

## Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

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

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

**Submission Deadline: 30<sup>th</sup> April 2022**

### Darwin Plus Project Information

Project reference	DPLUS119
Project title	Technical assistance programme for effective coastal-marine management in the TCI
Territory(ies)	Turks & Caicos Islands (TCI)
Lead partner	Joint Nature Conservation Committee (JNCC)
Project partner(s)	Department of Environment and Coastal Resources (DECR), Turks & Caicos Islands Government (TCIG) South Atlantic Environmental Research Institute (SAERI)
Darwin Plus grant value	£324,297
Start/end dates of project	Start: August 2020; End: July 2023
Reporting period (e.g. Apr 2021-Mar 2022) and number (e.g. Annual Report 1, 2)	April 2021 – March 2022; Annual Report 2
Project Leader name	Dr Megan Tierney
Project website/blog/social media	Project Website: <a href="https://jncc.gov.uk/our-work/turks-caicos-islands-marine-coastal-management/#toc">https://jncc.gov.uk/our-work/turks-caicos-islands-marine-coastal-management/#toc</a> Social Media handles: @JNCC_UK, @SAERI_FI
Report author(s) and date	Dr Megan Tierney, May 2022

### 1. Project summary

The Turks and Caicos Islands (TCI), one of the UK's Caribbean Overseas Territories (Figure 1), face complex environmental management issues in the face of anthropogenic and climate change impacts. The ability of the natural environment to support the TCI economy and provide resilience to climate change impacts requires access to the best available evidence to inform decision making, from community to Ministerial levels.

The '*Technical assistance programme for effective coastal-marine management in the TCI*' (DPLUS119) project is an international collaboration led by the Joint Nature Conservation Committee (JNCC). The project was awarded Darwin Plus funding in 2020 to undertake a 3-year project in the TCI. JNCC, the TCI Government Department of Environment and Coastal Resources (DECR), and the South Atlantic Environmental Research Institute (SAERI) will work in partnership to develop an enhanced evidence base to support sustainable coastal and marine management approaches in the islands.

Working with local communities, science professionals and decision-makers, the project will provide in-depth support and capacity building in using information management, environmental indicators and

environmental status assessments. New mapping tools will support decision making, maximising the use and value of existing data, and support implementation of a new TCIG Environment Strategy.

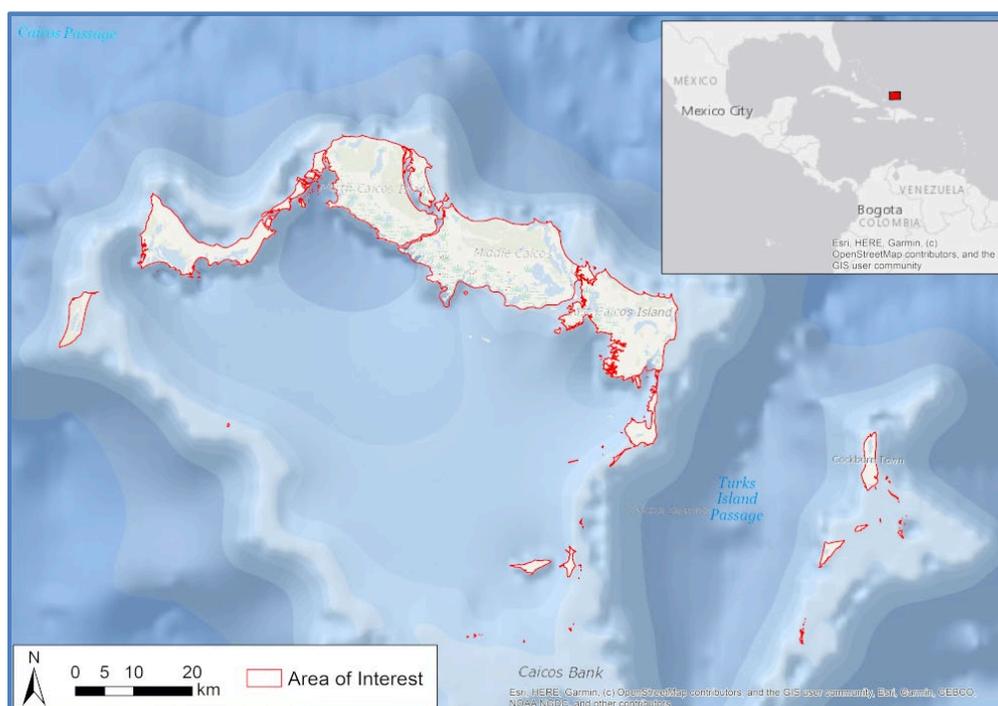
Specifically, the project will address the following needs/priorities of the TCI which to date have not been addressed through previous or current projects:

- Support the development of the TCIG’s new Environment Strategy and its request to JNCC for in-depth technical support to achieve this and for other projects/programmes.
- Maximise TCIG’s use and access to existing and newly emerging data from past and current projects and maximise connectivity between projects including the SAERI led project ‘Developing Marine Spatial Planning tools’ ([DPLUS094](#)) and eftec led ‘Caribbean Overseas Territories Regional Natural Capital Accounting Programme’ ([DPLUS108](#)), which JNCC and DECR partner on.
- Build evidence on marine and coastal natural assets to support informed decision making, and build local capacity to undertake marine and coastal asset status and condition assessments.
- Build, in collaboration with other Darwin Plus projects, on-island IT capacity, and implement knowledge transfer to build specialist skills and expertise for the long-term.

Through the following interrelated work packages, the project will deliver:

- Work Package 1 (WP1): A natural capital evidence base and tools, including asset register and ecosystem service maps.
- Work Package 2 (WP2): Status and vulnerability assessments for marine-coastal habitats within TCI territorial waters based on best available evidence.
- Work Package 3 (WP3): Marine indicators to monitor changes in marine-coastal natural capital enabling progressive adoption of a monitoring programme.
- Work Package 4 (WP4): Enhanced capacity of TCIG staff in natural capital approaches and heightened awareness by the community and stakeholders of the value of the TCIs marine and coastal environments.
- Work Package 5 (WP5): Improved IT and data management systems and protocols.

Through the provision of practical tools and enhanced capabilities to understand natural capital approaches by decision-makers and local communities, it is expected that the project will result in laying a strong foundation for strategic, sustainable management of the TCIs marine and coastal environments.



**Figure 1.** The Turks & Caicos Islands (map from Jones, G and Lightfoot, P (2020). Darwin Plus 081 Project: Mapping Terrestrial habitats of the TCIs. JNCC Report No. 664).

## 2. Project stakeholders/partners

### Background to development of project partnerships and project conception

JNCC is the public body that advises UK Government, the devolved administrations and UK Overseas Territories (UKOTs) on nature conservation. More specifically, JNCC has been working with TCIG over a number of years on a range of environmental conservation and management projects and has a formal MoU in place with TCIG's DECR defining this partnership.

In terms of strategic environmental management, JNCC is working with TCIG to develop a new, long term, national Environment Strategy for the terrestrial and marine environments. TCIG formally requested technical support from JNCC to implement the Environment Strategy and assistance in developing other environmental management measures, recognising the limited on-island capacity, and increasing demands of multiple Darwin Plus, CSSF and potential future Blue Belt projects. The DPLUS119 project represents one element of the positive JNCC response to this request and will make a significant contribution to the Environment Strategy, enhancing connectivity between current and future TCI projects.

DPLUS119 is led by JNCC in partnership with DECR and SAERI. The project partners were involved with all aspects of project design, and together with relevant stakeholders have engaged and/or been kept informed of project progress during the reporting period as follows:

### Project Partners

The Project Management Group (PMG), which is comprised of representatives from each of the project partners (JNCC, DECR, SAERI), was established. Terms of Reference (ToRs) were agreed in Year 1 (Y1) of the project for the PMG and state that the PMG will monitor and steer the project, ensuring it aligns with the project proposal, and that the project is delivered on time and within budget. The PMG will also consider and advise on the overall project management plan, including supporting documents such as the Monitoring and Evaluation Plan, Risk Register and Issues Log, and will review and approve all primary project outputs prior to external release. The PMG will also highlight synergies between this project and other, related projects which they may be involved with so as to align and maximise outputs of each.

Due to the Project Leader needing to be based in Australia for the first half of the reporting period for compassionate reasons (see more details in Section 9), and therefore PMG members operating across time zones incompatible for online meetings, no PMG meetings were held between April – October 2021. However the PMG remained in contact via email, with the Project Leader providing updates or requesting feedback/direction on any issues that arose as required. Once the Project Leader was back in their home base (Falkland Islands), more regular PMG meetings were able to take place over the remainder of the reporting period (**Annex 6a**), including: 1) an online progress meeting held in October 2021, and which was also used to discuss and prepare a major Change Request which was submitted in December 2021 and subsequently approved by LTS/Defra, in February 2022; 2) a progress meeting held in-person between JNCC and DECR PMG members, when some members of the JNCC team were in the TCIs in February 2022. All aspects of the project, including any risks or issues identified in the respective logs, and the on-going programme of work were discussed. Minutes of meetings were distributed to all PMG members.

### Technical Teams

Ensuring early input and feedback from DECR on initial phases of the technical components of the project was seen as paramount to ensuring the tools and methods developed will be fit-for-purpose for the intended end-users – i.e. DECR and wider TCIG staff, as well as other relevant stakeholders.

Therefore, throughout this reporting period, a number of online meetings have been held between JNCC, DECR and SAERI technical staff in the first instance, to discuss proposed approaches, review draft products and comment on subsequent enhancements. These meetings have included: agreeing priority habitats for status and vulnerability and assessments (WP2 and WP3), proposed agenda for WP2 workshop to be held with the Project Advisory Group (PAG) agreeing indicators that will be developed (WP3), and identification of data sources (all WPs). These technical meetings, together with forums held with the PAG (where relevant) will continue throughout the life of the project.

## Related DPLUS projects

To ensure activities are aligned with other on-going and relevant DPLUS projects, regular contact has been made, either through online meetings and/or email correspondence with the project leads for DPLUS094 ('Developing Marine Spatial Planning tools for the TCIs') and DPLUS108 ('Caribbean Overseas Territories Regional Natural Capital Accounting Programme').

