Darwin Plus:
Overseas Territories Environment and Climate Fund
Annual Report

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

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

Submission Deadline: 30th April 2023

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

Darwin Plus Project Information

Project reference	DPLUS142
Project title	Bathymetry, and seafloor habitats within Ascension Island's nearshore waters
Territory(ies)	Ascension
Lead Partner	British Geological Survey
Project partner(s)	Ascension Island Government (AIG), United Kingdom Hydrographic Office (UKHO)
Darwin Plus grant value	239,614
Start/end dates of project	April 22, End March 24
Reporting period (e.g. Apr 2022-Mar 2023) and number (e.g. Annual Report 1, 2)	April 22 – March 23
Project Leader name	Rhys Cooper
Project website/blog/social media	www.bgs.ac.uk
Report author(s) and date	Rhys Cooper 27/04/23

1. Project summary

The nearshore habitats of the Ascension Island Marine Protected Area (AI-MPA) comprise high biodiversity and are most at risk from anthropogenic development and climate change. This project will determine the character, distribution, and extent of these key habitats through an integrated programme of hydrographic and ground-truthing surveys. Resulting seafloor habitat maps will provide urgently needed tools to better monitor and protect marine ecosystems, and underpin the evidence-based management of the AI-MPA.

2. Project stakeholders/partners

The first year of this project will undertake a logistically difficult marine survey around Ascension – this has been subject to continual delays due to covid, availability of flights and accommodation.

In October 21, a UK Navy survey ship the HMS Protector surveyed the shelf around Ascension. This area is coincident with the survey extent originally proposed by BGS. We had no prior knowledge of the Navy planning to go to Ascension.

The UKHO have now supplied the data from the HMS Prospector (received Dec/Jan 23). BGS have reprocessed this data and created backscatter maps suitable for the creation of preliminary substrate maps.

This initial work will also determine the extent & type of fieldwork required to fulfil the deliverables stated in proposal. The Royal Navy survey data has significantly reduced the extent of bathymetric data required and will allow us to spend more time on focussed 'ground-truthing' and high resolution, detailed surveys which will vastly improve the final mapping outputs (seabed substrates & habitats, marine geohazards etc.).

We have now started to plan the first survey season with the Ascension Island Government (AIG). This is due to commence October 23 – which is the first available option for their boat. It will also coincide with the reopening of the full runway and air bridge to Falklands making logistics a lot easier.

BGS has also supplied AIG with a version of the bathymetry data that proved vital for a shark research team in deploying seafloor sensors. The research was also carried out under Darwin/Defra funding.

3. Project progress

This project has been severely delayed due to COVID, the availability of suitable survey boat on Ascension and the collection of new survey data by HMS Prospector (see submitted and approved change requests).

The project start date has been delayed by almost 2 yrs, but in terms of project lifecycle we expect to complete within the approved project extension deadline.

We are at the start of the project and this report only concerns the initial outputs and activities as detailed in the log frame –

1. Output: Seafloor Surveys
2. Activities: 1.1 – 1.2 Marine Surveys

See Appendix 1-2 for more detail.

3.1 Progress in carrying out project Activities

1.1 We have now assessed the HMS Royal Navy Prospector survey data.

Reprocessing data into higher resolution bathymetry & suitable backscatter grids. We have assessed and indicated areas for resurvey & higher resolution coverage.

1.2 Acoustic data – The Royal Navy data covers over 70% of nearshore area. The BGS survey campaign will target data gaps and areas of interest, adding value and detail to the original survey, allowing better geological interpretation.

This initial survey data will also allow us to target & refine our ground-truthing campaign – looking at areas of obvious sediment change in backscatter or features of interest.

1.2 A version of the high-quality MBES hydrographic data collected by the Royal Navy has already been processed and delivered to AIGCFD. This data will be improved with subsequent surveys. To be supplied to both AIG & UKHO.

Still to be completed:

1.3 Ground-truthing data classified and delivered to AIGCFD (Year 2, Q2);

1.4 Processed hydrographic data delivered to UKHO and data repository (Year 2 Q3);

Activities 2-3

3.2 Progress towards project Outputs

We are only at the start of this project, but we are on schedule and the new Royal Navy data has provided a valuable addition to project.

Activities 1.1-1.2 are almost complete but will be supplemented and improved with additional survey data.

See attached Appendix

3.3 Progress towards the project Outcome

A UK Navy survey ship, the HMS Protector surveyed the shelf around Ascension (October 21). We waited for this data to be delivered by UKHO to ensure no area is duplicated and that the quality of bathymetric and backscatter are suitable for project outputs.

