



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	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 2022-Mar 2023) and number (e.g. Annual Report 1, 2)	April 2022 – March 2023, AR 2
Project Leader name	Yasa Belmar
Project website/blog/social media	https://canari.org/darwin-sargassum-ots/
Report author(s) and date	Yasa Belmar, April 29, 2023

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 CERMES 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 facilitates linkages with the research community, including the UNEP-SPAW sargassum online forum, Gulf and Caribbean Fisheries Institute and international research institutions.

Over the period, the Project Steering Committee comprising 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, continued to meet on a semi-annual basis. This Committee provides oversight and monitors and evaluates the progress and results of the project. Appendix 1 provides the minutes of the PSC meetings.

A wider body of stakeholders in each overseas territory (OT) was also engaged through participation in the KAP surveys (Appendix 2 – the KAP survey report, documents the number and composition of participants) and through virtual workshops on improving sargassum management in each OT held in January 2023. Appendix 3 presents the virtual workshop participant lists.

Stakeholders were also engaged through their participation in the Action Learning Network (ALN), which meets on a quarterly basis. Technical specialists and sargassum entrepreneurs who are not formally project partners have had an opportunity to engage in knowledge exchange and learning under the project through participation in these ALN meetings. Appendix 4 presents the reports of the ALN meetings.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1 – Strengthening the evidence base for decision-making

The capacity of 21 coastal and marine resource managers and users was built in **the use of drones and participatory ICT tools** to collect scientific and local information and map and monitor sargassum influxes, impacts, and management practices and outcomes. These teams participated in 5-day in-person bootcamps, followed by six months of follow-up training, technical support and coaching. The OT Drone Teams were successful in incrementally planning, designing and conducting 12 sargassum drone beach monitoring surveys to map and quantify the abundance of beached sargassum at these sites. In the process, series of aerial photographs were produced using drones for each OT, which can be integrated into the territories' GIS/national information systems. The Drone Training report is presented in Appendix 5.

The outputs of the drone mapping were used to supplement the scoping studies in order to finalise the **participatory sargassum research and monitoring framework (PRAM)**. This framework will support systematic data collection to address key information gaps and inform decision-making in each of the OTs. The PRAM contains components related to monitoring the biophysical, socio-economic and livelihoods impacts as well as the opportunities resulting from sargassum influxes. It also integrates guidance on governance and institutions to support effective participatory monitoring, evaluation and learning. The PRAM is designed to enable full engagement of relevant stakeholders in data collection and analysis for research and monitoring of sargassum impacts, management and use. A copy of the PRAM is provided in Appendix 6.

Output 2 – Mobilising knowledge for action

The **Knowledge, attitudes and practices (KAP) surveys** were completed in the target communities in each territory. The purpose of the surveys was to capture baseline data on stakeholders' knowledge and preferences related to sargassum influxes, the impacts and management and adaptation actions. In general, across the OTs the studies found that coastal stakeholders were moderately aware of the benefits of sargassum for marine biodiversity. Although most respondents were aware of good practices in dealing with sargassum, such as moving small or moderate amounts by hand or using light equipment, many respondents still had a preference for quick removal using bobcats and other heavy equipment to prevent unpleasant odours or other nuisances associated with the build-ups. Other findings can be reviewed in KAP survey report, which has been provided in Appendix 2. The findings of the KAP surveys were validated at a virtual workshop in January, 2023.

The **project communications and engagement strategy** was finalised based on the results of the KAP survey and inputs from project partners and stakeholders. This strategy identifies the overall communication goal and objectives, 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 final draft of the Strategy was validated by stakeholders at a workshop held in January 2023. Appendix 7 contains the workshop presentations and Jamboard notes of discussions. Appendix 8 contains the final project communications and engagement strategy.

Three (3) **awareness products** – a booklet on sargassum best practices for fishers and a best-practices poster for the tourism sector were printed during year 2 for dissemination to stakeholders within OTs and an ArcGIS StoryMap on the application of drone technology in sargassum management developed. Samples of the fishers' best practice guide, and the tourism sector best-practices poster are provided in Appendix 9. The ArcGIS StoryMap may be viewed [here](#).

Output 3 – Improving sargassum management

Sargassum Adaptive Management Strategies (SAMS) have been developed for each OT, identifying the priority coastal areas to target and actions, stakeholders' roles and responsibilities for monitoring, collection, removal and rehabilitation of each priority area, required resources, and coordination mechanisms. Copies of the SAMS are supplied in Appendix 10.

OTs stakeholders have also participated in 2 meetings of the **Regional Sargassum Action Learning Network** with other government, civil society, private sector, academic and technical/intergovernmental agency stakeholders working in the Eastern Caribbean region. This has supported knowledge exchange, learning and partnerships to improve management and adaptation to sargassum influxes. See Appendix 4 for a report of the latest ALN meeting, including OT representatives.

