded. Completed by September 2020.</p>	<p>initiatives and assessments into a comprehensive mangrove management plan, as well as to collaborate on the identification of priority restoration sites to apply an inclusive and facilitative process to begin mangrove restoration efforts for long-term climate resilience.</p>	
Activity 3.1. Detailed and robust map of mangrove cover and restoration opportunities in BVI is produced, including pre-and post- Irma imagery		Project staff has developed pre and post hurricane maps from 2017 to 2020. Refer to section 3B and annex 4.	Milena will present these maps during the project Webinar to be held on the 2 nd week of May.
Activity 3.2. Capacity building in mangrove restoration methodologies for local stakeholders is conducted		Not yet started under this reporting cycle.	Dr. Moore with the support of the project team will provide training / capacity building to the selected key stakeholders/community members on the best practices on restoration at the selected key restoration priority sites.
Activity 3.3. Restoration is executed with local organisations and communities at a number of priority mangrove sites based on the opportunity map as well as field data & local knowledge		Not yet started under this reporting cycle.	The project team will coordinate with the BVI Government and local stakeholders in order to elaborate a calendar and action plan to

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
			implement the on-ground restoration actions.
Activity 3.4. Monitoring & evaluation of success conducted throughout for adaptive management and to produce scientifically robust results.		Not yet started under this reporting cycle.	Dr. Moore and his students will elaborate a first draft that shows the monitoring & evaluation results from pilot activities on restoration and share them by March 2021.
Activity 3.5. Webinar on Nature-based Solutions for disaster risk reduction and climate adaptation – mainstreaming and implementation		Not yet started under this reporting cycle.	Coordinate with BVI Government and schedule a date prior to starting the on-ground mangrove restoration interventions.
Output 4. Facilitation of cross sectoral policy mainstreaming and project uptake	<p>4.1 Situation analysis of current political frameworks and opportunities for integrating nature-based solutions – particularly ecosystem-based approaches for disaster risk reduction and climate adaptation - and mangrove concepts</p> <p>4.2 Territory-wide mangrove management plan drafted in consultation with key BVI ministries</p> <p>4.3 PROM results are highlighted in international platforms including the UN Community of Ocean Action for Mangroves, the Global Mangrove Alliance, the Partnership for Ecosystem-based Disaster Risk Reduction (PEDRR), and Friends of Ecosystem-based Adaptation (FEBA).</p>	<p>In this reporting period, the groundwork was laid in building partnerships with other projects in BVI to position PROM a convening project “connecting the dots” of isolated initiatives. During the inception meetings in January 2020, a “mangrove coordination and consultative meeting” was hosted by the Ministry to convene all stakeholders to discuss key overarching priorities & outcomes for the Territory, including to highlight key political frameworks & opportunities for integrating EbA & Eco-DRR. Two key policies identified by the government representatives for the incorporation of mangrove protections were the Wetland Management Plan and the 2020 Environmental Bill. As the RLE is finalised, we will continue to work with local stakeholders & government representatives on mainstreaming mangrove management into these two bills, among others.</p> <p>Preliminary information about this project is already being mainstreamed throughout international thematic networks as described in 4.3, including being highlighted in newsletter for the Global Mangrove Alliance and the UN SDG14 Community of Ocean Action for Mangroves.</p>	
Activity 4.1. Drafting of a territory-wide mangrove management plan in consultation with BVI government		Not yet started under this reporting cycle.	The virtual workshop planned in the next period will have a focus on the

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
			application of the application of the mapping and ecosystem risk assessment to the creation of a Territory mangrove management plan.
Activity 4.2. Closing workshop building capacity on integrating and mainstreaming project outputs		Not yet started under this reporting cycle.	N/A
Activity 4.3. Report on outcomes of project		Not yet started under this reporting cycle.	N/A
Activity 4.4. PROM results are shared/communicated in international platforms including the UN Community of Ocean Action for Mangroves, the Global Mangrove Alliance, the Partnership for Ecosystem-based Disaster Risk Reduction, and Friends of Ecosystem-based Adaptation;		Preliminary information about this project is already being mainstreamed throughout international thematic networks, including being highlighted in newsletter for the Global Mangrove Alliance and the UN SDG14 Community of Ocean Action for Mangroves.	Knowledge sharing throughout the project cycle will be mainstreamed throughout key international thematic networks.
Activity 4.5. Promotion of results and report via IUCN network		Close connections between the IUCN Regional Office for Latin America, Mexico, and the Caribbean are established, which will facilitate upscaling of the project approach throughout the Caribbean.	RLE workshop will be hosted for the wider IUCN network in the Caribbean, which will showcase the flagship example of the BVI project as a regional model to follow.

