

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: 30th April 2022

Darwin Plus Project Information

Project reference	DPLUS130
Project title	Sustainable sargassum management in Anguilla, British Virgin Islands and Montserrat
Territory(ies)	Anguilla, British Virgin Islands and Montserrat
Lead partner	Caribbean Natural Resources Institute (CANARI)
Project partner(s)	Department of Natural Resources – Anguilla Ministry of Natural Resources, Labour and Immigration – BVI Department of Environment – Montserrat Centre for Resource Management and Environmental Studies of the University of the West Indies (CERMES) Organisation of Eastern Caribbean States (OECS) Commission
Darwin Plus grant value	£ 228,595
Start/end dates of project	October 1, 2021 – March 31, 2024
Reporting period (e.g. Apr 2021-Mar 2022) and number (e.g. Annual Report 1, 2)	October 2021 – March 2022, AR 1
Project Leader name	Ainka Granderson
Project website/blog/social media	https://canari.org/darwin-sargassum-ots/
Report author(s) and date	Ainka Granderson, April 29, 2022

1. Project summary

Since 2011, sargassum influxes have become a recurring event in the Eastern Caribbean, including Anguilla, British Virgin Islands (BVI) and Montserrat. These influxes, which are generally attributed to ocean eutrophication (including from land-based run off) and climate change (affecting ocean currents, upwellings and temperature), have resulted in increasingly negative ecological and socio-economic impacts. These impacts include: biodiversity loss in coastal and marine ecosystems (through excessive volumes suffocating endangered marine mammals and turtles and smothering coral reefs, seagrass beds and mangroves resulting in mortality); health impacts (through associated emissions of hydrogen sulphide and ammonia); and socio-economic/livelihood impacts in the tourism, fisheries and marine transport sectors (through loss of ecosystem services, infrastructure damage and clogged ports, and reduced working days and income). Impacts are directly felt in these sectors, including by fisherfolk, dive and tour operators and other community micro-enterprises, as well as by all coastal users, which for these tiny islands comprise the entire populations.

Research by the Centre for Resource Management and Environmental Studies (CERMES) at the University of the West Indies and other regional agencies highlights that management of

sargassum influxes is hampered by: (1) inadequate local and scientific information on lessons and best practices for management and adaptation; (2) poor forecasting and inadequate preparation; (3) lack of guiding national policies or plans and poor coordination for effective responses; and (4) inadequate access to funding to implement management and adaptation solutions.

This project on “Sustainable sargassum management in Anguilla, British Virgin Islands and Montserrat” aims to implement a participatory and multi-level approach to manage sargassum influxes to protect and enhance coastal and marine biodiversity and associated livelihoods. Key activities include: improving research, monitoring and early warnings of influxes to inform decision-making; strengthening multi-stakeholder engagement; and building the capacity of coastal and marine managers and users for sargassum use, removal and rehabilitation of affected areas.

2. Project stakeholders/partners

The key stakeholders were identified during project development as:

Anguilla – Department of Natural Resources - Ministry of Economic Development, Investment, Commerce, Information Technology and Natural Resources, Department of Disaster Management, Department of Physical Planning, Ministry of Tourism, Anguilla National Trust, Anguilla Community College, fisherfolk and their organisations (Anguilla Fisherfolk Association and Anguilla Fishing Cooperative), and dive and tour operators.

BVI – Ministry of Natural Resources, Labour and Immigration, Department of Agriculture and Fisheries - Ministry of Education, Culture, Youth Affairs, Fisheries and Agriculture, Town and Country Planning Development, Department of Disaster Management, Virgin Islands Tourist Board, National Parks Trust of Virgin Islands, H. Lavity Stout Community College, fisherfolk, dive and tour operators.