Prior to the conclusion of DPLUS094 (October 2021), interactions with DPLUS094 were particularly beneficial with respect to identification of available data through the newly developed TCI Data Portal (<https://dataportal.gov.tc/>). The DPLUS119 project continues to make use of the TCI Data Portal when searching for/requesting data for use under the different activities it is conducting; and will upload its data products to the portal when they are ready for sharing.

Interactions between the DPLUS108 and DPLUS119 projects has primarily focussed on sharing progress updates. Sharing/integration of outputs will occur as each project progresses.

It was anticipated that there would be beneficial synergies between DPLUS119 and the proposed, and now awarded, DPLUS project [DPLUS153](#) 'Conserving tropical marine ecosystems in TCI through science-based fisheries management'. As such JNCC were invited as a project partner on DPLUS153 to ensure alignment and good communication between the two projects. The DPLUS119 Project Leader is a member of the DPLUS153 PMG, and has attended DPLUS153 start-up and progress meetings since it came on-line in late 2021. It is anticipated that there will be further substantial sharing/integration of outputs as each project progresses.

## Project Stakeholders

Members of the Project Advisory Group (PAG), which is comprised of representatives from the project partners, TCIG, non-government organisations, research institutes and industry, were identified and invited to join the group towards the end of Y1 of the project. The PAG provides a forum for the sharing of information, advice and expertise on activities undertaken as part of the DPLUS119 project. It does not meet regularly, but instead is invited to participate in events (e.g. workshops) at key-points of the project, when wider advice/expertise/feedback is required. In this reporting period, the PAG was formalised through an introductory session (see more details in Section 3.1, Output 4, Activity 4.4) and the first PAG event was held via a workshop in August 2021 to identify the range of activities and pressures on TCI marine habitats to feed into assessments being undertaken as part of WP2 (see more details in Section 3.1, Output 2, Activity 2.2).

Further direct interaction with other project stakeholders, e.g. through community events has not taken place during this reporting period, primarily because the project is not yet at a stage to undertake these activities; Covid-19 restrictions would have also restricted such in-person events. It is hoped that a range of community-based events will be able to take place during Year 3 (Y3) of the project.

## 3. Project progress

### 3.1 Progress in carrying out project Activities

#### Output 1 – A natural capital evidence base and tools are developed through a capacity building process with TCIG staff (WP1)

**Summary: All planned activities for this year have been completed.**

**Activity 1.1, 1.2, 1.3, 1.4 and 1.5:** These were completed and reported upon in Y1 of the project; however note: in this reporting period there was further refinement of the Asset and Risk register report produced at the end Y1 (Activity 1.2), following further rounds of comments and subsequent edits before it was published as [Hooper et al. 2021](#)<sup>1</sup> on the JNCC Resource Hub. Alongside this report two key data products were created. The first is an Asset Service Matrix for many marine assets in the TCI, created using the

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<sup>1</sup> Hooper, T., van Rein, H., Day, J., Cordingley, A. & Lawson, J. (2021). Developing an asset register for the Turks and Caicos coastal-marine area. Report prepared as part of the Darwin Plus 119 project 'Technical assistance programme for effective coastal-marine management in the Turks and Caicos Islands'. JNCC Report No. 692. Joint Nature Conservation Committee (JNCC), Peterborough, UK. ISSN 0963-8091.

beta version of natural capital asset register framework (Activity 1.2), spatial data, literature reviews (Activity 1.3) and confidence assessments of the relationships between assets and ecosystem services (Activity 1.4). The second data product was a map package of where ecosystem services are likely to be supplied from marine assets in the TCI and their relative level of supply (Activity 1.5). Both of these data products are ready for upload to the TCI Data Portal, however this has been delayed due to change-overs in DECR/SAERI. These are expected to be resolved early in Y3 of the project, after which the two data products will be uploaded for use into the TCI Data Portal.

**Activities 1.6, 1.7, 1.8 and 1.9:** There was no planned work against these activities in this reporting period; however note: following further discussions within the Project Team in late March – early April 2022, it has been agreed that a formal change will be proposed to Activity 1.8 to better reflect current thinking and possibilities within the scope of the project. The proposed change will include allocation of resource in Activity 1.8 to bring together insights from WPs 1-3 and scope out a more integrated system for weighing up environmental management scenarios that combines the natural capital asset data (maps and registers) with ecosystem service supply with condition assessment logic chains and indicators. If the change is approved, the new Activity 1.8 will deliver a scope for follow-on work that will help best structure how the data products in this project could be better integrated and used to facilitate management considerations in marine areas of the TCIs.

## Output 2 – Completed status assessments for marine and coastal habitats within TCI territorial waters based on best available evidence through a capacity building process with TCIG staff (WP2)

**Summary: All planned activities for this year have been completed.**

**Activity 2.1 (Habitat Map):** This activity was completed and reported upon in Y1 of the project.

**Activities 2.2 – 2.5 and Activities 3.1 – 3.4 (Priority Habitats):** Discussions were held with the WP2 and WP3 leads, DECR and members of the PAG to identify and agree the priority habitats for both the assessment (WP2) and indicator (WP3) work. Due to a mixture of data availability and time constraints, it was agreed that three instead of five priority habitats would be selected. These are: Coral reefs, seagrass and sand.

**Activity 2.3 (Literature Review):** A literature review of the three priority habitats has been completed to record existing evidence of the condition of habitats, categorised as damaged, good, or unknown, and of sensitivity to anthropogenic pressures (Figure 2). Evidence was recorded as either proxy or empirical, and confidence scores were assigned based on the amount and type of evidence available.

Reference title	Author	Year	Name of publication	Location (Islet at)	Evidence of condition	Evidence on sensitivity	Condition	Brief description of evidence on condition	Brief description of evidence on sensitivity	Confidence	Rationale for confidence	Pressure
1. Ecological assessment to detect imminent change in coral reefs of Admiralty Cookburn Land and Sea National Park, Turks and Caicos Islands. Marine Ecology. Sponner, T.J., Franer, T., Herrer, F., Lockhart, K., Hibbert, M. and Lewis, A., 2008. Turks and Caicos Islands 2006 coral reef assessment: Large-scale environmental and ecological interactions and their management implications. <i>Revista de Biología Tropical</i> .	Dikou, A., Ackerman, C., Banks, C., Dempsey, A., Fox, M., Gira, M., Herrer, F., Parnes, A., Roach, S., Horder, J. and Spang, C., 2009.	2008	Turks and Caicos Islands 2006 coral reef assessment: Large-scale environmental and ecological interactions and their management implications	Coral_Grouau et al 117(OA20 - TCI)	Yes - empirical	Yes - empirical	damaged	• Observed and assessed baseline data on the benthic composition and coral community structure at South Caicos. • Study sites around the South Caicos Island appeared to be similar in hard coral community structure however, benthic composition was variable. • The dominant benthic component found on the reefs was carbonate substrate, indicating an overlying reef framework. • On benthos largely dominated by carbonate substrate dominated benthos had a low percent cover of live coral. • Compared to historic data, there has been a sharp extension surveys were carried out in Providenciales, South Caicos, East Caicos, and Grand Turk. • Live coral cover averaged 10-20%, maximum around 40%. Dead coral exceeded live coral at all sites. • Progressive decline in live coral cover over the past 15-20 years was clear at all sites.	• Observations of algae zonation in many of the shallow reefs that were surveyed, suggested to indicate land-based nutrient sources. • High levels of algae were also seen at many remote sites with no land-based nutrient sources. • Authors also suggest that the impact of increased sedimentation and nutrients has started to cause a 'shallowification' from coral to algal reefs. • An increase in sediment-resistant hard corals across the TCIs is also predicted by the authors, e.g. <i>Solenastrea</i> spp.	Moderate	This study collected data on 100BA with 9-14 replicate surveys per site. All survey sites were situated in South Caicos. Minimal data collected on pressures/sensitivities.	Sedimentation, excess nutrients, Macroalgae
2. Contrasting color loss and restoration in survivors of the 2014-2017 coral bleaching event in the Turks and Caicos Islands. <i>SN Applied Sciences</i> , 2(5), pp.1-12.	Kripp, A.L., Pettipiece, J.C., Jaded, C. and Hettler, H., 2020.	2020	Contrasting color loss and restoration in survivors of the 2014-2017 coral bleaching event in the Turks and Caicos Islands. <i>SN Applied Sciences</i> , 2(5), pp.1-12.	Coral_Kripp et al 117(OA20 - TCI)	Yes - empirical		good	• Assessed coral colour, as a coral health proxy, across South Caicos in relation to the 2014-17 global bleaching event (GBE). • All coral sites surveyed at the study sites were found to be resilient to the maximum regional thermal stress during the 2014-2017 GBE. • Mainly plate-type corals bleached significantly during the GBE however, both plate-type and boulder-type significantly responded to pre-GBE health by the beginning of 2017. • Observed the characteristics of coral assemblages across South Caicos. • Three distinct assemblages were depicted. • Coral assemblages found on the reefs tended to have low species richness and the most homogeneous distribution of individuals per species. • An 85m was found to have the highest species richness and diversity, with comparatively heterogeneous individual assemblages.	• Progressive mortality appears to be underway from coral bleaching/coral diseases, algae overgrowth, and in some locations near dredging, from excessive turbidity. • Stress from sedimentation was seen downstream from the Cruise Ship Port dredging site. • High algae abundance was seen at almost all sites. • Epidemic levels of coral diseases were found at many locations, most commonly was an intense patches of White Plague disease. • Large areas of shallow reef framework that died from White Band Disease around 1979, and have shown little signs of recovery since. • Many diseases correlate with certain species of algae, which might be reservoirs for pathogens. • Most TCI reefs are algae dominated, driven by an excess of nutrients.	Low	Only focused on South Caicos. Used coral colour as a proxy to assess coral bleaching. Dated study (1999)	Bleaching
3. Species presence and distribution of <i>Solenastrea</i> (Cnidaria: Anthozoa) from South Caicos, Turks and Caicos Islands. <i>Bulletin of Marine Science</i> , 65(3), pp. 891-913.	Steiner, S.C.C., 1999.	1999	Species presence and distribution of <i>Solenastrea</i> (Cnidaria: Anthozoa) from South Caicos, Turks and Caicos Islands. <i>Bulletin of Marine Science</i> , 65(3), pp. 891-913.	Coral_Steiner et al 117(OA20 - TCI)	Yes - empirical	No	good	• Shallow water coral assemblages (B1) thought to be influenced by persistent wave impact of the easterly Trade Winds causing turbulence and scouring. • Coral assemblages found on the reefs tended to have low species richness and the most homogeneous distribution of individuals per species. • An 85m was found to have the highest species richness and diversity, with comparatively heterogeneous individual assemblages.	• Shallow water coral assemblages (B1) thought to be influenced by persistent wave impact of the easterly Trade Winds causing turbulence and scouring. • Coral assemblages found on the reefs tended to have low species richness and the most homogeneous distribution of individuals per species. • An 85m was found to have the highest species richness and diversity, with comparatively heterogeneous individual assemblages. • Anopora tenuicornis was thought to have once been a	Low	Limited information/data on actual condition of corals. Dated study (1999) and small survey range (South Caicos).	Trade winds (turbulence and scouring), sediment run-off

Figure 2. Screenshot of the compilation of data and information from the literature review undertaken to record existing evidence of condition of the TCI coral reef, seagrass and sand habitats.