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

N.B. if your application's logframe is presented in a different format in your application, please transpose into the below template. Please feel free to contact Darwin-Projects@ltsi.co.uk if you have any questions regarding this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact:</p> <p>Mangroves are restored and managed sustainably at the territorial level increasing the flow of ecosystem services including resilience to climate change and natural disasters.</p>			
<p>Outcome: Community-based mangrove restoration, sustainable protection, and management for enhancing climate and disaster resilience of communities exposed to the effects of climate change.</p>	<p>0.6 Baseline Territory-wide mapping assessment completed to facilitate a directed approach, identification of key priority areas for restoration and future monitoring. Completed by September 2020.</p> <p>0.7 Number of hectares identified for science-based restoration and protection of threatened mangroves-ecosystems. Completed by September 2020.</p> <p>0.8 Number of supported measures for uptake and application of generated data from ecosystem risk assessment by using the Red List of Ecosystems protocol. Completed by December 2021.</p> <p>0.9 Draft mangrove management plan completed for the Territory. Completed by February 2022.</p> <p>0.10 Increased awareness among local communities including 50% of women on mangrove conservation for climate adaptation and disaster risk reduction. Completed by December 2021.</p>	<p>0.1 Maps and data made available on the Red List of Ecosystems (RLE) website.</p> <p>0.2 Printed and digital reports and executive summaries/factsheets made publically available on the RLE and partner websites.</p> <p>0.3 Participatory community consultation and mapping.</p> <p>0.4 Draft management plan in consultation with Ministries shared with Darwin.</p> <p>0.5 Project reports on progress implementation.</p>	<ul style="list-style-type: none"> - Local and national stakeholders are interested and willing to share data and incorporate recommendations for coastal planning and management. - Community groups are interested and supportive of initiatives. - Continuous support cooperation with government agencies, community leaders and IUCN. - Sufficient funding is ensured to implement the full scope of intended activities.

<p>Outputs:</p> <p>1. Red List of Ecosystems (RLE) training and capacity building provided for national government, local and Caribbean, stakeholders and relevant assessors.</p>	<p>1.1 Number of participants (50% women) trained – 23 to 25 March 2020 - to assess ecosystem risk using the IUCN RLE protocols to execute community-based mangrove restoration.</p> <p>1.2 Number of participants (50% women) attending closing workshop on RLE validation results and RLE applications - how to integrate and mainstream project outputs and lessons learnt into policy, up scaling and replicate the approach to other ecosystems. Completed by December 2020.</p> <p>1.3 Number of ecosystems/sites identified as priority areas for protecting and restoring highly threatened mangrove ecosystems to restore or improve livelihoods and increase climate resilience. Completed by September 2020.</p> <p>1.4 Webinar on the Red List of Ecosystems organised and recorded. Completed by July 2020.</p>	<p>1.1a Training course report.</p> <p>1.1b Training course attendance certificates</p> <p>1.2a List of attendance for the validation workshop.</p> <p>1.2b Validation workshop report.</p> <p>1.3 List of key sites, map outlining their location, and overall recommendations for their restoration and sustainable management.</p> <p>1.4a Promotion material for the webinar: tweets, LinkedIn posts and flyer.</p> <p>1.4b List of certificates automatically delivered after attending the webinar.</p> <p>1.4c List of follow-up questions.</p>	<ul style="list-style-type: none"> - Supportive environment. - Required technology and software can be sourced within budget (exchange rates will not change dramatically). - Citizens and local communities engage and provide verifiable data that can be incorporated into the analyses. - Fieldwork is not adversely affected by weather (i.e. cyclones) or political conditions. - Experts are able to attend the workshops.
<p>2. Territory-wide Red List of Ecosystems assessment for BVI mangroves.</p>	<p>2.1 National ecosystem risk assessment completed.</p> <p>2.2 Number of key threats and drivers of change identified.</p>	<p>2.1 BVI mangrove assessment report published on the RLE website.</p> <p>2.2 List of biotic and abiotic indicators/thresholds.</p>	<ul style="list-style-type: none"> - Citizens and local communities engage and provide verifiable data that can be incorporated into the analyses.