Montserrat – Department of the Environment and Department of Agriculture (inc. Fisheries and Ocean Resources Unit) - Ministry of Agriculture, Trade, Lands, Housing and the Environment, Disaster Management Coordination Agency, Physical Planning Unit, Montserrat Tourism Division, Montserrat National Trust, Montserrat Community College, fisherfolk and their organisations (Montserrat Fishers and Boaters Association and Montserrat Fishermen’s Cooperative), Aqua Montserrat, dive and tour operators.

Regionally - OECS Commission and CERMES, which will facilitate linkages with the research community, including the UNEP-SPAW sargassum online forum, Gulf and Caribbean Fisheries Institute (GCFI) and international research institutions.

The project has been seeking to refine the initial stakeholder identification as part of the scoping study done in year 1 as well as engage stakeholders in project implementation and monitoring from all three territories.

A Project Steering Committee was established at the inception workshop held virtually on December 1, 2021, which is comprised of experts in coastal and marine management from the project partners, including Department of Natural Resources - Anguilla, Ministry of Natural Resources, Labour and Immigration – BVI, Department of the Environment - Montserrat, CERMES and OECS Commission, and the project leader and climate change adaptation expert from CANARI. See <https://www.dropbox.com/sh/45z7o0qchjlex6t/AACezf1P8S-2OUVqIJLDC5poa?dl=0> for the inception workshop materials. The Committee is meeting virtually at least every 6 months to provide oversight and monitor and evaluate the progress and results of the project.

Effective engagement of key stakeholders in project implementation was also enabled through the scoping study undertaken in the three territories, including key informant interviews and field visits to profile sargassum stranding sites and impacts. The scoping study further supported review and identification of additional stakeholders that could be engaged in sargassum management and informed the development of the project communications and

engagement strategy. See *Appendix 1 in Annex 3* with the final draft scoping report for each territory.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1 – Strengthening the evidence base for decision-making

A **desk-based review** was undertaken as the first activity by CANARI, with support from the OT partners, drawing on published data, reports and journal and newspaper articles and unpublished data, reports and plans/strategies for monitoring and management of sargassum influxes in the three territories and regionally for the Eastern Caribbean. Based on this desk review, key information gaps and research/management capacity needs were identified and the scoping study was developed to help fill these gaps. See *Appendix 1 in Annex 3* for the final draft scoping reports, including the desk review findings and list of references.

A **scoping study** was conducted from January to March 2022 for each of the territories, building on the desk review, with the support of local consultants and technical oversight from CERMES and CANARI. The scoping study involved conducting key informant interviews and field visits to stranding sites to develop site profiles and identify the most at-risk and vulnerable areas for sargassum influxes. The key informant interviews were conducted with 6-10 informants in each territory from management agencies, research institutions, civil society and fisherfolk organisations and tourism-related enterprises that are impacted by sargassum influxes and/or engaging in management. The interviews sought to gather additional information to fill information gaps identified in the desk review and better understand local impacts and management capacities and practices. The visits to up to 10 stranding sites in each territory included capturing current photos of strandings (and sourcing past photos if limited strandings at present) and characterising the sites based on ecological, geophysical and socio-economic conditions to develop profiles and assess the level of exposure and vulnerability. Informal and opportunistic interviews were also conducted during the site visits with local resource users, where feasible, to further supplement information. Scoping reports were compiled based on the findings, and identified priority sites to focus management efforts, and key government, civil society and private sector stakeholders to engage. The reports have currently been shared with the project partners and other key stakeholders for review and inputs before finalisation. See *Appendix 1* with the final draft scoping report for each territory, including the key informant interview questions, list of interviewees and site profiles.

Based on the desk review and scoping study, an outline for the **participatory sargassum research and monitoring framework** has been drafted by CERMES for the territories to support systematic data collection to address key information gaps and inform decision-making. The framework includes a focus on ecological, socio-economic and health impacts from sargassum influxes associated with nearshore, mid-shore and offshore areas. It draws on inputs from the key management and research agencies and builds on current research and monitoring initiatives in each territory and CERMES' standardised protocols developed under regional sargassum initiatives. The full framework will be designed to engage OT partner agencies and other resource managers and users, including coastal residents, in data collection and analysis for research and monitoring of sargassum impacts, management and use. It will be further refined and finalised once it has been applied during years 2 and 3 of the project. See *Appendix 2* in Annex 3 for the outline of the participatory sargassum research and monitoring framework.