Analysis of the data is also allowing us to plan the required ground-truthing campaign and identify areas of interest prior to fieldwork.

This newly acquired survey data has allowed us to significantly de-risk the project and allowed us to reduce the total amount of funding requested and expand the total extent of mapping.

The project start date has been delayed by almost 2 yrs (covid), but in terms of project lifecycle we expect to complete within the approved project extension deadline.

We are in constant contact with AIG to ensure we maximise our time on island and deliver the expected geological and habitat maps, required by the Department of Conservation for mapping and monitoring the marine environment.

The current indicators are adequate for measuring the intended outcomes.

We have already supplied AIG with a version of the Royal Navy bathymetric data suitable for their use.

We work to the same bathymetric standards required for charting as the UKHO and any data collected will be open source and freely accessible to all.

Assuming no more travel delays, equipment malfunctions or periods of extended bad weather we are extremely confident we will meet all desired outcomes.

The resumption of direct flights to Ascension and AIGs purchase of a new survey vessel will also ease survey planning, logistics and help resolve any potential issues.

This project will provide bathymetric data to the United Kingdom Hydrographic Office (UKHO). It is their intention to install a tide gauge on Ascension that will enhance the quality and reliability of the data collected (both the BGS & Royal Navy survey). The installation of this gauge has also been subject to continued delays due to covid and the extra time will allow for its installation.

3.4 Monitoring of assumptions

Note: I have merged assumptions from log frame for ease of reporting/remove duplication. We are still at the start of project.

<u>Assumptions (Data quality - 1.1, 2.1)</u>

The data collected by Royal Navy and processed, validated and supplied by the UKHO is of excellent quality and has been suitable for use by BGS and AIG.

We now have over 70% of the AIG continental shelf covered by bathymetric and backscatter data suitable for project outputs. The analysis of this data will also allow us to plan our ground-truthing campaign and identify areas of interest prior to fieldwork. This survey data allows us to significantly de-risk the project.

Any additional data we collect will be of higher resolution (same formats) and add value.

Assumptions 2 (suitable survey equipment & vessel)

Ascension Island Government have purchased a new RIB suitable for our marine survey. This boat is also not available for use until October 2023, but will be free of charge (fuel only) and its use is controlled by project partner AIG.

The use of this RIB required a rethink in how we deploy our survey equipment. A suitable, robust and safe solution has been found & purchased. Lead Surveyor Rhys Cooper has undertaken training in operation. We are also working on a framework/hire agreement with Kongsberg to have a standby multibeam system available if required.

Assumptions 3 (Weather and Travel delays)

Previous delays and subsequent change request were fortuitous as it allowed more time for covid recovery and to allow for the unforeseen Royal Navy survey data to be processed and assimilated.

There was no availability on flights or accommodation last FY. Flights have been limited due to the ongoing work on runway and the construction crew used lots of accommodation.

Ascension Island Government (AIG) no longer require 10 days COVID related isolation on arrival – removed Aug 2022. This relaxation of rules will allow more effective deployment of staff.

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

This project is still at the early stages, but we have already been able to supply AIG with a version of the bathymetry data that proved vital for a shark research team in deploying seafloor sensors. The research was also carried out under Darwin/Defra funding.

5. Gender equality and social inclusion

Please quantify the proportion of women on the Project Board[1].	BGS Project Board – 1 man, 1 women
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women[2].	BGS team – 1 man, 2 women AIG team – 2 women

6. Monitoring and evaluation

Royal Navy survey data assessed using industry standard and coincident marine survey processing software.

Project Lead is a Chartered Marine Scientist and Member of IMAREST. He holds an International Hydrographic Organization (IHO) Category A survey qualification which allows him to assess and sign-off data suitable for charting, validated against the various recognised IHO standards.

The bathymetry data is currently being used to create preliminary substrate maps and can be integrated into the various mapping applications BGS uses.

There have been no changes to the M&E plan since the proposal was written and subsequent change requests.

We share all work and project planning information with AIG and UKHO.

7. Lessons learnt

The project has not progressed enough to warrant a full lessons-learnt appraisal.

The delays to project, post covid, have been fortuitous (see above) and allowed inherent efficiencies.

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

N/A - first year of project.

9. Risk Management

We have constantly adapted this project to allow for the new survey data, covid delays, runway maintenance, availability of accommodation and to utilise the new AIG survey vessel.