**Activity 2.2 (Identifying Activities and Pressures):** A collation of information and data on activities and pressures occurring in TCI waters was completed which drew upon information in the TCI Data Portal, online searches and prior data searches from WP3. Challenges were found in accessing spatial data for some activities, particularly fishing. This may mean changes are needed to the approach being used for the status/condition assessment work. Activities were correlated to those in the [JNCC UK pressures-activities database](#), and associated medium-high risk pressures identified (Figure 3).

PAD activity category	PAD activity	Pressures (medium-high RPP only)
Transport	Vessel movements	Above water noise Underwater noise changes Visual disturbance
	Vessel moorings	Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion Physical change (to another seabed type) Physical change (to another sediment type)
	Vessel berths	Abrasion/disturbance of the substrate on the surface of the seabed Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion Physical change (to another seabed type) Physical change (to another sediment type)
	Vessel anchorages	Abrasion/disturbance of the substrate on the surface of the seabed Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion
Other man-made structures	Cultural and heritage sites (e.g. wrecks, sculptures, foundations etc.)	Abrasion/disturbance of the substrate on the surface of the seabed Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion Physical change (to another seabed type) Physical change (to another sediment type)
	Diving (incl. removal of living resources)	Wave exposure changes
Extraction of living resources	Line fishing	Removal of target species Abrasion/disturbance of the substrate on the surface of the seabed Removal of non-target species
	Pelagic fishing (or fishing activities that do not interact with sea bed)	Removal of target species Removal of non-target species
Maintenance Dredging	Capital dredging	Abrasion/disturbance of the substrate on the surface of the seabed Barrier to species movement Changes in suspended solids (water clarity) Habitat structure changes - removal of substratum (extraction) Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion Smothering and siltation rate changes (Heavy) Smothering and siltation rate changes (Light)
		Abrasion/disturbance of the substrate on the surface of the seabed Barrier to species movement Changes in suspended solids (water clarity) Emergence regime changes, including tidal level change considerations Habitat structure changes - removal of substratum (extraction) Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion

Figure 3. Screenshot of the Pressures and Activities database compiled as part of Work Package 2.

The JNCC WP2 leads conducted a workshop with the PAG to prioritise the activities and pressures for the sensitivity assessments and resultant status assessment work (Figure 4). Minutes summarising the outcomes from the workshop were provided to the PAG (Annex 3a).

Activities identified include:

- Current activities that might put pressure on marine-coastal habitats: ferry routes, moorings, artificial structures, wrecks, cruise ships, lobster and conch fishing, sport fishing, boat rides/sailing, dredging (navigational), sewage runoff, jet skiing, fly boarding, ecotourism (viewing/feeding stingrays), coastal activities (picnics etc.), diving/snorkelling, removal of terrestrial cover, agriculture, construction of new marine structures (marinas), digging canals, land clearance, small-scale oil spills mainly from shipping, run off from other Caribbean islands contributing to large quantities of sargassum blooms, landfill sites causing increases in algae and cyanobacteria
- Future activities that might put additional pressure on marine-coastal habitats: floating bars, sand mining operations, increased number of yachts and associated activities at large marinas.

The key pressures agreed to be assessed for sensitivity were:

- Abrasion/disturbance of the substrate on the surface of the seabed and penetration of the substrate below the surface of the seabed: these will have the same sensitivity scores and evidence.
- Smothering and siltation changes – at both heavy and light levels.
- Physical change to another seabed or sediment type: all habitats are assessed as highly sensitive to this pressure as it assumes complete change of one habitat to another.
- Physical loss (to land or freshwater habitat): all habitats are assessed as highly sensitive to this pressure as it assumes complete loss of habitat.

- Organic enrichment: effects from Sargassum and algal blooms.
- Introduction of microbial pathogens: Effects from SCTL and other diseases.

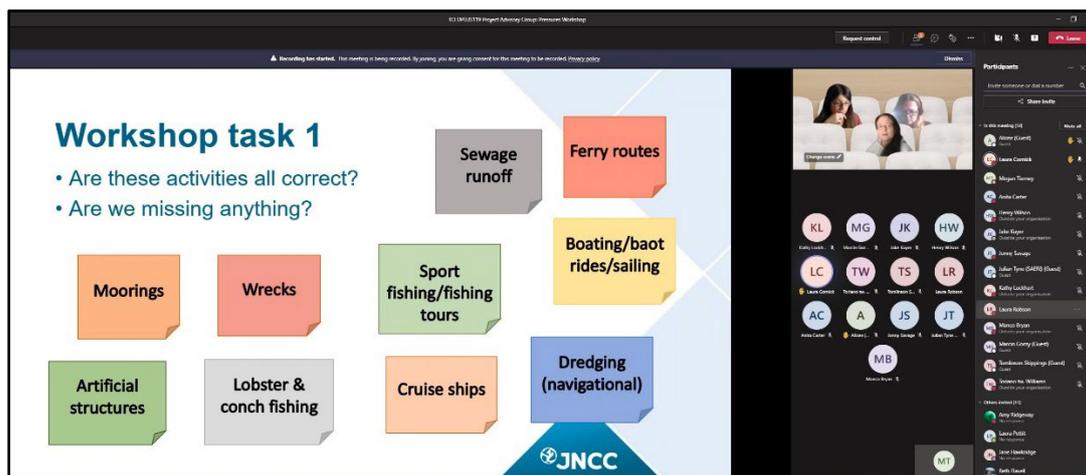


Figure 4. Screenshot of presentation and participants at the online Activities and Pressures workshop held as part of Work Package 2.

**Activity 2.4 (Sensitivity Assessments):** Sensitivity assessments for the identified pressures has been undertaken for the three key habitats. It should be noted that there is a notable lack of evidence on sensitivity for sand habitats (and associated algal communities), however sufficient evidence was available for coral reefs and seagrasses for most pressures. Unfortunately, due to the timeframes available, further pressures can not be assessed, but would add value to the final sensitivity and associated condition assessments. Through the knowledge exchange programme planned as part of WP2 in Y3 of the project, sufficient guidance should be imparted for DECR staff and/or other stakeholders to undertake these assessments in the future. The evidence and data produced under these activities will be used in status/condition work of WP2 (i.e. Activities 2.5 and 2.6).

The methods for activities, pressures and sensitivity work have been drafted (**Annex 3b,c**) and is currently undergoing final sign-off by the PMG prior to publication. It includes:

- Rationale for selection of the three habitats
- Methods for the asset condition literature review, with outputs annexed
- Methods for the work undertaken for selecting activities, pressures and the sensitivity assessment methods used, with outputs annexed
- Recommendations/tools/guidance to DECR to undertake similar work in the future.

**Activity 2.5 (Vulnerability Assessments):** The vulnerability assessment work to help evaluate the data resources and to identify best approaches for this assessment commenced in the latter part of this reporting period. This has involved taking the sensitivity data from Activity 2.4 and combing with the priority pressures and activities that cause them (identified in Activity 2.2), and overlaying them on the benthic habitat map from Activity 1.2. As these products are yet to be shared and discussed with the Project Partners and PAG, drafts have not been included for presentation in this annual report.

**Activity 2.6 (Asset Condition):** Work on Activity 2.6 will build upon outputs from Activities 2.4 and 2.5, and will commence once both are completed.

**Activity 2.7 (Knowledge Exchange Programme):** There was no planned work against this activity in this reporting period.

### Output 3 – Marine indicators to monitor changes to coastal/marine natural capital enabling progressive adoption of a monitoring programme developed through a capacity building process with TCIG staff (WP3)

**Summary: All planned activities for this year have been completed.**

**Activity 3.1 (Scoping Exercise):** As noted in the Y1 Annual Report, while this activity had commenced in Y1, additional time was required to finalise the exercise whereby priorities, data availability and an indicator development plan could be scoped. This has now been completed and the report published as [Britton et al. 2022](#)<sup>2</sup> on the JNCC Resource Hub. The scoping report provides a summary of the indicators which could be developed and includes a plan for indicator development.

**Activity 3.2 (Literature Review):** This activity was completed and reported upon in Y1 of the project, and has now been published as [Britton et al. 2021](#)<sup>3</sup> on the JNCC Resource Hub.

**Activity 3.3 (Indicator Development – Phase 1):** Phase 1 of the indicator development was initiated in this reporting period with meetings held between JNCC and DECR to discuss the final list of indicators and priorities for the first phase of indicator development (Figure 5). The indicator selected for the first phase of development was seagrass extent and condition. The first phase of indicator development has taken place and a report outlining the approach taken has been drafted and will shortly be circulated to the PMG for final sign-off and then publication on the project web-page/JNCC Resource Hub (**Annex 4a**). The draft report includes information on the indicator approach and how the indicator would be run in theory. The indicator approach has been piloted using available data from TCI.