Output 4 – Project management

The **Project Steering Committee** met on October 11, 2022 and March 30, 2023. At both meetings, the Committee:

- Reviewed actions undertaken over the prior six months;
- Reviewed the actions to be undertaken over the next six months; and
- Identified and discussed synergies with regional and other relevant initiatives, including the regional SargAdapt project.

Minutes of the bi-annual meetings of the Committee are provided in Appendix 1.

3.2 Progress towards project Outputs

In terms of Output 1, the scoping studies were validated by stakeholders and finalised, targeted training and technical support was provided for local stakeholders in the use of drones to conduct monitoring and to integrate drone and other data into GIS and other relevant databases for data analysis and management, and a participatory research and monitoring framework (PRAM) finalised using inputs from the drone mapping exercises. Copies of the scoping studies are provided in Appendix 11, the drone training report in Appendix 5 and the PRAM in Appendix 6.

For Output 2, the KAP surveys were completed for each OT and the results used to finalise the project Communications and Engagement Strategy. These reports were validated by stakeholders and finalised. Appendix 2 contains copies of the KAP reports and Appendix 8, contains the Communications and Engagement Strategy as evidence. Knowledge products have also been developed to be disseminated to the OTs. See Appendix 9 for copies of the awareness products that were printed and click [here](#) for access to the ArcGIS StoryMap.

For Output 3, Sargassum Adaptive Management Strategies (SAMS) have been developed for each OT to guide strategic and coordinated multi-level responses to sargassum influxes. See Appendix 10 for copies of the SAMS. OT stakeholders have also continued to engage in the Regional Sargassum ALN with other national and regional representatives from the Eastern Caribbean which has initiated knowledge exchange and learning to help improve their approach to management and adaptation to sargassum influxes. See Appendix 4 for reports on the latest ALN meetings. They also participated virtually in the UWI Sargassum Symposium.

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

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

Indicator 0.1 By the end of the project, a sargassum research and monitoring framework developed and being used by local stakeholders in each of the three OTs to collect local and scientific information on sargassum influxes, ecological and socio-economic impacts, practices for management (removal, uses and coastal and marine ecosystem rehabilitation), and management outcomes, which is suitable for integration into the OTs' national GIS/information systems

Progress to date:

- Scoping reports inclusive of site profiles have been completed for all territories. See Appendix 11.
- The Sargassum participatory research and monitoring framework was completed. See Appendix 6.
- Drone Teams are conducting ongoing monitoring and producing state-of-the art scientific information on sargassum influxes, ecological and socio-economic impacts, practices for management (removal, uses and coastal and marine ecosystem rehabilitation), and management outcomes, which is suitable for integration into the OTs' national GIS/information systems. See Appendix 5.

Indicator 0.2 By the end of the project, at least 300 coastal and marine resource managers and users (including government agencies, CSOs, fisherfolk, tourism enterprises and research institutions) across the three OTs demonstrate enhanced knowledge and skills to engage in sargassum management, including at least 50% women.

Progress to date:

- Baseline KAP studies have been completed. See Appendix 2.
- A communications and engagement strategy has been developed. See Appendix 8.
- Thus far, 246 stakeholders (35.4% female) have been engaged in project activities. 28 persons of these were from the public sector and 218 from civil society.

Indicator 0.3 By the end of the project, a sargassum management plan developed/strengthened in each of the three OTs to guide strategic and coordinated multi-level responses to sargassum influxes (including removal, use and rehabilitation for biodiversity protection or restoration)

Progress to date:

- New sargassum adaptive management strategies (SAMS)¹ have been developed for each of the 3 OTs. See Appendix 10.

Indicator 0.4 By the end of project, cost savings and other economic benefits for each of the three OTs from improved early warning and sargassum management actions, including partner agencies and fisheries/tourism stakeholders.

Progress to date:

- This indicator has been revised as a response to the following DPAG feedback "Outcome indicator 0.4 could be improved as it is not capable of measuring claimed economic benefits."
- The proposed revision: "By the end of project, at least 20 stakeholders in the fisheries, tourism and other coastal and marine sectors in each OT report that they have been

¹ Learning from prior experiences in the Eastern Caribbean, SAMS were developed instead of sargassum management *plans* because they provide more strategic frameworks for adaptive management in the face of massive uncertainties associated with sargassum and allow for more tailored, site-specific management plans to be created depending on local conditions at a particular site and the socio-economic factors affecting management. They also integrate better with the participatory research and monitoring aspects, allowing for learning and adaptive management over time.

able to reduce their costs of sargassum management or generate revenue through sustainable uses as a result of the project”.

- Baseline information on the economic impacts of influxes has been captured in the scoping reports.