Output 2 – Mobilising knowledge for action

Knowledge, attitudes and practices (KAP) surveys were conducted from March to April 2022 in target communities in each territory to capture baseline data on stakeholders' knowledge and preferences related to sargassum influxes, the impacts and management and adaptation actions. These target communities were identified based on the scoping study in terms of communities that are exposed to sargassum influxes and dependent on fisheries, tourism and other related livelihoods that are significantly impacted by influxes. Due to this,

there was a delay in conducting the surveys as CANARI and the local field assistants had to wait for the completion of the scoping study to inform the survey approach and design. There were further delays with the surveys due to the COVID-19 pandemic and health concerns faced by some of the field assistants. Data compilation and detailed analysis are currently being completed and will be used in the finalisation of the project communications and engagement strategy. See *Appendix 3 in Annex 3* for the project communications and engagement strategy, which includes KAP survey questionnaire and preliminary survey findings.

The **project communications and engagement strategy** was drafted by CANARI, with inputs from the project partners, based on the preliminary findings and analysis from the KAP surveys as well as the desk review and scoping study in the three territories under Output 1. This strategy identifies the overall communication goal, objectives and target groups, and describes the key messages to be shared, based on the characteristics of each group. It also defines the preferred channels that will be used to communicate with the target groups within the two communities. Further, it identifies desired outcomes and methods to effectively engage the target groups in project activities and more broadly in sargassum management across the three territories. The draft strategy will be further refined and finalised once the detailed KAP survey analysis is completed and validated by stakeholders. See *Appendix 3 in Annex 3* for the draft project communications and engagement strategy.

Output 3 – Improving sargassum management

Key stakeholders from the three territories, including the partner agencies, were invited in March 2022 to participate in the Regional Sargassum Action Learning Network that has been established by CERMES and CANARI to facilitate knowledge sharing, learning and partnership building among government, academic and research institutes, industry and private sector, civil society and technical/intergovernmental agencies to enhance readiness and capacity to manage and adapt to sargassum influxes in the Eastern Caribbean. The OTs join over 30 other representatives from Barbados, Dominica, Grenada, Saint Lucia and Saint Vincent and the Grenadines and regional entities, including GCFI and the OECS Commission, within the network. The Network convenes virtually every 3-4 months to discuss key management challenges, lessons and innovations, with the most recent meeting held on April 20, 2022. See *Appendix 4 in Annex 3* for the report of the April 2022 meeting and list of current Network members.

Output 4 – Project management

The **virtual inception workshop** for the project was organised and held virtually on December 1, 2021 with representatives from all the project partners. The workshop covered: an overview of the project, including its components, activities and key outputs and outcomes; review of sargassum impacts and management efforts in each of the territories; project communications and visibility; participatory monitoring, evaluation and learning approach for the project; establishment of the Project Steering Committee; and potential synergies with past/current initiatives at the national and regional levels, including the regional project on “Adapting to a New Reality: Managing Responses to Influxes of Sargassum Seaweed in the Eastern Caribbean as Ecosystem Hazards and Opportunities (SargAdapt)” led by CERMES.

In terms of project delivery, it was agreed that the proposed work plan and budget for Year 1 was appropriate and activities would proceed accordingly, with no significant changes to the approach in the application. See <https://www.dropbox.com/sh/45z7o0qchjlex6t/AACezf1P8S-2OUVqIJLDC5poa?dl=0> for the inception workshop materials.

The **Project Steering Committee** was established, as noted above, at the virtual inception workshop and the second meeting was held virtually on April 4, 2022. At the second meeting, the Committee undertook the following:

- Reviewed actions undertaken between October 2021 – March 2022
- Reviewed the actions to be undertaken between April 2022 – March 2023, with a focus on the next six months.

