

Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus Half Year Report

Note: If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.

Submission Deadline: 31st October 2023

Project reference	DPLUS180
Project title	Integrating climate change resilience into protected area design and management
Country(ies)/territory(ies)	British Virgin Islands
Lead partner	National Parks Trust of the Virgin Islands
Partner(s)	Environment Systems Limited, Wavehill
Project leader	Nancy Pascoe
Report date and number (e.g. HYR1)	31st October, 2023 - HYR2
Project website/blog/social media	https://www.bvinpt.org/blog/categories/climate-change-and-the-bvi

Outline progress over the last 6 months (April – Sept) against the agreed project implementation timetable (if your project has started less than 6 months ago, please report on the period since start up to end September).

Although we are not looking for specific reporting against your indicators, please use this opportunity to consider the appropriateness of your M&E systems (are your indicators still relevant, can you report against any Standard Indicators, do your assumptions still hold true?). The guidance can be found on the resources page of the relevant fund website.

1.2 Design a scientific rule-base/run the model / online project workshop & iterate the model

The first and second draft model outputs have been created. These were reviewed by the expert technical symposium on August 23rd and feedback was given on the assumptions made, resulting in the model being modified. Additionally, the technical experts shared sources of other data and publications which are being collected by Environment Systems Ltd and the National Parks Trust of the Virgin Islands (NPTVI) to integrate into the model, in order to enhance and improve the modelled outputs.

1.4 Run risk modelling / Undertake opportunity modelling for new protected areas

The first and second draft opportunity models have been modelled. These will be iterated through for a third draft, in light of the new data and information from the expert technical symposium in August 2023 and other meetings in September 2023. Technical experts shared information on topics such as flood risk areas, updated coastal resource data, Caribbean regional climate modelling data, BVI sea turtle research, culturally significant sites, location of filled salt ponds. The Royal Botanic Gardens Kew provided extensive survey data on threatened and native plant species using data collected over twenty-five years of collaboration with NPTVI. JNCC has shared data that was created under a 2023 project to identify areas for targeted reforestation efforts in the BVI, in collaboration with NPTVI and the Ministry of Environment, Natural Resources and Climate Change created under the project, 'Climate change adaptation and hurricane disaster resilience in the Caribbean and Western Atlantic Overseas Territories'.

2.1 Create mock-up of the web-based monitoring platform / Conduct user research within the BVI Government and NGOs / Build the beta version of the web-based platform and test it

Discussions and tests for the data portal have been progressing between the Environment Systems Ltd developers, NPTVI and the BVI Government Town and Country Planning Department who are the lead

agency for the BVI National GIS and Government mapping portal, since July 2023. Transferring both raster and vector data has been tested and this can be pushed and visualised directly onto the existing mapping portal that is hosted on the BVI Government website. The visual design of the web-based platform is ongoing and will continue into the next quarter and is based on project BVI user feedback as gathered by NPTVI.

2.2 Project team to decide key factors of terrestrial and marine environment for habitat condition, visible within the remote sensing data to create remote sensing indicators / Develop and test the remote sensing indicators, through fieldwork

The remote sensing condition indicators are in development. There has been a delay in progress due to the extensive cloud cover over BVI, which is an issue when trying to create fit-for-purpose monthly outputs. To mitigate for this, the temporal extents of the indicators will be expanded to ensure outputs are useable, and with fewer false positives of condition. Relevant outputs from DPLUS160 led by Portsmouth University on mapping BVI soils were identified during the August 2023 technical symposium that would greatly enhance some of the indicators. As DPLUS 160 is running parallel to DPLUS 180 the soil maps will be shared as soon as they are completed, which is anticipated by the next quarter.

NPTVI's fieldwork with Royal Botanic Gardens Kew under DPLUS 084 generated habitat data information from 111 survey sites around the BVI which has been incorporated into this assessment and was not originally planned for in DPLUS 180 project design, so there has been less need for additional fieldwork under DPLUS 180.

2.4 Undertake fieldwork in Prickly Pear and Sandy Cay National Parks, and feedback results to ESL. / Validate the remote sensing indicators, through the latest field surveys, and modify if required.

To validate the remote sensing indicators fieldwork took place at Prickly Pear National Park in June 2023 in parallel with soil surveys undertaken with Portsmouth University under DPLUS 160. Fieldwork is planned at Sandy Cay National Park in the next quarter, as this was restricted due to unfavourable sea conditions. These two sites are only part of the entire Territory that are being used to validate the remote sensing indicators. They were singled out in project design to complement parallel project activities, such as mangrove reforestation that NPTVI is undertaking at these sites.