The project is making steady progress towards achieving its Outcome by the end of the funding period. Notably, advancements have been made in strengthening the evidence base for decision-making, particularly through the use of drones and participatory ICT tools that enable integration into GIS and other relevant databases. Additionally, efforts have been made to promote a culture of participatory implementation of research and monitoring from the grassroots through development of participatory research and monitoring frameworks. Knowledge mobilisation for action has been facilitated through the development of a validated communication and engagement strategy, as well as the creation of knowledge products. Furthermore, the project has been enabling improvement in sargassum management through the fostering of strong networks and a community of practice for knowledge sharing across the participating OTs and the OECS, facilitating the exchange of lessons learned and best practices among policy makers and practitioners.

3.4 Monitoring of assumptions

Assumption 1: Sargassum influxes will occur during the project timeframe

Comments: During the first and most of the second year of the project, sargassum influxes were very low. Some stakeholders felt that sargassum was not a major problem for their territories. However, beginning in February 2023, influxes have become more frequent and more significant, therefore there is now more urgency among stakeholders for implementation of management actions. Teams in each territory have been able to apply drone monitoring protocols to assess the volume of influxes and to assess true levels of exposure and vulnerability as well as data on impacts and management practices.

Assumption 2: Target stakeholders have the time and are sufficiently interested and willing to participate in capacity building and management planning interventions

Comments: In all three territories, key stakeholders have shown a willingness to share information and be involved in the on-the-ground activities. Both tourism and fisheries stakeholders were engaged in training and validation workshops under the project, with further engagement planned for year 3. Participant lists are provided in Appendix 3.

Assumption 3: Suitable local counterparts are available and interested in being trained and being part of the project implementation team.

Comments: Suitable stakeholders have demonstrated an interest in being trained and are participating in project implementation. See the drone training report in Appendix 5 and Appendix 1 for the Minutes of the PSC meetings as evidence of local counterparts' training and participation in project implementation.

Assumption 4: COVID-19 pandemic national restrictions in the OTs will still allow practical actions by local stakeholders in the field.

Comments: COVID-19 pandemic restrictions have now been lifted in all the OTs. Practical actions by local stakeholders in the field is no longer affected by this risk.

Assumption 5: COVID-19 pandemic international travel restrictions will allow for travel to the 3 OTs by September 2022 by the UWI-CERMES and CANARI teams to conduct the drone training and facilitate application of participatory ICT tools in the OTs. Otherwise, stakeholders will be willing to engage in virtual trainings and workshops.

Comments: Risk did not materialise. Drone training and application of participatory ICT tools went ahead as planned in September 2022.

Assumption 6: Hurricanes, volcanic eruptions and other natural disasters or political or socio-economic upheavals do not overly disrupt implementation of project activities

Comments: Risk still valid. However, field activities for year 3 have been scheduled to take place before the start of the hurricane season to avoid unnecessary disruptions.

Assumption 7: Knowledge exchange opportunities under other initiatives (SargAdapt and OECS' SARG'COOP projects) occur during the timeframe of this project

Comments: Risk did not materialise. Knowledge exchanges continue to take place with regular updates being presented during PSC meetings. OT focal points also participated virtually in the CERMES Sargassum Symposium, held in March under the SargAdapt project.

Assumption 8: Management actions implemented during the project are of sufficient scale that economic impacts can be detected.

Comments: In the absence of green accounting at the national level in the OTs, it will be difficult to detect economic impacts of the project. Evidence may have to be anecdotal.

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

A participatory research and monitoring framework (PRAM) has been developed under the project. This PRAM focuses 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 assessments of the impacts of sargassum influxes on the fisheries, tourism and other relevant sectors.

Additionally, the Participatory Unmanned Aerial Systems (P-UAS)/ drone monitoring training received by teams in each territory has been useful for other forms of environmental monitoring. In Anguilla, teams have utilised the drones to monitor sea bird colonies and to spot areas of illegal sand mining. Utilising the tools in this manner helps coastal resource managers in the territories to track progress towards national biodiversity strategies and to identify hotspots where restoration is required.

5. Gender equality and social inclusion

The project team within CANARI and teams within the project partners are of mixed genders and as shown in the table below, 60% of the project partners are led by women.

Please quantify the proportion of women on the Project Board ² .	40% (2 /5) of the project board are 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 ³ .	60% (3/5) of project partners are led by women

5. Monitoring and evaluation

There has been no change to the M&E plan besides revision of indicator 0.4 based on DPAG feedback regarding suitability of the original indicator. The Means of Verification in the project logframe are being used to monitor indicators of achievement of Outputs.