One of the limitations to being able to develop a full indicator at this stage has been data availability. The report provides information on what additional data could feed into the indicator and how the indicator could be further developed should more data become available.



**Figure 5.** Screenshot of presentation, questions and considerations discussed by JNCC and DECR in order to determine the priority indicators to be developed.

**Activity 3.4 (Indicator Development – Phase 2).** A meeting was held between the JNCC WP2 leads and TCIG project contact point (Dr Kathy Lockhart) in February 2022 to provide an update on the indicator

<sup>2</sup> Britton, A., Smith, A., & Pettit, L. (2022). Marine indicators to monitor changes in marine-coastal natural capital indicator scoping. JNCC Report No. 698. Joint Nature Conservation Committee (JNCC), Peterborough, UK. ISSN 0963-8091.

<sup>3</sup> Britton, A., Smith, A., Pettit, L. & Vina-Herbon, C. (2021). Technical assistance programme for effective coastal-marine management in the Turks and Caicos Islands (DPLUS119) – WP3: Marine indicators to monitor changes in marine-coastal natural capital – Review of indicators from the literature. JNCC Report No. 693. Joint Nature Conservation Committee (JNCC), Peterborough, UK. ISSN 0963-8091.

development under WP3; and to initiate discussions about the second indicator to be developed during Y3 of the project.

**Activity 3.6 (Information Management Plan):** The first phase of indicator development has looked at data required to feed into the indicator, including that from direct monitoring. It has also looked at the data types required for the indicator. This information will help to develop the information management plan for management of data to inform indicators and future monitoring recommendations which will be completed in Y3 of the project.

**Activities 3.5 (Validation Workshop) and 3.7 (Knowledge Exchange Programme):** There was no planned work against these activities in this reporting period.

#### **Output 4 – Building TCIG staff capacity in natural capital approaches and raising awareness through community engagement and communications (WP4)**

**Summary: All planned activities for this year have been completed.**

**Activity 4.1 (Planned Capacity Building Programme):** One of the project’s major aims/outputs is to build TCIG staff capacity in a range of technical areas (natural capital approaches, mapping, indicator development, status assessments, IT management), and to enhance awareness-raising through community engagement and communication. This was to be delivered through a structured programme of JNCC senior specialist placements into the TCIs to work closely with TCIG, providing focussed skills transfer across the technical areas of the project. Due to national and international travel restrictions imposed by the Covid-19 outbreak in 2020 and 2021, planned Knowledge Exchange (KE) trips had to be postponed. Throughout the reporting period, ongoing uncertainty and logistical challenges of international travel necessitated consideration of how the KE elements could be delivered most effectively as well as providing some stability in planning and execution.

A positive consequence of the Covid-19 outbreak has been that the teams in the UK and the Territories have become very proficient at utilising a variety of tools for remote meetings, conferencing and delivery of training. The PMG therefore agreed to capitalise on these new skills and tools in order to deliver the major elements of the KE programmes planned for each of the technical work packages (WP 1-4). These will be conducted in a variety of formats, depending on content, and may be run over a number of sequential sessions to foster assimilation of information, application of tools/methods to real-world scenarios, and shaping of further capacity building sessions.

The WP-specific KE programmes will be conducted throughout Y3 of the project; changes have been captured in the revised logframe that was submitted through the formal Change Request process in December 2021 and approved in February 2022.

Even though the PMG noted that remote delivery can be effective, it was also recognised that it can not entirely replace in-person exchanges. Therefore, in addition to the remote WP-specific KE programmes, the project will now also hold one in-territory KE event in Y4 of the project. This event will showcase all elements of the project, demonstrating how they fit together, as well as providing the opportunity to conduct final in-person capacity building sessions for some of the technical aspects of the project.

**Activities 4.2, 4.3, and 4.5:** These activities were completed and reported upon in Y1 of the project; however note, now that it has been decided (and approved) to hold the WP-specific KE events remotely (see details provided under Activity 4.1), the stakeholder engagement and communications strategy document (Activity 4.3) will be revised in Y3 of the project to explore how these events will be run to ensure best delivery and enhanced capacity of relevant stakeholders.

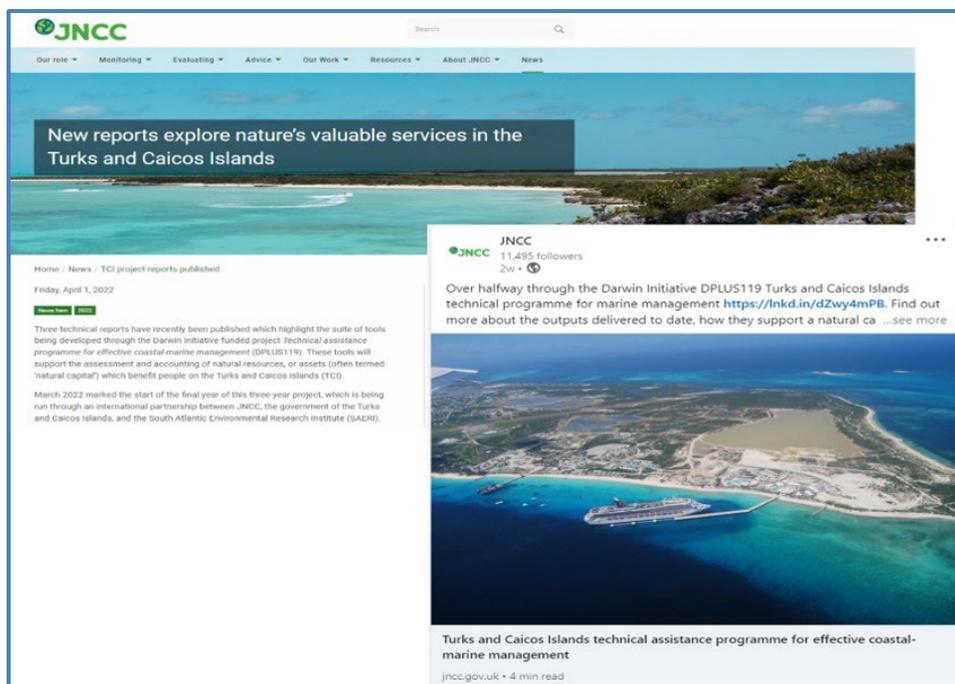
**Activity 4.4 (Deliver Stakeholder Engagement Plan):** Due to the ongoing challenges presented by Covid-19 (see details provided under Activity 4.1 and Section 12), it was not possible to execute any in-person stakeholder or community events in this reporting period. As outlined under Activity 4.1 a decision was taken by the PMG to run all WP-specific KE programmes as remote events in Y3 of the project. The WP leads and the PMG are continuing discussions on how these may be best delivered, and the stakeholder engagement and communications plan (Activity 4.3) is in the process of being adjusted accordingly.

However, the PAG that had been established towards the end of Y1 of the project was formalised with an online introductory and Q&A session held in August 2021. This session served to introduce PAG members to each other, provide an overview of the project, role of the PAG, the topics and timings of proposed PAG Forums, and an opportunity for PAG members to ask any other questions they may have about the project. ToRs were also agreed (**Annex 5a**). A workshop to gather input from the PAG on activities and pressures on TCI marine and coastal environments was held in August 2021 – see details summarised under Section 3.1 Output 2, Activity 2.2.

**Activity 4.6 (Project Updates):** A number of updates about the project were made during this reporting period, including:

- A news item on the JNCC website highlighting the mid-point of the project and the reports delivered to date (<https://jncc.gov.uk/news/tci-project-reports-published/>; Figure 6 and **Annex 5b**);
- Social media activity (on Facebook, LinkedIn, and Twitter) highlighting the publication of the news item (Figure 6), publication of project reports, and the WP2 Activities and Pressures Workshop (Figure 7).

Note, all Project Partners were involved in proofing the news item and social media posts prior to publication; and both the JNCC and Darwin Initiative DPLUS119 webpages were signposted through social media activity.



**Figure 6.** JNCC news item and social media highlighting the mid-point of the project and the delivery of products to date.

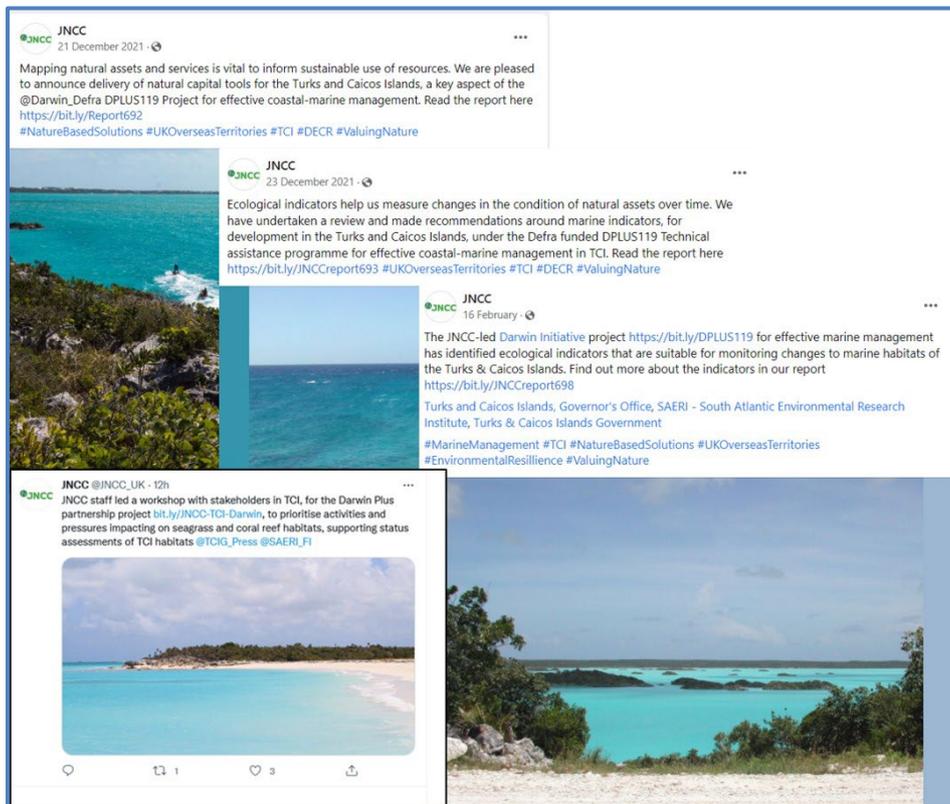


Figure 7. Twitter post highlighting the publication of the three project reports released during the reporting period, and the Activities and Pressures workshop held as part of Work Package 2.