The remotely sensed radar climate data that Environment Systems Ltd. acquired has been verified using BVI weather station data that has been provided by the BVI Department of Disaster Management, this represents data from 14 different weather stations for five islands. The exact date and time that the remotely sensed radar data was collected was matched to the BVI weather data to check accuracy.

Additionally, NPTVI has historic data from climate loggers deployed in previous projects (DPLUS 084) and under this project. This locally generated data will ensure that the models are using accurate data on temperature and rainfall. New land clearance is being mapped opportunistically as NPTVI are out doing recurrent fieldwork throughout the Territory, so that this can be checked against remotely sensed imagery acquired by Environment Systems Ltd. in order to train the model. Validation data has also been provided by the NPTVI – Royal Botanic Gardens Kew joint habitat fieldwork as reported in Output 2.2 above.

3.1 Online training surgeries for key staff are delivered every month for 2 hours to build capacity in modelling climate change, biodiversity resilience, ecosystem services, and using radar data.

NPTVI meets monthly with Environment Systems Ltd to talk about the progress of the project and to discuss the remote sensing analysis scenarios that NPTVI would like to do, but there has been insufficient time available in the past six months to do the follow-up 'homework'. NPTVI has two GIS technicians, inclusive of the DPLUS 180 project leader, and both are very busy with recurrent and special project work. A proposed solution is to use some of the time when Environment Systems Ltd are in Territory in the last quarter to have in-person training sessions. At this time other Government stakeholders will also be trained in how to integrate use of the web-based climate change monitoring dashboard, focusing on the BVI Government National GIS Committee members who have been engaged in the project since its onset when a project workshop was held in August 2022.

An online technical symposium was held on 23rd August 2023 with nine key international experts who are all currently or just recently involved in biodiversity projects with the BVI including the Royal Society for the Protection of Birds (DPLUS 196), Royal Botanic Gardens Kew (DPLUS 183), UK National Oceanography Centre (DPLUS 152 & 150), Portsmouth University (DPLUS 160), and the Marine Conservation Society (DPLUS 111). A second meeting was held on 26th September 2023 with three experts from US based The Nature Conservancy who are involved in Caribbean regional climate change activities (<https://caribbeanscienceatlas.tnc.org/>) and have collaborated with NPTVI on protected area planning projects over the years. These meetings were extremely useful information-sharing and discussion

sessions that have helped the model design enormously as the feedback will ensure credibility and accuracy.

NPTVI met with the BVI Government Climate Change Committee on 25th September 2023 and gave a presentation on the progress of this DPLUS 180 project and led a discussion on how this can help with the objectives and revision of the BVI Government Climate Change Policy. There are 14 Government agencies represented on this committee, including NPTVI, and it is chaired by the Ministry of Environment, Natural Resources and Climate Change and the Premiers Office. All 14 departments were represented at the meeting and in a follow-up survey that was conducted, completed by 8 of the departments all said that they would use the climate change mapping portal and they provided details on what questions they need to answer in regards to climate change impacts to the BVI, and what data they would like to have available. This provided very useful feedback that will feed into the mapping portal design.

Wavehill, who are leading the project evaluation, produced a mid-term evaluation report in July 2023 based on interviews with the team and a review of project documentation to date. The report is based on the project evaluation framework, which was developed in April 2023 following a Theory of Change workshop and sets out the evaluation questions and methods. The mid-term evaluation report is process – rather than output- and outcome-focussed, with an emphasis on learning points to date. The evaluation found that: “With the lead organisation being on-site in BVI and the Project Manager being a senior level member of staff, there is good control and authority over the project to ensure it progresses well”. It highlighted that the focus moving forward should be on having the environmental monitoring system up and running well in advance of the project end date, noting that it will take some time to ensure it is fit for purpose and reaches the most influential users and decision makers. Users will need training on the system’s functionality and potential and these teams and individuals will need to be identified and (re-)engaged. The evaluation framework will continue to guide the M&E as we move towards the final evaluation activity, to take place from Dec 2023 to Feb 2024 with final reporting in March 2024. The final evaluation will respond to the headline evaluation questions around impact.

Project education and awareness

NPTVI continue to update the online blog created for the DPLUS 180 project and the NPTVI Facebook page. NPTVI is planning a billboard on climate change for display in the capital of Road Town, Tortola for November 2023 in parallel with the annual Arbour Day tree planting celebrations.

