

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	DPLUS160
Project title	Multi-Purpose Soil Survey: informing environmental management and climate change mitigation
Country/territory	British Virgin Islands
Lead partner	University of Portsmouth, UK
Partner(s)	BVI Government: Department of Disaster Management; Land Survey; Agriculture & Fisheries; Environmental Health; Town & Country Planning; and the Ministry of Natural Resources, Labour & Migration; BVI National Parks Trust; and also the H. Lavetty Stout Community College (HLSCC).
Project leader	Prof. Richard Teeuw, University of Portsmouth
Report date and number	31 October, 2023; HYR2
Project website/blog/social media	https://www.facebook.com/profile.php?id=100087320503724

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).

The past 6 months of the project have gone well. Prof Teeuw, Dr Tatari (soil engineering) and Dr Rumble (soil biodiversity) visited the BVI during June 2023 for fieldwork, laboratory work and training workshops.

1.2. Soil survey, sampling and Soil Lab analyses, from Q4 of 2022 to Q3 of 2023
 - completed: *all scheduled soil samples have been collected and analysed.*

Soil sampling was completed of the one large BVI island that had not yet been surveyed (Anegada – sea conditions are optimal in June), with those samples then analysed in the soil laboratory established by the project at the HL Stoutt Community College (HLSCC), Tortola.

1.3. Soil inventory, GIS database and maps, from Q3 of 2022 to Q4 of 2023
 - ongoing and on-track: data from the soil survey and soil analyses have been added to the BVI soil inventory spreadsheet, which is now being converted into an attribute table for the Soil GIS.

PI Teeuw has been liaising with researchers on another BVI Darwin Plus project (DP-180), who are examining climate change resilience in protected areas. The DP-180 project's lead organisation for geospatial analysis, Environmental Systems Ltd, organised an online meeting on August 23rd 2023 to discuss their research on 'BVI Climate Change Modelling', which the geoinformatics experts from this project (Argyriou & Teeuw) participated in. Consequently, some of the GIS-generated BVI terrain datasets from this project (DP-160), derived from geomorphometric analysis of the Lidar DEM (e.g. Topographic Wetness Index, Stream Power Ratio) have been shared with the researchers of DP-180.

1.4 Review of predictive accuracy: relative variance of each mapped soil type, by Jan 2024.
- ongoing and on track: awaiting the Soil GIS being fully functional in Dec 2023.

1.5. Four soil-based thematic maps, with explanatory documents: BVI Soil Types, and Soil Suitability for: (i) Farming, (ii) Construction, and (iii) Waste Management, by January 2024.
- ongoing and on track: awaiting the Soil GIS being fully functional in Dec 2023.

1.6. Soil Laboratory and Soil Sampling equipment used by the Laverty Stoutt Community College for teaching of Soil science and its applications, by Jan 2024.
- completed: the Soil Lab is now being used by HLSCC for the teaching of Soil Science.

2.1. Training in soil survey, soil sampling and soil analysis: two 'hands-on'; workshops, with supporting online training materials, by February 2023.
- completed: the workshops run by Dr Rumble and Dr Tatari had to be delayed from February to June 2023 because of UoP/UWE staff availability issues, but those workshops were run successfully in June 2023. The HL Stoutt Community College hosted the two 1-day training workshops:

- Soil Engineering, run by Dr Tatari on June 15th 2023 (18 participants 10 male, 8 female);
- Soil Biodiversity, run by Dr Rumble on June 28th 2023 (22 participants: 12 female, 10 male).

2.2 Training in soil database management and GIS usage for mapping and climate change impact assessment: a hands-on'; workshop, augmented by online training materials, by January 2024
- pending: on track, awaiting completion of the BVI Soil GIS in Dec 2023.

2.3 Training on analysis-ready soil maps & briefing documents, for environmental managers and policy makers: two online workshops, by January 2024.
- pending: on track, awaiting completion of the BVI Soil GIS in Dec 2023.

2.4. *Learning outcomes from each technical training workshop applied within the participating organisations, by March 2024.*
- pending: on track, awaiting completion of the BVI Soil GIS in Dec 2023 and the training in January 2024.

3.1 Key soil survey findings used to inform policy: for each of the project partners, the project will produce a briefing document, by January 2024.
- pending: on track, awaiting completion of the BVI Soil GIS in Dec 2023.

3.2 Report on BVI Soils, their land use suitability, the risks associated with each soil type and recommendations for climate change adaptation, by Feb 2024.
- pending: on track, awaiting completion of the BVI Soil GIS in Dec 2023.

3.3. The BVI procedures for risk assessment of new developments will be adjusted to include inputs from the soil survey guidelines on land use suitability and the Soil GIS maps, by March 2024.
- pending: on track, awaiting completion of the BVI Soil GIS in Dec 2023.

3.4. Public-access version of the Soil GIS and user guides, hosted by the BVI Government NGIS website and the Laverty Stoutt Community College, by March 2024.
- pending: on track, awaiting completion of the BVI Soil GIS in Dec 2023.

3.5. Press releases, to raise public awareness about the importance of soils:
(i) Sept 2022 (completed)
(ii) March 2023 (completed);
(iii) Sept 2023 (overdue, but awaiting completion of the BVI Soil GIS in Dec 2023);
(iv) March 2024 (pending, on track, awaiting Jan 2024 BVI Soil GIS training).

3.6 Scientific articles, about: (i) BVI soil types; (ii) multi-purpose thematic soil maps; (iii) links between geodiversity, soil types & biodiversity, submitted to Open Access, peer-reviewed journals by March 2024
- pending: on track, awaiting completion of the BVI Soil GIS in Dec 2023.

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.

In the past 6 months there have not been any notable problems.

There was one unexpected development, with one of the UoP team (Dr Heather Rumble) taking up a new job at the University of the West of England (UWE). A Change Request form was duly completed and approved, with the funding for Dr Rumble's time in the project transferred from UoP to UWE. Dr Rumble's move from UoP to UWE had no impact on the project: she joined Prof Teeuw for the June 2023 BVI visit, running the soil microbiota and soil biodiversity component of the project.

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

Formal Change Request submitted: Yes

Received confirmation of change acceptance Yes

Change request reference if known: : CR ref. N00017

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.

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

No

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**