BGS will create a Risk Register this year.

We already have the AIG Risk Assessment for small boat operation, but this will be expanded to include use of existing multibeam system and chosen seafloor sampling technique.

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

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

Significant risk factors to this project are the use of a new multibeam mounting system on a small nearshore, 8 m inflatable RIB and the impact of weather/sea state.

1) Survey vessel - multibeam mounting system

Research has been undertaken to ensure we can reduce delays, improve safety and minimise data errors that could have resulted from inadequate vessel mobilisation. We have purchased a robust and repeatable mounting system from a known manufacturer (USB) who work closely with Kongsberg (manufacturers of our multibeam system).

We have already received training and seen it in operation. It is also used regularly by the US Navy. However, prior to shipping the equipment to Ascension, BGS will undertake a warm-up survey on a similar sized RIB in the Firth of Forth, Scotland. Here we will be able to test viability of the equipment and gain familiarity in use/further develop risk assessments for safe operation in Ascension. We will also be able to assess the weather window for safe and viable operation in a known area. Should this warm-up survey prove unsatisfactory in terms of data quality and/or safety of operation BGS will pull out of the multibeam survey, submit a change request and concentrate on mapping the existing data and required sampling survey. AIG already have a drop video camera in constant use so a seafloor ground-truth campaign can still be undertaken. This is a worst-case scenario and unlikely due to quality of the equipment purchased.

2) Weather conditions/sea state

Ascension Island is in a very remote and exposed location. Weather conditions will play a part in the amount and quality of data collected. This is the same for any marine survey operation, however, more accentuated due to potential size of swell and limiting size of a small survey vessel. The increased frequency & reduced cost of flights will allow us to spread the risk by having two separate survey seasons at slightly different periods of the year (October & January) – hopefully missing the worst known weather patterns.

3) Further mitigation.

- Regular communication with Ascension Island Government over vessel, flight and accommodation requests.
- Regular discussion with United Kingdom Hydrographic Office on tide gauge installation, their plans and future use of data.
- Project Manager in constant discussion over changes in survey platform and modifications required to enable its use.

10. Other comments on progress not covered elsewhere

N/A

11. Sustainability and legacy

- BGS has supplied AIG with a version of the bathymetry data that proved vital for a shark research team in deploying seafloor sensors. The research was also carried out under Darwin/Defra funding.
- Staff at the Department of Conservation AIG have expressed keen interest in getting training and being actively involved in proposed multibeam survey.
- AIG staff and equipment will be heavily involved in ground truth survey – we will be using their new dropdown camera capabilities.

12. Darwin Plus identity

Outreach activities such as blogs, twitter and video reports will commence during first survey season.

13. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?		No
Have any concerns been investigated in the past 12 months		No
Does your project have a Safeguarding focal point?	Yes	
Has the focal point attended any formal training in the last 12 months?	No [*If yes, please provide date and details of training*]	
What proportion (and number) of project staff have received formal training on Safeguarding?		Past: % [and number] Planned: % [and number]
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. **No**		
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify. No		

14. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2022 – 31 March 2023)

Project spend (indicative) in this financial year	2022/23 D+ Grant (£)	2022/23 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs	[redacted]			
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others (Please specify)				
TOTAL	**41,331**	**38,110.77**	**8%**	**Surplus funds carried ove into next FY**

Table 2: Project mobilising of matched funding during the reporting period (1 April 2022 – 31 March 2023)

	Matched funding secured to date	Total matched funding expected by end of project
Matched funding leveraged by the partners to deliver the project.	[redacted]	
Total additional finance mobilised by new activities building on evidence, best practices and project (£)		

15. OPTIONAL: Outstanding achievements or progress of your project so far (300-400 words maximum). This section may be used for publicity purposes

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

N/A at these early stages

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
				Yes / No
				Yes / No
				Yes / No
				Yes / No
				Yes / No

Annex 1: Report of progress and achievements against logframe for Financial Year 2022-2023 – if applicable