NPTVI participated in a climate change communications workshop online on 20th September, 2023 that was coordinated by the International National Trusts Organisation (INTO) and delivered by George Marshall, founder of UK based Climate Outreach and author of ‘Carbon Detox’ and ‘Don’t even think about it: why our brains are wired to ignore climate change’. This workshop assisted NPTVI by providing research and tools on what approaches work best to create messaging about climate change amongst communities. This will assist with the script that is being developed by NPTVI for the climate change digital cartoons that are in production.

2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

The expert meeting during the technical symposium to review the draft outputs was incredibly valuable, and well worth the wait. As well as reviewing the outputs, the project team were made aware of other useful data held by various organisations that could be incorporated into the model. Rather than amend the models with just the knowledge gained, it was considered worthwhile to wait for the new data and incorporate these into the models, to ensure a better output. As some of the data will come from Darwin Plus projects that are running parallel to this one, this means incorporating data in the third quarter.

NPTVI staff time availability for the GIS case study work / GIS surgeries has been very limited due to unforeseen work-related activities. As such, the initial scale of work involved during project planning has been trimmed down to a more reasonable extent. This was meant to be separate training to refresh skills learnt during a previous Darwin Plus 081 project and does not detract from the training that is slated in person for using the climate change web-based dashboard in the last quarter of the project.

When the project was being drafted it was anticipated that fieldwork would be required to validate the remote sensing imagery. However, as NPTVI is involved in multiple other Darwin Plus projects that were either just finalising results or also applying to Darwin Plus for funding at the same time and have since been approved, it has resulted in the projects being very complimentary to each other and the fieldwork assisting multiple projects, including this one removing the need for additional fieldwork under DPLUS 180. The August 2023 technical symposium confirmed this as even more data was shared from other

BVI Darwin Plus projects. This has resulted in a projected underspend in travel and subsistence, plus staff fieldwork time.

3. Have any of these issues been discussed with NIRAS and if so, have changes been made to the original agreement?

Discussed with NIRAS: Yes/No

Formal Change Request submitted: Yes/No

Received confirmation of change acceptance Yes/No *Not applicable*

Change request reference if known:

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2023 – 30 September 2023)

Actual spend: ██████████

4b. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this financial year (ending 31 March 2024)?

Yes No Estimated underspend: ██████████

4c. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a re-budget Change Request as soon as possible. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes if necessary. Please DO NOT send these in the same email as your report.

NB: if you expect an underspend, do not claim anything more than you expect to spend this financial year.

5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?

The DPLUS 180 Year 1 annual report review was not received until August 2023, so the feedback on project activities was not available until then. NPTVI and Environment Systems Ltd met to go over the feedback in order to address the comments made. The reviewer suggested that project management systems should be strengthened to avoid delays in activities, following NPTVI's report of two activities being delayed. This has been addressed by NPTVI and Environment Systems Ltd in the setting of more rigorous deadlines for data sharing, and more feedback from Wavehill in project reporting, as it was realised that these issues could have been explained better in the annual report.

NPTVI did not report against the Darwin Plus Standard Indicators as this was not a requirement at the time DPLUS 180 was drafted and it is a very lengthy and time-consuming process that was not factored into the implementation plan, also considering the other recurrent work activities that the NPTVI project leader is committed to and other Darwin Plus projects the NPTVI project leader is involved in. NPTVI recognises the benefit of reporting against standard indicators and will ensure this is integrated into the final report to Darwin Plus, setting aside sufficient time in the final quarter of DPLUS 180 to do this.

The Darwin Plus Risk Register is being used to identify risks as they arise, with the one main one so far being NPTVI taking a longer than expected time to validate a GIS habitat data layer as there were more edits than anticipated and more time was needed to correct these. The wait time for this habitat layer then delayed Environment Systems Ltd from performing a next step as per the implementation timetable.

This has been resolved and both activities completed, with the lesson learnt to set hard deadlines and prioritise additional time needed when delays have knock-on effects, but at the end of the day the final habitat map was more accurate and fit for its intended purpose.

If you are a new project and you received feedback comments that requested a response, or if your Annual Report Review asked you to provide a response with your next half year report, please attach your response to this document.

All new projects (excluding Darwin Plus Fellowships and IWT Challenge Fund Evidence projects) should submit their Risk Register with this report if they have not already done so.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also be raised with NIRAS through a Change Request. **Please DO NOT send these in the same email.****

Please send your **completed report by email** to BCF-Reports@niras.com. The report should be between 2-3 pages maximum. **Please state your project reference number, followed by the specific fund in the header of your email message e.g. Subject: 29-001 Darwin Initiative Half Year Report**