- Identified and discussed synergies with regional and other relevant initiatives, including the regional SargAdapt project.

See *Appendix 5 in Annex 3* for the minutes of the bi-annual meeting of the Committee.

3.2 Progress towards project Outputs

In terms of Output 1, the desk review and scoping study have been completed and the final draft scoping reports for each OT and draft outline for the participatory research and monitoring framework developed within the first year as planned, with the scoping reports and framework document provided as means of verification.

For Output 2, the draft project communications and engagement strategy has been developed to guide and increase knowledge mobilisation and information exchange among stakeholders on sargassum impacts, management and use, and ensure effective dissemination of results, lessons and recommendations related to activities across the three territories, with a copy being provided as means of verification.

For Output 3, the opportunity for the OT stakeholders to engage in the Regional Sargassum Action Learning Network with other national and regional representatives from the Eastern Caribbean has initiated knowledge exchange and learning to help improve their approach to management and adaptation to sargassum influxes. This opportunity will continue to be provided over the next 2 years of the project.

The project is on track to achieve the three key outputs by the end of the project in March 2024.

3.3 Progress towards the project Outcome

In terms of achieving the project Outcome, “Coastal and marine resource managers and users in Anguilla, BVI and Montserrat have enhanced knowledge, institutional frameworks, experience and commitment to manage ecological and socio-economic risks from sargassum influxes”, the project has completed the baseline assessments and designed a research and monitoring framework to begin establishing the evidence base and is now embarking on the next phase of creating awareness about the issues and the actions required and strengthening management institutions and practices.

The project is on track to deliver the project Outputs and building enabling conditions for achieving the project Outcome in terms of: developing an evidence base to inform decision-making; creating strong networks and a community of practice for sharing knowledge and practice; developing a culture of ‘bottom-up’ and participatory implementation of research and monitoring; and facilitating sharing of lessons and best practices among policy makers, practitioners and other key stakeholders in Anguilla, BVI and Montserrat.

3.4 Monitoring of assumptions

A key assumption is that sargassum influxes will occur during the project timeframe. At present, there have been limited influxes during the period of the scoping study, including field visits to develop stranding site profiles, and KAP surveys in target communities. This could potentially affect the ability to assess the level of exposure and vulnerability to influxes, and current knowledge and attitudes, and so ongoing monitoring of influxes in year 2 and 3 will be important for capturing further data on impacts and management practices.

In all three territories, key stakeholders have shown a willingness to share information and be involved in the on-the-ground activities. However, fisheries and tourism-specific stakeholders have not been actively engaged as yet as Year 1 activities did not require this level of engagement beyond participation in interviews/surveys for the scoping study and KAP surveys, and efforts will need to be made to fully engage them under activities for Output 2 in Year 2 and consideration given to whether they should be invited to participate in the Project Steering Committee.

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

The project is conducting a scoping study and developing a participatory research and monitoring framework, with a focus on ecological, socio-economic and health impacts from sargassum influxes associated with nearshore, mid-shore and offshore areas, and facilitating knowledge exchange and learning on good practices and innovations for sustainable management. This is contributing to improving conservation and management of the coastal and marine environment in the three territories, and enabling adaptation to the climate-linked hazard of sargassum influxes.

Through a participatory approach and engagement with key stakeholders in the public and private sectors and civil society, the project is also building capacity at the territorial and local level to undertake data collection for research and monitoring and undertake assessments of the impacts of sargassum influxes on the fisheries, tourism and other relevant sectors.

5. Monitoring and evaluation

There has been no change to the M&E plan. The Means of Verification in the project logframe are being used to monitor indicators of achievement of Outputs.

At the virtual inception workshop, the project partners indicated that they would all want to be involved in the Monitoring and Evaluation (M&E) of project delivery. As such, monitoring is being done by the Project Steering Committee of ongoing project implementation, especially at the bi-annual meetings. It is also being done by way of regular discussions among the CANARI Project Leader and team members responsible for implementing various actions, and the project focal points in the three OTs to keep them abreast of and involved in the actions being delivered.