	<p>2.3 Detailed and robust map of mangrove cover in BVI, including pre- and post- Irma, available. .</p> <p>2.4 Conceptual model created for visualizing and informing on the risks and interactions linked to mangroves in the BVI</p>	<p>2.3 Spatial data shared with national stakeholders and government for further use.</p> <p>2.4 Conceptual diagram for mangrove ecosystems.</p>	<ul style="list-style-type: none"> - Access to national and global data. - Required technology and software can be sourced within budget (exchange rates will not change dramatically).
<p>3. Prioritisation of degraded mangrove areas for restoration and other ecosystem-based approaches to benefit livelihoods and climate resilience.</p>	<p>3.1 Number of restorable degraded mangroves sites identified.</p> <p>3.2 Number of mangrove hectares under restoration and/or ecosystem-based intervention.</p> <p>3.3 Number of participants (50% women) trained in locally appropriate mangrove restoration methodologies. Completed by December 2021.</p> <p>3.4 Monitoring & evaluation system developed to track restoration progress in the selected sites.</p> <p>3.5 Webinar on Nature-based Solutions for disaster risk reduction and climate adaptation organised and recorded. Completed by September 2020.</p>	<p>3.1 & 3.2 Scientific report published on progress, key outputs and lessons learnt.</p> <p>3.3 List of attendance for the capacity building events.</p> <p>3.4 Monitoring and evaluation results from pilot activities on restoration are published including identifying key opportunities for continued restoration, including a sustainability plan through local stakeholders.</p> <p>3.5a Promotion material for the webinar: tweets, LinkedIn posts and flyer.</p> <p>3.5b List of certificates automatically delivered after attending the webinar.</p> <p>3.5c List of follow-up questions</p>	<ul style="list-style-type: none"> - Stakeholders are interested and supportive of initiatives. - Funding availability for restoration.
<p>4. Facilitation of cross sectoral policy mainstreaming and project uptake</p>	<p>4.1 Situation analysis of current political frameworks and opportunities for integrating nature-based solutions – particularly ecosystem-based approaches for disaster risk reduction and climate adaptation - and mangrove concepts</p>	<p>4.1 Situation analysis available online</p> <p>4.2 Draft of the management plan identifies entry points for incorporating ecosystem data into decision-making.</p> <p>4.3a PROM results highlighted at key national, regional, and international</p>	<ul style="list-style-type: none"> - Continuous support cooperation with government agencies, community leaders and IUCN. - Motivation and Interest from communities, local authorities and other stakeholders.

	<p>4.2 Territory-wide mangrove management plan drafted in consultation with key BVI ministries</p> <p>4.3 PROM results are highlighted in international platforms including the UN Community of Ocean Action for Mangroves, the Global Mangrove Alliance, the Partnership for Ecosystem-based Disaster Risk Reduction (PEDRR), and Friends of Ecosystem-based Adaptation (FEBA).</p>	<p>events to champion RLE and NbS as well as promote similar projects in the region.</p> <p>4.3b Communication analytics (website, social media profiles) of IUCN Global Ecosystem Management Programme, IUCN ORMACC and key partners, i.e BVI ministries, FEBA.</p>	<p>- Political stability.</p>
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Activities

Output 1) RLE experts training workshop and capacity building provided for national government, local and regional stakeholders and relevant assessors:

- 1.1 Online briefing on RLE to enable pre-workshop data gathering;
- 1.2 Data gathering for preliminary RLE assessment;
- 1.3 Expert Training workshop held on executing RLE assessments for local government, and relevant assessors;
- 1.4 Analysis and validation of data generated in activities 2.2 and 2.3;
- 1.5 RLE Validation workshop to validate and finalise mangrove ecosystem assessment.
- 1.6 Webinar on the Red List of Ecosystems – case studies & applications

Output 2) Territory-wide Red List of Ecosystems assessment for BVI mangroves:

- 2.1 Relevant data gathered;
- 2.2 Criteria A and B assessed, according to data availability and quality;
- 2.3 Criteria C, D and E assessed, according to data availability and quality;
- 2.4 Conceptual diagram for mangrove ecosystems developed;
- 2.5 National RLE assessment for mangrove ecosystems.

Output 3) Prioritisation of degraded mangrove areas for restoration and other ecosystem-based approaches to benefit livelihoods and climate resilience:

- 3.1 Detailed and robust map of mangrove cover and restoration opportunities in BVI is produced, including pre-and post- Irma imagery;
- 3.2 Capacity building in mangrove restoration methodologies for local stakeholders is conducted;
- 3.3 Restoration is executed with local organisations and communities at a number of priority mangrove sites based on the opportunity map as well as field data & local knowledge;
- 3.4 Monitoring & evaluation of success conducted throughout for adaptive management and to produce scientifically robust results.
- 3.5 Webinar on Nature-based Solutions for disaster risk reduction and climate adaptation – mainstreaming and implementation.

Output 4) Cross sectoral policy mainstreaming and capacity building:

- 4.1 Drafting of a territory-wide mangrove management plan in consultation with BVI government;
- 4.2 Closing workshop building capacity on integrating and mainstreaming project outputs;
- 4.3 Report on outcomes of project;
- 4.4 PROM results are shared/communicated in international platforms including the UN Community of Ocean Action for Mangroves, the Global Mangrove Alliance, the Partnership for Ecosystem-based Disaster Risk Reduction, and Friends of Ecosystem-based Adaptation;
- 4.5 Promotion of results and report via IUCN network.

Annex 3 Inception Report & Situation Analysis

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	X
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	X
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	X
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