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
Impact There is a step-change in our understanding of the biodiversity and geodiversity of the nearshore Ascension Marine Protected Area providing a baseline to underpin future ecosystem assessment, monitoring, and development.		Royal Navy multibeam survey data acquired and processed (bathymetry and backscatter) into formats suitable for geological mapping. Extent of planned mapping increased to allow and & benefit from additional data & coverage Preliminary substrate mapping started (March 23) Version of Royal Navy data already supplied to AIG Conservation Department – aided in deployment of monitors for Darwin shark research team Purchased a new multibeam survey mount for use on AIG owned and operated RIB survey vessel	1) Plan & undertake trial survey in Firth of Forth 2) Plan and undertake two survey campaigns on Ascension (Oct 23, Jan 24) 3) Finalise preliminary substrate map. 4) Undertake seafloor ground-truth survey – locations determined by 3) 5) Create substrate and habitat maps
Outcome Ascension Island Government have significantly enhanced information on geodiversity and biodiversity to successfully support management and monitoring of the MPA. Geospatial data products will provide value long-after completion of the project.	0.1 At least 70% of the AI-MPA nearshore area (60 km²; 0-100m depth) is surveyed and mapped with particular emphasis on priority area along west coast, ensuring comprehensive characterisation of nearshore environment (Year 1 Q4); 0.2 Project outputs regularly employed by MPA managers for ecosystem assessment and	0.1 Almost complete – the Royal Navy survey has provided extensive coverage of nearshore waters <100m, extending out to depths greater than 3000m. There are still data gaps and areas of interest not surveyed. Appendix 4.1 0.2 N/A – Too early in project lifecycle	0.1 Plan and undertake two survey campaigns on Ascension (Oct 23, Jan 24) 0.2 Create habitat and substrate maps 0.3 Supply industry standard data to UKHO on completion of 0.1

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
	monitoring purposes (From Year 2, Q4); 0.3 Bathymetry data will be supplied to the UKHO as significant contribution towards navigational charting (Year 2 Q3)	0.3 N/A - Too early in project lifecycle	
Output 1. Seafloor Surveys	1.1 Assess Royal Navy Prospector Survey data – reprocess into suitable backscatter and bathymetric products for marine geological mappning. Assess and indicate areas for resurvey/high definition coverage. 1.2 Acoustic (at least 70% of nearshore area) and ground-truthing (at least 30 sites) surveys conducted (completed by Year 1 Q4); 1.2 High-quality MBES hydrographic data processed and delivered to AIGCFD (Year 2 Q 1); 1.3 Ground-truthing data classified and delivered to AIGCFD (Year 2, Q2); 1.4 Processed hydrographic data delivered to UKHO and data repository (Year 2 Q3);	1.1 Complete – great quality survey allowing us to expand mapping area and concentrate subsequent survey on areas of interest (higher resolution/water column data etc.) and fill gaps/data holidays/quality issues. Preliminary substrate mapping has commenced using this data Appendix 4.1 1.2 Partly complete – first survey season Oct 23 1.2 Partly complete – Royal Navy data delivered to AIG Jan/Feb 2023. 1.3 To be undertaken 1.4 To be undertaken	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
Activities 1.1 Assess Royal Navy Prospector Survey data – reprocess into suitable backscatter and bathymetric products for marine geological mappning. Assess and indicate areas for resurvey/high-definition coverage.		1.1 Complete (see Appendix 4.1)	None
Activity 1.2, NOT APPLICABLE – yet to be undertaken – all other activities to be carried out this FY			
Output 2. (Insert **agreed** output)	(Insert **agreed** Output level indicators)	(Report against the indicators on progress towards achieving the Output)	
Activity 2.1.			
Activity 2.2. Etc.			
Output 3. Etc.			

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

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
Impact: There is a step-change in our understanding of the biodiversity and geodiversity of the nearshore Ascension Marine Protected Area providing a baseline to underpin future ecosystem assessment, monitoring, and development.			
Outcome: Ascension Island Government have significantly enhanced information on geodiversity and biodiversity to successfully support management and monitoring of the MPA. Geospatial data products will provide value long-after completion of the project.	0.3 At least 70% of the AI-MPA nearshore area (60 km²; 0-100m depth) is surveyed and mapped with particular emphasis on priority area along west coast, ensuring comprehensive characterisation of nearshore environment (Year 1 Q4); 0.4 Project outputs regularly employed by MPA managers for ecosystem assessment and monitoring purposes (From Year 2, Q4); 0.3 Bathymetry data will be supplied to the UKHO as significant contribution towards navigational charting (Year 2 Q3)	0.1 Survey Completion report produced and approved by AIGCFD; 0.2 Project outputs received and incorporated into the AI-MPA Monitoring and Research Strategy; Project outputs cited within MPA management reporting; 0.3 Data meet IHO standards, and are made available to the UKHO.	Weather and sea conditons allow surveys to be undertaken successfully and in a timely manner. All travel for fieldwork is permitted as per FCO guidelines. Mitigation Sufficient time built into survey schedule to allow for delays. Flexible survey plan allows sheltered areas to be prioritised to reduce lost days. Project not due to start until September 2021 when travel restrictions predicted to have eased.
Outputs: **1.** Seafloor Surveys	1.1 Assess Royal Navy Prospector Survey data – reprocess into suitable backscatter and bathymetric products for marine geological mappning. Assess and indicate areas for resurvey/high definition coverage. 1.2 Acoustic (at least 70% of nearshore area) and ground-	1.1 Completed and suitable bathymetric & backscatter data layers from Royal Navy data. 1.2 Brief 'Survey Completion' report issued including: areas mapped, description of data acquired and data quality, number of ground-truth samples, preliminary figures of data acquired);	1.1 Data is collected that is fit for purpose and can be processed into a suitable format 1.2 Local vessel secured (multiple options on island), workable weather conditions (survey in sheltered areas where possible), timely shipment of survey equipment and personnel;