Published WP Reports were also uploaded to the JNCC Resource Hub. The links to each are provided below, and will also be added to the individual WP pages being created within the project webpage:

- [WP1 Developing an Asset Register for the Turks and Caicos Coastal-Marine Area](#)
- [WP3: Marine indicators to monitor changes in marine-coastal natural capital - Review of indicators from the literature](#)
- [WP3: Marine indicators to monitor changes in marine-coastal natural capital indicator scoping.](#)

The landing page for the project on the JNCC website was updated to include more information about WPs 1-4, project partners, background, and related work (Figure 8). The webpage is available at: <https://jncc.gov.uk/our-work/turks-caicos-islands-marine-coastal-management/>. In addition to this, four additional webpages have been drafted for WPs 1-4. These provide more detail on the activities undertaken by the WPs and will host outputs as they are delivered (Figure 9 and Annex 5c). The WP webpages will be made live early in Y3 of the project and will be accessible from links on the landing page under the outputs section.

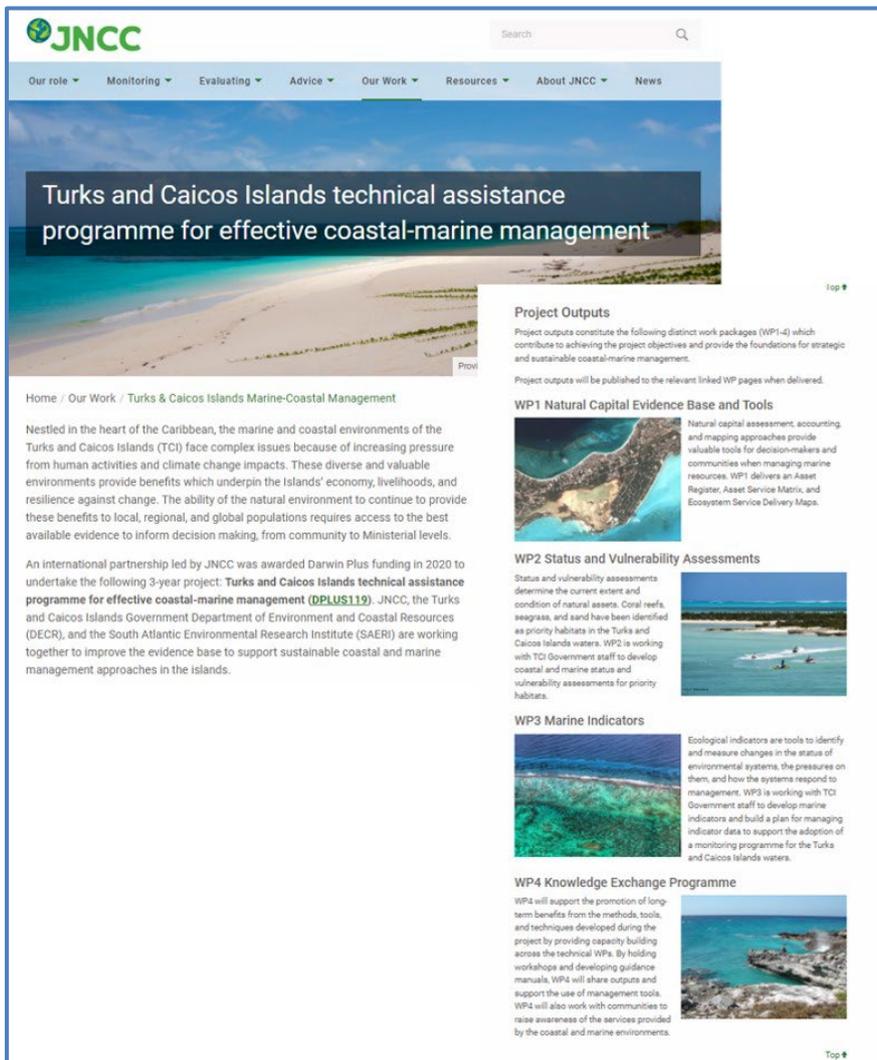


Figure 8. Screenshots of updated project webpage, preamble and outputs section, on the JNCC website.

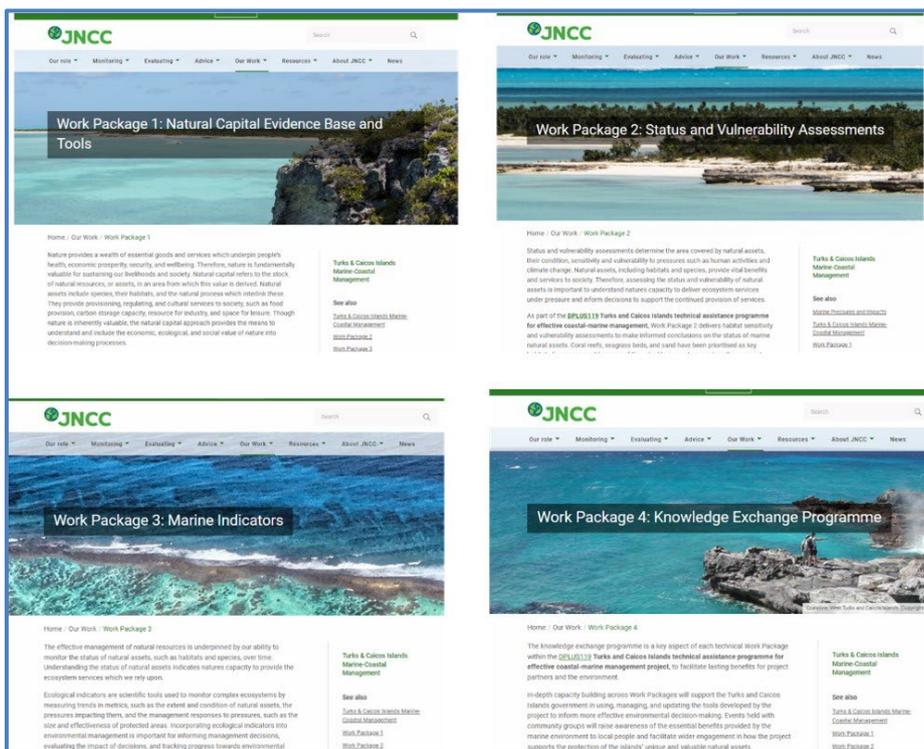


Figure 9. Screenshots of new project webpages for Work Packages 1 – 4 to be published on the JNCC website early in Y3.

During this reporting period, work between DPLUS119 and DPLUS094 was ongoing to develop appropriate guidelines for how to share and upload DPLUS119 products on the TCI Data Portal. This has involved ensuring that as well as any TCIG requirements, JNCC and Defra data sharing agreements would also be met before data is uploaded to the portal. The Data Sharing Agreement and Guidance document has been developed and agreed (**Annex 5d**). The sharing of the first of the DPLUS119 products has been postponed due to a delay in appointing a new DECR Data Manager following the end of the DPLUS094 project. Once this position has been filled or an interim contact for data sharing identified then communication will resume to facilitate the uploading of DPLUS119 products to the TCI Data Portal. These delays are expected to be resolved early in Y3 of the project, after which data products will be uploaded for use into the TCI Data Portal.

**Activities 4.7 (Knowledge Exchange Programme):** There was no planned work against this activity in this reporting period.

## Output 5 – Project management, reporting and IT

**Summary: All planned activities for this year have been completed**

**Activity 5.1 (Partner MoUs):** This activity was completed and reported upon in Y1 of the project

**Activity 5.2 (Partner Communications):** As outlined in Section 2, the PMG which was established in Y1 of the project has met regularly to monitor project progress (**Annex 6a**).

**Activity 5.3 (PMG and PAG Establishment and Communications):** As outlined in Section 2, a PMG was established in Y1 of the project and meet regularly to discuss progress, with minutes/actions shared with all members. As also outlined in Section 2 and under Output 4, Activity 4.4, the PAG that had been established towards the end of Y1 of the project was formalised with an online introductory and Q&A session in August 2021 and ToRs agreed (**Annex 5a**). The PAG meets at key points of the project – in this reporting round, this included an online workshop for WP2 to explore activities and pressures on TCI marine habitats (see Section 3.1 Output 2, Activity 2.2).

**Activity 5.4 (Monitoring & Evaluation Plan):** A monitoring and evaluation plan was developed and reported upon in Y1 of the project. This is updated regularly by the Project Leader and reviewed by the PMG at each PMG meeting (**Annex 6b**).

**Activity 5.7:** The DPLUS Half-yearly Report for Y2 of the project was shared with the PMG and submitted in October 2021. The report is available on the DPLUS website: <https://dplus.darwininitiative.org.uk/project/DPLUS119/>.

**Activities 5.5 and 5.6 (Environmental Data Management):** There was no planned work against these activities in this reporting period.

## 3.2 Progress towards project Outputs

Despite some challenges faced over the past year with the continued restrictions on international travel caused by the Covid-19 pandemic which has necessitated an (approved) Change Request, the project has made good progress against all Outputs.