6. Lessons learnt

A key lesson from the scoping study and KAP surveys was the identification and engagement of a local consultants/field assistants to conduct in-country field activities and support mobilisation of stakeholders in the three territories. This is particularly valuable given current constraints in terms of CANARI and CERMES staff being able to untravel due to the COVID-19 pandemic and ongoing travel restrictions set by the institutions.

Another key lesson was the need for flexibility in timing of project activities to take into account delays due to COVID-19 outbreaks and other natural hazards on these small islands.

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

Not applicable.

8. Other comments on progress not covered elsewhere

No further comments.

9. Sustainability and legacy

During the year the following efforts were made to promote the work and build capacity within the three OTs:

- Working closely with the partner government agencies in each island to plan and execute the project activities.
- Utilising frameworks and tools which call for stakeholder participation and providing opportunities to promote the project directly to persons engaged in the activities.

- Utilising local consultants and field assistants from each territory to conduct the scoping study and KAP surveys.
- Arranging for OT stakeholders to participate in the Regional Sargassum Action Learning Network.

The planned strategy for sustainability is still valid.

10. Darwin identity

The Darwin identity was promoted through:

- Ensuring that Darwin's logo is placed, along with those of the partners, on all project materials.
- Acknowledging Darwin's contribution to the project at all events (meetings/workshops/field exercises), in all social media postings (Facebook, Instagram and Twitter) and press releases and in all project reports. A press release was made at the start-up of the project, and further releases are planned at the start and end of various actions. The releases are being distributed by CANARI using various listservs (e.g. GCFI listserv, CaMPAM listserv, SargNet listserv, etc.).

Please see the project webpage with recent news and blogs at: <https://canari.org/darwin-sargassum-ots/>

11. Impact of COVID-19 on project delivery

In project development, CANARI and its project partners made significant adjustments due to the COVID-19 pandemic. This included planning for and budgeting local consultants or field assistants/mobilisers to support in-country activities in the three OTs, particularly in Year 1 and into Years 2 and 3. Even with this adjustment, the project is still experiencing additional delays owing to illness and health concerns due to COVID-19 for the local consultants and field assistants.

A number of key activities have also been designed to be held virtually, including the inception workshop, bi-annual project steering committee activities and some of the trainings under the project.

In terms of the spread of costs, the budget for Year 1 is 25% of the total budget, while Year 2 is 35% and Year 3 is 40%. This recognises that the impacts of COVID-19 and the fact that related restrictions will potentially limit the ability of CANARI's and CERMES' experts to travel to facilitate in-person training and other activities in Year 1 and early Year 2. Substantive work including in-person training and other consultation workshops are planned for the second half of Year 2 and Year 3.

These adjustments have proven to be appropriate under Year 1 implementation. CANARI will continue to monitor the situation and adapt the activities for Year 2 and 3 accordingly.

12. 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 as indicated in the T&Cs.

No concerns have been raised, and no changes have been made to CANARI's safeguarding policy and procedures.

13. 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	██████	██████	██████	Costs claimed in Q4 for local travel, subsistence and other materials by local consultants and enumerators for the scoping study and KAP surveys were less than originally budgeted
Operating Costs	██████	██████	██████	Costs for graphic design of project brief were less than originally budgeted due to use of in-house graphic designer that led to cost savings in Q4
Capital items	██████	██████	██████	██████ to cover the costs of UAV drones/field equipment for each of the OTs was moved to Year 2 based on approval of change request by Darwin
Others (Please specify)	██████			
TOTAL	██████	██████		

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?	x
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	x
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	x
Do you have hard copies of material you 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.	
Have you involved your partners in preparation of the report and named the main contributors	x
Have you completed the Project Expenditure table fully?	x
Do not include claim forms or other communications with this report.	