	truthing (at least 30 sites) surveys conducted (completed by Year 1 Q4); 1.2 High-quality MBES hydrographic data processed and delivered to AIGCFD (Year 2 Q 1); 1.3 Ground-truthing data classified and delivered to AIGCFD (Year 2, Q2); 1.4 Processed hydrographic data delivered to UKHO and data repository (Year 2 Q3);	1.2 Processed data meet IHO charting standards, and received by AIGCFD; 1.3 Classified data received by AIGCFD in usable formats, e.g. spreadsheets, and within GIS database; 1.4 Receipt of data by UKHO and data repository;	1.2 Hydrographic survey equipment functioning properly (equipment tested in advance) ; surveyors have suitable hydrographic certification (BGS has qualified personnel); 1.3 Drop frame camera and other ground-truthing equipment functioning properly (equipment tested in advance); survey personnel have suitable training and experience for data acquisition (BGS has qualified personnel); 1.4 UKHO want, and require data (BGS and UKHO have active dialogue about project and deliverables).
2. Seafloor Substrate and Habitat Maps delivered to AIG and applied to management	2.1 Classified seafloor substrate maps completed, at least including Hard Substrates and Seafloor Sediment Composition. Further outputs include geomorphology and sediment mobility indicators (Year 2 Q2); 2.2 Seafloor habitat maps: classified with reference to seafloor morphology, hardness, composition, and biological cover (Year 2 Q3); 2.3 Map products delivered via GIS project and database (including processed acoustic	2.1 AIG in receipt of substrate maps; Maps included in final project report, and incorporated into GIS deliverables; 2.2 AIG in receipt of habitat maps; Maps included in final project report, and incorporated into GIS deliverables. 2.3 Maps used in at least two MPA management decisions by Y2 Q3	2.1 & 2.2 Survey data are of suitable quality; Project staff have suitable training and expertise (BGS has numerous staff with suitable qualifications). AIGCFD are able to use project outputs for MPA management and monitoring, and potential future developments (Data formats specified/agreed early in project to ensure that AIG and local stakeholders can access all outputs);

	data, ground-truthing locations and classification, interpreted substrate layers, and habitat map). Content and formats agreed with AIG (delivered Year 2 Q3) 2.4 Final Project Report: Describes survey, data acquired, analysis methods, observations and key findings, and recommendations on applicability of map products. Report to include high-quality figures of underlying data and habitat maps .(Year 2 Q4)		
3. Knowledge Transfer and Project Dissemination	3.1 Communication Plan created in consultation with AIG (Year 1 Q3); 3.2 Science communication to public, including at least two educational outreach activities on AI, and at least one article published in gray literature (e.g. Darwin newsletter) (completed by Year 2, Q4); 3.3 Minimum 1 peer-review paper submitted to scientific journal (Year 2 Q4); 3.4 Geospatial products uploaded to accredited data archive centre. (Yr 2 Q4)	3.1 Communication plan agreed between project partners. Knowledge exchange activities included as appendices in final project report; 3.2 Verification may include presentations, published articles, photographs, teacher feedback and examples of children's work; 3.3 Journal confirmation email(s); 3.4. Upload notification from data archive centre.	3.1 & 3.2 Ability to reach local stakeholders. (Project partners AIG are part of local government and have established network on island); 3.3 Project findings hold sufficient scientific interest to warrant peer-reviewed study (Proposed surveys will identify features offshore relevant to seafloor habitats and volcanic environments for the first time); 3.4 Suitable geospatial data archive identified (several candidate domestic and international data repositories, e.g MEDIN).