### Output 1: A natural capital evidence base and tools are developed through a capacity building process with TCIG staff (WP1)

Output 1 is progressing according to schedule and progress against the individual Indicators is outlined fully in the **Annex 1** logframe. A number of tools have been developed for the first time for the TCIs, including: a natural capital service matrix (Indicator 1.2), a natural capital asset register (Indicator 1.3), and ecosystem service delivery maps (Indicator 1.1 and 1.3). These enhance the utility of the TCI Natural Capital Accounts which have been developed previously by JNCC and eftec in consultation with TCIG. The approaches used have numerous other benefits, including making good use of existing marine evidence and highlighting areas with multiple ecosystem benefits, and will form the baseline for the project's WPs focused on assessments of asset condition, development of asset indicators and future monitoring

strategies. Work associated with Indicators 1.1, 1.2 and 1.3 are complete but work is planned in Y3 of the project to further refine these outputs through ongoing stakeholder consultation and incorporation of additional datasets (Indicators 1.4 and 1.5). Work against the remaining Indicators (1.6 and 1.7) was also not planned for this reporting period. **Evidence for Output 1 is provided in Section 3.1**, which includes hyperlinks to reports published on the JNCC Resource Hub. It is expected that Output 1 will be achieved within the project timeframe, and all but Indicator 1.6 are still considered appropriate. As outlined in Section 3.1, Output 1, following discussions within the Project Team in late March – early April 2022, it has been agreed that a formal change will be proposed to Indicator 1.6 (which is associated with Activity 1.8) to better reflect current thinking and possibilities within the scope of the project. The proposed change will include allocation of resource in Activity 1.8 to bring together insights from WPs 1-3 and scope out a more integrated system for weighing up environmental management scenarios that combines the natural capital asset data (maps and registers) with ecosystem service supply with condition assessment logic chains and indicators. If the change is approved, the new Indicator 1.6/Activity 1.8 will deliver a scope for follow-on work that will help best structure how the data products in this project could be better integrated and used to facilitate management considerations in marine areas of the TCIs.

#### **Output 2: Completed status assessments for marine/coastal habitats within TCI territorial waters based on best available evidence through a capacity building process with TCIG staff (WP2).**

Output 2 is progressing according to schedule and progress against the individual Indicators is outlined fully in the **Annex 1** logframe. In this reporting period, WP2 has focussed on prioritising habitats that will be used in the sensitivity and status assessments, identifying pressures and associated activities in the coastal-marine waters of the TCIs, collating available data, undertaking sensitivity assessments for identified pressures in the priority habitats, and commencing the preparatory tasks for the condition assessments. The work which was planned for this reporting period and associated with Indicators 2.2, 2.3 and 2.4 were completed, and that associated with Indicator 2.5 commenced – see details outlined in the **Annex 1** logframe, and **evidenced in Section 3.1, and Annex 3**. Work against the remaining Indicator (1.6) was not planned for this reporting period. It is expected that Output 2 will be achieved within the project timeframe, and the current Indicators are still considered appropriate.

#### **Output 3: Marine indicators to monitor changes to coastal/marine natural capital enabling progressive adoption of a monitoring programme developed through a capacity building process with TCIG staff (WP3)**

Output 3 is progressing according to schedule and progress against the individual Indicators is outlined fully in the **Annex 1** logframe. In this reporting period, WP3 has focused on identifying priority habitats, finalising the scoping exercise, developing the indicator development plan and commencing the first phase of indicator development. When starting this project, there was no shortlist of marine indicators which could be used and the applicability of local, regional and global data sources to marine indicators which could be used within TCIs had not been explored. The literature review which was completed in the last reporting round, but published in this, has explored different indicator methods and has identified data requirements and metrics needed for each. Local, regional and global data sources which could be applicable have also been identified. The Output Indicators are being measured through an agreed indicator development plan (Indicator 3.1) and a literature review of indicators which could be used within the project (Indicator 3.2). This allows progress towards meeting the output to be tracked. Work associated with Indicator 3.1 and 3.2 is complete. Good progress was made against Indicator 3.3 with the development and testing of the first selected indicator (seagrass extent and condition), however data availability has limited full development at this stage. However information has been included in the report on what additional data could feed into the indicator and how the indicator could be further developed should more data become available. Initial discussions have been had in regards to development of the second indicator (Indicator 3.4), and gathering of information for the development of the information management plan for managing environmental data on indicators and monitoring recommendations has commenced (Indicator 3.6). Work against the remaining indicators (3.5 – 3.7) was not planned for this reporting period. **Evidence for Output 3 is provided in Section 3.1 and Annex 4**. It is expected that Output 3 will be achieved within the project timeframe, and the current Indicators are still considered appropriate.

#### Output 4: Building TCIG staff capacity in natural capital approaches and raising awareness through community engagement and communications (WP4)

Progress against the communications and stakeholder engagement has been mixed – see full details of progress against each Indicator in the **Annex 1** logframe. Project partners initially made strong progress with undertaking stakeholder mapping and developing the communications and engagement plan which are specific to this project (Indicator 4.2). However, ongoing constraints of the Covid-19 pandemic made planning for KE visits challenging (Indicator 4.1). That said, communications between the project partners around this issue continued in a positive and innovative manner throughout the reporting period and agreement was reached to plan all WP-specific KE events as virtual ones, thereby negating some of the uncertainty around planning for future international travel. These events will be held throughout Y3 of the project; and it is hoped that travel has stabilised by Y4 of the project to allow one on-island KE event to be held. Work associated with Indicator 4.2 is complete, however will be updated early in Y3 to reflect the decision to run all WP-specific KE events as virtual ones; this consequently will also influence how and when action for Indicator 4.3 is undertaken. Updates on project progress, publication of outputs and development of the project webpage (Indicator 4.4) has continued on a regular basis throughout the reporting period. Work against the remaining indicators (4.3 and 4.5) was not planned for this reporting period. **Evidence for Output 4 is provided in Section 3.1 and Annex 5.** It is expected that Output 4 will be achieved within the project timeframe, and the current Indicators are still considered appropriate.

#### Output 5: Project management, reporting and IT (WP5)

Output 5 is progressing according to schedule and progress against the individual Indicators is outlined fully in the **Annex 1** logframe. This Output is primarily focussed on project management and enhancing environmental data management and IT capacity in the TCIs. Prior to the start of the project there was no project management structure in place, but was developed in Y1 off the project and continues to be implemented. Work associated with Indicators 5.1 – 5.5 and 5.8 have been completed or commenced, noting Indicators 5.2, 5.3, 5.4 and 5.8 are ongoing throughout the project. Work against the remaining indicators (5.6 and 5.7), and which are associated with the data management and IT activities were not planned for this reporting period. **Evidence for Output 5 is provided in Section 3.1 and Annex 6.** It is expected that Output 5 will be achieved within the project timeframe, and the current Indicators are still considered appropriate.

### 3.3 Progress towards the project Outcome

The stated outcome for this project is *'Foundations for strategic, sustainable management of TCIs marine/coastal environment are created through provision of practical tools and enhanced capabilities to understand natural capital approaches by decision-makers and local communities'*.

The project has continued to make good progress towards achieving its Outcome in this reporting period. While a range of preliminary work has been conducted in the TCIs to both identify and raise awareness of its natural capital and the important contribution it makes to the people that live there from both an economic and social context, it was also recognised that the evidence base and tools required to inform decisions around the sustainable use of natural capital was still largely lacking. In this reporting period, work has primarily focussed on continuing to enhance that evidence base and develop methodologies and tools that will enable effective monitoring and management of natural capital resources (see Section 3.1 Output 1, 2 and 3). Given this, Outcome Indicator 0.1 is still considered appropriate, and **evidence cited in Section 3.1 Output 1, 2 and 3 as well as Annexes 3 and 4 shows progression** against this. The project shared news of some of the products (**see Section 3.1 Output 4 and Annex 5**), which is a first step towards raising greater awareness and understanding of natural capital and approaches for monitoring and assessing it (Outcome Indicator 0.3 and 0.5). As the project enters its third year, there will be a particular focus on the capacity building element of the project with a range of knowledge sharing events for identified stakeholders and community groups (Outcome Indicator 0.3 and 0.5). The project partners will also be working towards establishing the most effective way for ensuring that these approaches are embedded within TCIG policies and procedures for sustainable environmental, economic and social development (Outcome Indicators 0.2 and 0.4).

Hence, at this stage all Outcome indicators are still considered appropriate, and we anticipate that the project will be able to achieve the stated Outcome by the end of the project (July 2023).

### 3.4 Monitoring of assumptions

A number of important Risks and Assumptions were identified for this project and included in the project logframe (see **Annex 2**). Unless otherwise noted below, all identified risks and assumptions remain true for this reporting period. Also noted are any actions taken to manage assumptions relevant to this reporting period.

#### **Assumption 0.2:** Staffing turnover in lead and partner organisations enables project delivery.

*Comments:* There have been staff changes which has delayed progress of some activities (e.g. upload of DPLUS119 data products to the TCI Data Portal), and/or in the case of WP lead changes, time was required for hand-over and the new WP leads to come up to speed. However solutions were or are being worked through with the Project Partners and no detrimental impact on the project as a whole is expected.

Following the TCI elections held in 2021 and installation of a new government, there has been some reorganisation of TCIG Departments, including the splitting of DECR into two separate departments – DECR and the Department of Fisheries and Marine Resources Management (FMRM). The DECR project contact point – Dr Kathy Lockhart, has moved to FMRM, and while continues to be the project contact point, will likely hand this role to a different colleague within DECR early in Y3 of the project. Some time will be needed for the Project Leader and WP leads to bring the new DECR project contact point up to speed, but this not expected impact on project delivery.

#### **Assumption 0.5:** Any continued or new impact from the global Covid-19 pandemic or other unforeseen event (e.g. natural disaster) on staffing commitments, logistics, expenses etc. can be mitigated within remaining time-frames and resources available to the project.

*Comments:* The ongoing restrictions to international travel imposed by the Covid-19 pandemic have impacted on this project, necessitating rescheduling of the KE programmes and the format in which they will be delivered (e.g. from on-island and in-person programmes to online/remote methods). Every effort is being made to ensure the KE programmes can be successfully delivered within the remaining timeframes and resources available to the project.

#### **Assumption 1.1:** The Nature Conservancy Map is of sufficient quality to inform the project and/or sufficient other data is available to fill data gaps.

*Comments:* As reported in the Y1 Annual Report, The Nature Conservancy habitat map was determined the most applicable map for use by this project, and that it is based upon the best available data. However, because it uses relatively broad habitat classes, this may limit the resolution of some of the follow-on work for this project.

The search for relevant marine habitat data for areas beyond the shelf concluded that there is none currently available. Therefore it has not been possible to extend The Nature Conservancy Map to include these offshore areas in the mapping activities, and those related to it.

#### **Assumption 1.3:** Sufficient data is available to inform the creation of a full asset register.

*Comments:* As reported in the Y1 Annual Report, an extensive literature review and data search collated all available information to create the natural capital asset register, asset service matrix and ecosystem service maps for the TCIs. However substantial gaps in baseline information were also identified which does limit the number of assets included in the natural capital register and which could then be used in the asset service matrix and creation of ecosystem service maps. Recommendations for future work, focusing on the knowledge gaps and refinements of current approaches to improve the accuracy and confidence in the natural capital asset register, asset service matrix and ecosystem service delivery maps have been made, with some being addressed in Y3 of the project. Guidelines produced as part of the KE programme for this Output (Activity 1.9) should also ensure there is capacity within the TCIs to extend these products when baseline information becomes available.

**Assumption 2.1:** Activity data from DPLUS094 available in time to inform condition assessment.

*Comments:* Data have been provided but the activity and monitoring data are primarily point data sources, so will not show the extents of these activities within the coastal sea. The work under Activity 2.4 will include options for delivering condition assessments which can accommodate point data but at a lower level of confidence than with extent data.

**Assumption 3.2:** Sufficient data available to develop indicators.

*Comments:* As noted in the Y1 Annual Report, the WP3 literature review has identified global and regional datasets which could be used. There is limited local data available, although some has been identified. To mitigate this risk, pilot studies will be conducted on the indicators. This will allow datasets to be explored and for the marine indicator(s) to be applied to a small area before expanding across a wider area.

During this reporting period, it has been found that the limited data availability has impacted on the ability to develop a biodiversity indicator under Phase 1 of the indicator development activity. Information on seagrass extent has been taken from The Nature Conservancy Habitat map but lack of direct monitoring data means that there will be low confidence in any indicator outputs. Currently, there is not enough data available to be able to develop an indicator for seagrass condition. Recommendations for future work, focusing on the knowledge gaps and how the indicator approach could be further developed should more data become available have been made in the Phase 1 indicator development WP3 report (in draft; see **Annex 4**). Guidelines and training material produced as part of the KE programme for this Output should also ensure there is capacity within the TCIs to further develop the biodiversity indicators when more data becomes available.

**Assumption 4.4 and 5.5:** International travel between the UK and TCIs and national travel within TCIs is possible/permissible w.r.t. Covid-19 restrictions; and

**Assumption 4.5 and 5.6:** It is logistically feasible to undertake knowledge exchange visit – i.e. costs, staffing capacity, and/or mandatory Covid-19 quarantine periods are not prohibitive to effective delivery of activities.

*Comments:* Due to national and international travel restrictions imposed by the Covid-19 outbreak in 2020 and 2021, planned KE trips had to be postponed. To negate the continued uncertainty and logistical challenges of international travel, it was decided that the major elements of the KE programmes planned for each of the technical work packages (WP 1-4) would be delivered remotely. It was also decided that one in-person KE event will be held in Y4 of the project, when it is hoped that challenges of international travel have stabilised. These changes have been captured in the revised logframe (including assumptions) that was submitted through the formal Change Request process in December 2021 and approved in February 2022.

It is noted that the Covid-19 outbreak is having a serious effect on global economics. While travel and subsistence costs have been estimated from current prices, these may increase by the time of travel in Y4 of the project. Consequently, it may be necessary to reassess the duration and number of personnel travelling to the TCIs for the planned KE event to stay within budget limitations.

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

TCIG has a range of policies and strategies in place, or in development, which strive to achieve good environmental management and where their implementation will be enhanced by increased knowledge and tools provided by this project. Specifically, the project will contribute to helping TCI meet the TCI Vision 2040 Sustainable Development Goals 1 (High national income and wealth) and 3 (Healthy Natural Environment and Heritage and Cultural Assets), and the ten commitments under the TCI Environment Charter. It is also intended that outputs from the project will be incorporated into the new TCI Environmental Strategy that is under development. The Environmental Strategy will aim to rationalise environmental plans and activities, ensure effective implementation of environmental priorities, and support sustainable development. JNCC, the lead partner for DPLUS119, is also providing technical support for development of the Environment Strategy and therefore can help ensure outcomes from

DPLUS119 and other related projects align with the objectives and framework established under the new strategy.

Project outcomes will also support UK policy objectives within the UK Overseas Territories Biodiversity Strategy (UKOTBS) and the 25 Year Environmental Plan (25YEP). Strategic priorities under the UKOTBS include providing UK Government support to: 1) enable data collection on the location and status of biodiversity interests and the human activities affecting biodiversity to inform the preparation of policies and management plans (including baseline survey and subsequent monitoring); develop tools to value ecosystem services to inform sustainable development policies and practices; and develop ecosystem-based initiatives for the conservation and sustainable use of the marine environment. By improving knowledge and tools on natural capital approaches, including indicator development, this project will also contribute to the following key policy areas of the 25YEP: Recovering nature and Securing clean, healthy, productive and biologically diverse seas and oceans.

Although the TCIs are yet to ratify the Convention of Biological Diversity, it is under consideration to do so by TCIG and this project will contribute achieving Aichi Targets 1 (Public Awareness), 10 (Vulnerable Ecosystems), 11 (Protected Areas), 14 (Ecosystem Services), and 19 (Knowledge, Science and Technology). UNCLOS 61(2) also requires coastal states to take 'into account the best scientific evidence available to it' in determining conservation and management measures.'

In this reporting round, the DPLUS119 project has progressed the collation of baseline evidence and development of tools that can be used for natural capital assessment and determining ecosystem service flows which have the potential to be built into policy and monitoring/management practices (see **Section 3.1 Output 1 and 2 and evidence in Annex 3**). Following the groundwork which was conducted in Y1 of the project to identify potential indicators and data that could also be used to monitor and manage the state, use or pressures on natural capital assets, the first of the priority indicators (seagrass extent) has now been developed (see **Section 3.1 Output 3 and evidence in Annex 4**).

## **5. OPTIONAL: Consideration of gender equality issues**

It is recognised that both men and women use the marine and coastal environment of the TCIs and so will benefit from the outcomes of this project. Although no community or wider stakeholder events have taken place yet, when planning these, the project team will be mindful of being as inclusive as possible, ensuring events are accessible regardless of gender, age or ability. Events will be planned based on advice from DECR and on-island community representatives, to be held in convenient locations and at times that will be appropriate to reach the maximum number of participants (and where Covid-19 restrictions allow, if they are still in place). This may necessitate holding events at multiple times/locations at times which maybe outside normal working hours and/or enable access for people juggling multiple paid/unpaid duties – e.g. caring duties. Following on from community events, if it is found from the attendance lists that a particular group of society (be it men or women, a specific age group, etc.) has not been adequately represented, the project team will explore options for holding targeted, follow-up engagement to reach these additional groups.

The core project team is of mixed gender, with 65% being women and 35% men. The Project Leader and leads for each Project Partner are women. The Project Advisory Group is 36% women and 64% men.

## **6. Monitoring and evaluation**

Three tools have been developed for the project which are used by the PMG to effectively monitor and govern the project: a Monitoring and Evaluation Plan, Risk Register, and Issues Log (**Annex 6b**). The Project Leader presents updates on each, plus financials, at each PMG meeting (see example PMG meeting agenda, **Annex 6a**). The PMG, which is comprised of representatives from each project partner (JNCC, DECR, SAERI) is jointly responsible for monitoring and steering the project, ensuring it aligns with the project proposal, and that the project is delivered on time and within budget. The PMG also reviews and approves all primary project outputs prior to external release. There have been no major changes or additions to the M&E Plan, Risk Register or Issues Log in this reporting period.

The project logframe (**Annexes 1 and 2**) provides a clear set of Indicators and Outputs against which the project can be monitored and evaluated. Timeframes have been amended (through three Change Requests) for some indicators in the logframe as a result of delays in project start date and challenges presented by the Covid-19 pandemic on international travel. Some indicators and outputs have also been revised in light of these considerations or due to evolution of the project. Progress towards the stated Outcome and Outputs can be clearly cross-referenced with the relevant indicators. As most of the indicators relate to specific markers of progress or end products, they are relatively easy to measure – e.g. number of maps created and provision of access links, reports and guidelines produced, tallies of participants at events (e.g. workshops), results from before and after surveys to gauge levels of increased capacity.

## **7. Lessons learnt**

As for the first reporting period, but which is felt worth reiterating, the following aspects have seen the project continue to make good progress, positioning it well for ongoing success, and would be recommended approaches for other projects where relevant:

- *In-territory Partner*: Having DECR as a lead partner on the project has proved invaluable for i) ensuring the direction of the project and the outputs will be of true value and relevance to the TCIs; ii) providing access to data; iii) helping to liaise and engage relevant DECR staff and other TCIG departments; iv) identifying relevant stakeholders. Prompt responses and regular engagement with the DECR project lead has facilitated good progress with project activities.
- *Engaging closely with other related projects*: Engaging with other projects, especially DPLUS094 and DPLUS108 is enabling early identification of where and how outputs from each can be used to assist the others, avoiding duplication of work, and aligning events/meetings/workshops so as to avoid clashes and participant fatigue. It is anticipated that similar engagement with the new DPLUS153 project that commenced in late 2021 will bring similar benefits.
- *Working with known partners*: The strong, established relationships between all project partners (JNCC, DECR, SAERI) has resulted in good cooperation and smooth operation of the project, and has meant a high-level of enthusiasm for the project has been maintained.
- *Adaptability and flexibility*: Partners and technical teams have also shown adaptability and flexibility in the face of uncertainty and challenges imposed by the Covid-19 pandemic. In particular, understanding the need to reschedule international travel and considering how the capacity building elements can be delivered remotely.
- *Advisory groups*: in this reporting round, the PAG has been engaged to provide expert advice on some WP activities. This is proving very valuable in terms of identifying additional data sources, ensuring outputs will be of value and relevance to end-users, and it is hoped, generating long-term buy-in to the use of products and tools.