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)
1 Marine Survey - Year one, Q1 onwards (2023/2025)-
Activity contributing to outputs 1.1 – 1.4
Hydrographic acoustic survey and ground-truthing campaign.

1.1 Assess Royal Navy Prospector Survey data – reprocess into suitable backscatter and bathymetric products for marine geological mappning. Assess and indicate areas for resurvey/high definition coverage.
1.2 Acquire continuous high-resolution (≤ 5m resolution) multibeam echosounder (MBES) bathymetry (water depth) and backscatter data (proxy for seafloor composition and hardness) within the nearshore waters around Ascension Island (< 100m depth)). Utilise BGS's portable MBES system (Kongsberg EM2040P) aboard a locally-contracted vessel. This system is very well suited to undertaking cost-effective survey in this remote environment. Acquisition conducted according to habitat priority areas;
1.3 Deploy drop-camera system from locally-contracted vessel to provide point-source ground-truth samples of seafloor habitat types;
1.1 – 1.4 Process MBES bathymetry and backscatter data to IHO charting standards;

2 Seafloor Substrate and Habitat Mapping – Year 1-2 (2023-2025): Activity contributing to outputs 2.1 - 2.3
2.1 Seafloor mapping
2.1.1 Substrates. Apply geospatial analysis to characterise seafloor morphology and composition using a range of quantitative and qualitative methodologies;
2.1.2 Use bathymetric derivatives, together with backscatter data and ground-truthing observations to model distribution of hard substrates (important predictor of benthic habitat character) and sediment composition;
2.1.3 Produce further classified maps indicative of seafloor processes (e.g. seafloor geomorphology, sediment thickness and mobility);
2.2 Seafloor Habitats:
2.2.1 Analyse and classify ground-truthing imagery;
2.2.2 Incorporate existing data within nearshore, and deeper, environments;
2.2.3 Produce final seafloor habitat maps (attributed according to morphology, hardness, composition, and biological cover);
2.3 Project delivery via GIS database, project reports and maps, and stakeholder engagement;
2.3.1 Supply seafloor data, and classified map products of seafloor substrate and habitats;
2.3.2 Prepare raw and processed data for project partners, stakeholders, and relevant data repositories to ensure long-term application of the data;

2.4 Final Report Prepare report(s) in collaboration with AIG detailing the survey campaign, acquired data, and methodologies employed. The project report will also describe key observations and potential discoveries, as well as emphasise the applicability and impact of the data and map outputs;

3 Knowledge Transfer and Project Dissemination: Activity contributing to outputs 3.1 - 3.4

3.1 Communication Plan developed early Y1 to include not only formal reporting but also social media engagement, academic outputs and grey literature. The Communications Plan will be a living document, updated regularly at Project Board meetings. 3.2 Project partners will actively communicate (e.g. public presentations) with AIG and local stakeholders to highlight the need, interest and value, and findings from the habitat mapping 3.3 Publish at least 1 peer reviewed paper 3.4 Ensure dissemination via appropriate data archive centres. MEDIN, EMODnet etc.

Annex 3: Standard Indicators

The introduction of Standard Indicators was after this projects design and subsequent award. We will review our indicators from appendix 1& 2 against the Standard Indicators and report against as many as is feasible as the project commences. We will adapt to these during course of this FY.

The project is at the early stages and doesn't have enough deliverables to make this appropriate

Table 1 Project Standard Indicators

The introduction of Standard Indicators was after this projects design and subsequent award. We will review our indicators from appendix 1& 2 against the Standard Indicators and report against as many as is feasible as the project commences. We will adapt to these during course of this FY.
The project is at the early stages and doesn't have enough deliverables to make this appropriate

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
E.g. DPLUS-A01	E.g. People who attended training on CBD Reporting Standards	E.g. Number of officials from national Department of Environment who attended training on CBD Reporting Standards	People	Men	20			20	60
E.g. DPLUS-C17	E.g. Articles published by members of the project team	E.g. Number of unique papers published in peer reviewed journals	Number	None	1			1	4

Table 2 Publications

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

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the **correct template** (checking fund, type of report (i.e. Annual or Final), and year) and **deleted the blue guidance text** before submission?	*
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	*
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	*
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	*
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	*
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 15)?	
Have you involved your partners in preparation of the report and named the main contributors	*
Have you completed the Project Expenditure table fully?	*
Do not include claim forms or other communications with this report.	