Going forward, lessons that have been learnt from challenges encountered in this reporting round, primarily relate to data availability:

- Even though it was not unexpected that there may be some limitations in available data, this has impacted how far along demonstrated outputs could be developed – in such cases expectations have had to be realistically managed.
- The project will include training and guidelines in how to undertake the variety of assessments demonstrated and how to develop and populate indicators. Through this legacy, TCIG will be able to update the assessments and/or develop additional indicators when new data is available.

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

The Y1 Annual Report received an overall rating of 1 and did not contain any specific comments for the project team. Given the difficulties in delivering the KE components of the project in Y1 due to Covid-19 related travel/community engagement restrictions, the reviewer did note that they assumed the team

will have set a deadline for deciding if/when/how the KE programmes will be delivered. This was the case, and as noted in Sections 3, the project has been modified to account for these potentially ongoing challenges by committing to delivering the WP-specific KE programmes via remote means, and holding only one on-island event towards the end of the project.

With regards to any community or stakeholder engagement event, we will also take on board (as evidenced in the text in Section 5) the consideration noted by the reviewer, that women can tend to undertake more unpaid work than men and often responsible for childcare. As such it might be necessary to hold multiple meetings at times and locations that are beneficial to women, as only considering paid working hours when scheduling meetings is unlikely to enable access for women and men.

The Project Partners were very pleased with the positive review which was received for the Y1 Annual Report.

## **9. Other comments on progress not covered elsewhere**

It should be noted that the Project Leader needed to return to Australia on compassionate grounds for the first half of the reporting period (April – October 2021). The Project Leader did continue to work during this period but sometimes at reduced capacity; it also meant that the Project Leader and colleagues in the UK and TCI were working on vastly different time zones. Together these things impacted on the level of ‘face-to-face’ (virtual) communications and presented some challenges in reporting and forward planning. Communication moved primarily to email and the Project Leader joining key calls. Overall this had minimal impact on progress of the technical aspects of the project, however substantial forward planning was not possible until the Project Leader returned to their home base (Falkland Islands) in October. At this point a Change Request was prepared to capture the changes to project activities, timelines and budget that have been referred to other sections of this report and those posed by the ongoing challenge of Covid-19 (see Section 12). Note, LTS were informed of the Project Leader’s situation and how it may impact on the project. LTS were very understanding and supportive, which the Project Leader and Partners were very grateful for. LTS also allowed substantial extensions, particularly to reporting obligations, as required.

On a different note, it is recognised that the Covid-19 outbreak is having a serious effect on global economics. While travel and subsistence costs have been estimated from current prices, these may increase by the time of travel in Y4 of the project. Consequently, it may be necessary to reassess the duration and number of personnel travelling to the TCIs for the planned KE event to stay within budget limitations.

## **10. Sustainability and legacy**

JNCC’s submission to the ‘Safeguarding the environment in British Overseas Territories: call for evidence’ in 2019 highlighted significant problems that compromise the long-term ability of the UKOTs to benefit from DPLUS and other investment in the UKOTs including being limited by capability to maximise use of existing data from prior projects, lack of connectivity between projects and constrained human capacity. The DPLUS119 project was designed to address some of these issues, and the project will implement an innovative capacity-building approach between JNCC and the TCIs, aimed at achieving long-term sustainable management of marine and coastal resources and reducing reliance on external assistance. Building on previous work and existing data, it will establish robust evidence bases and tools to expand understanding of TCIs natural capital to inform future decision-making and management.

It will have a sustained legacy through:

- Primarily using existing data, adding long-term value to previous projects;
- Being closely aligned with the DPLUS094, DPLUS108 and the new DPLUS153 projects to ensure connectivity and maximise benefits from these and other projects;
- Sitting within the wider context of a new long-term TCI Environment Strategy ensuring this and other projects have benefits beyond the short-term duration of the project;

- Provision of significant technical assistance to TCIG. This is of long-term benefit by enhancing on-island skills;
- Establishing long-term environmental monitoring through application of the UK Government 25YEP indicator framework.

As outlined previously (Section 3.1 Output 4), there have been some activities focussed on raising the profile of the project within the TCIs. This has been through the creation of a project webpage, press releases, social media and news articles. There were also been positive responses from the first of the PAG forums held in this reporting period. Further PAG and stakeholder events are planned to be held in Y3, through which we anticipate seeing an elevated profile of the project within the TCIs.

## 11. Darwin identity

There is a good understanding of the Darwin Initiative within the TCIs, with a range of projects having been funded by it over the years.

Wherever possible, the project has publicised the Darwin Initiative, which to date has primarily involved including the logo on any project outputs – e.g. articles and reports (**see links provided in Section 3.1 and Annexes 3 and 4**). It is also included on project documentation (e.g. meeting agendas and minutes; **Annex 3a and 6a**). When posting on social media, we have linked to the Darwin Initiative handles (**see Section 3.1, Activity 4.6**). The project has clearly highlighted that it is funded by the Darwin Initiative in any presentations, which together through the use of the logo on other material, has meant it is clearly recognised as a distinct Darwin Initiative project.

## 12. Impact of COVID-19 on project delivery

The ongoing Covid-19 pandemic has impacted this project in this reporting period in three main ways:

1. Due to restrictions on international travel, it has not been possible for JNCC technical staff to travel to the TCIs to undertake planned KE programmes;
2. Members of the project team have had to juggle competing commitments that have been brought about by the requirement to work from home – e.g. home schooling, caring for family members etc.;
3. A need for continual replanning of the project schedule and budget due to ongoing uncertainties about how Covid-19 may impact on project delivery.

In response, the Project Leader, PMG and WP leads have been working closely together to monitor the situation and adjust the workplan and budget to best suit the known situation at the time. Two Change Requests were submitted and approved in Y1, and a further Change Request which focused on providing some certainty around planned activities, especially the KE components, whilst also ensuring successful delivery within the timeframes and resources available to the project, was submitted and approved in this reporting round. The project will now plan for the WP-specific KE Programmes to be delivered remotely (via various means), DECR to take a larger role in delivering some of the community events, and that (if Covid-19 restrictions allow) a final KE will take place on-island and in-person at the very end of the project (Y4) to showcase the combined outputs from the whole project and provide final capacity building exercises. All Project Partners would be involved with the final event and include JNCC and SAERI technical experts travelling to TCI to join DECR in delivering the event. It is hoped that the Covid-19 situation will be stable enough by this stage of the project to plan for this. These changes also impacted on allocation of budget in each Financial Year, and so the Change Request also included proposed budget changes.

On the whole, the project team has continued to embrace some of the new ways of working, especially the greater use of virtual meetings and workshops. While lessons are still being learned as to the most effective way to use these approaches, the project will continue to employ these tools to progress and deliver aspects of the project, thereby reducing the need to travel and be exposed to current Covid-19 risks.

All project partners are following the advice given by their respective governments and the executive committees/directors of their organisations to ensure the health and safety of all staff and beneficiaries

involved with the project. This has included obeying stay-at-home orders/advice, not undertaking international travel unless absolutely necessary, and regular welfare checks on staff.

### 13. Safeguarding

Please tick this box if any safeguarding violations have occurred during this financial year.

If you have ticked the box, please ensure these are reported to [ODA.safeguarding@defra.gov.uk](mailto:ODA.safeguarding@defra.gov.uk) as indicated in the T&Cs.

As the lead partner, JNCC is committed to creating a safe environment for all staff and those with whom we work. For JNCC, safeguarding means protecting its staff and communities from potential harm from coming into contact with anyone working for, or with us, or from our activities/programmes of work. JNCC's primary safeguarding objective is to do no harm, and we take a zero-tolerance approach to anyone who contravenes our policies.

Safeguarding is a specific risk in the JNCC organisational risk register. JNCC's safeguarding policy makes clear the JNCC policy applies to all partners and contractors. For this project, the partner MoUs: a) incorporate JNCC's Safeguarding Policy or otherwise implement reasonable due diligence and monitoring procedures of its sub-awards consistent with JNCC's Policy; b) include appropriate language requiring contracting entities/individuals, and their employees/volunteers to abide with a Code of Conduct that reflects standards of JNCC's Policy; and c) expressly state that the failure of those entities/individuals to take preventive measures against sexual harassment, exploitation and abuse and child abuse, to investigate and report allegations in a timely manner, or to take corrective actions when breaches have occurred, shall constitute grounds for JNCC to terminate such agreements.

## 14. Project expenditure

**Table 1: Project expenditure during the reporting period (1 April 2021 – 31 March 2022)**

Project spend (indicative) in this financial year	2021/22 D+ Grant (£)	2021/22 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)	██████	██████	██████	Currency conversion fees (GBP to USD for payment from JNCC to DECR)
<b>TOTAL</b>	██████	██████		

The D+ Grant figures in Table 1 (Column 2) are those which were approved in the Change Request submitted in December 2021. In this Change Request, the total grant for the 2021-22 FY was reduced from ██████████. The difference of ██████████ is to be moved to the 2022-23 and 2023-24 FY. This change was requested to primarily reflect replanning of staff time and spend related to the KE programmes required in each FY.

Note, due to the Q1-Q3 Advance Claims having been made based on the original budget for the 2021-22FY, and before the Change Request submitted in December 2021, this means that JNCC have claimed more than the revised budget for 2021-22. LTS have advised that once the Q4 Actuals claim has been submitted, and balance of funds in hand will be used in 2022-23 to offset claims due.

## 15. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

We have opted not to complete this section for this reporting round.

### List of Annexes:

- Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2021-2022
- Annex 2: Project's current logframe
- Annex 3: Evidence for progress against Output 2
- Annex 4: Evidence for progress against Output 3
- Annex 5: Evidence for progress against Output 4
- Annex 6: Evidence for progress against Output 5

## Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the <b>correct template</b> (checking fund, type of report (i.e. Annual or Final), and year) and <b>deleted the blue guidance text</b> before submission?	✓
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	✓
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	✗
<b>Have you included means of verification?</b> You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
<b>Do you have hard copies of material you need to submit with the report?</b> 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	✓
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	