Project partners indicated are involved in the Monitoring and Evaluation (M&E) of project delivery through the Project Steering Committee at the bi-annual meetings. It is also being done via 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

There was strong participation from focal points in the project steering committee over this past year. Having the chairmanship rotated between PSC meetings encouraged focal points to take greater interest in and responsibility for project implementation. However, the difficulties associated with Caribbean travel in the immediate aftermath of the COVID-19 pandemic⁴ led to the need for ongoing virtual stakeholder engagement for most of year 2. The level of

² 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.

³ 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.

⁴ The main regional carrier, Liat became insolvent, leading to very low availability of flights and high costs.

stakeholder participation in the virtual validation workshops was therefore lower than expected, especially in Montserrat.

If we had to do it again, local mobilisers would be engaged as part-time contracts to support ongoing stakeholder engagement, particularly ahead of virtual workshops. This approach has worked very well in the past, generating high turn-out of a broad cross-section of stakeholders for in-person workshops.

In-person stakeholder workshops are scheduled for early in quarter 1 of year 3. Local mobilisers who have a track record of effective stakeholder engagement have been hired to provide support.

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

Comment 1: In Anguilla and Montserrat, the people interviewed for the scoping study were all from either government or National Trust organisations, and so it appears that many of the stakeholders identified were not actually consulted during the scoping study. So there is a potential gap in engagement with some stakeholders to date, particularly in civil society. Please be clear about when the other stakeholders will be engaged in the process, with evidence to support the engagement (Activities 3.1 and 3.2).

Response: A wider range of stakeholders were consulted during year 2. A virtual validation workshop was held in January 2023 which included participants from a broad cross-section of government, civil society and private sector representatives. See Appendix 3 for the participant lists.

Comment 2: “The Darwin Plus project identity could be. (sic) Please also look at using the Darwin Plus logo, rather than the Darwin initiative logo”.

Response: The Darwin Plus logo has been utilised on the latest publications. See Appendix 10 (SAMS) and Appendix 6 (PRAM).

Comments 3: “Activity 1.3 was to design the participatory sargassum research and monitoring framework for each OT to address the gaps based on the outcomes of activities 1.1 and 1.2. The draft outline of the framework is currently very high level (Appendix 2) and has no details specific to the OTs. this activity does not seem to have been implemented as planned, and progress on the detailed framework for each OT should be a priority in the early part of Y2”.

Response: Details relevant to each of the OTs have been added to the PRAM. The PRAM should also be used in conjunction with SAMS Volume 2 (Appendix 10), which contain site profiles for the priority sargassum monitoring beaches in each OT.

Comment 4: You have not provided comment on the feedback from the DPAG when the project was awarded.

- Feedback: “Outcome indicator 0.4 could be improved as it is not capable of measuring claimed economic benefits.”
- Response: The following indicator has been proposed instead “By the end of project, at least 20 stakeholders in the fisheries, tourism and other coastal and marine sectors in each OT report that they have been able to reduce their costs of sargassum management or generate revenue through sustainable uses as a result of the project”.

8. Risk Management

Rapid inflation has affected the cost of airfare and other meeting-related expenses. This will have an impact on the budget for year 3.

To address this risk, we will reduce the need for travel by combining workshops where possible. For instance, the training-of-trainers workshop on best management practices for sargassum will be crafted to also enable final validation of the sargassum Adaptive Management Strategies and Participatory Research and Monitoring Frameworks.

9. Other comments on progress not covered elsewhere

10. Sustainability and legacy

During the year the following efforts were made to promote the project 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 complete the scoping study and KAP surveys.
- Facilitating participation of OT stakeholders in the Regional Sargassum Action Learning Network.

The planned strategy for sustainability is still valid.

11. Darwin Plus identity

The Darwin identity was promoted through:

- Ensuring that the Darwin Plus logo is placed, along with 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. Press releases were made either at the start and/or end of the various actions, with the releases 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 and social media postings at:

<https://canari.org/darwin-sargassum-ots/>

Copies of Instagram posts can be viewed via the [Dropbox visibility folder](#).

12. 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 – Yasa Belmar, [REDACTED]
Has the focal point attended any formal training in the last 12 months?	No
What proportion (and number) of project staff have received formal training on Safeguarding? CANARI has not delivered any formal training on safeguarding. Staff comply with CANARI's Safeguarding policy which they are oriented on upon employment.	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.

13. 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				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				

Others (Please specify)				
TOTAL	129,163	129,163		

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.		
Total additional finance mobilised by new activities building on evidence, best practices and project (£)		

14. 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).

As the Eastern Caribbean grapples with recurrent and devastating influxes of sargassum since 2011, ongoing studies have identified ocean eutrophication and climate change as the culprits behind this ecological crisis. The impacts of these influxes are far-reaching, resulting in biodiversity loss, health impacts, and socio-economic challenges in the tourism, fisheries, and marine transport sectors. The consequences of sargassum influxes are dire, suffocating endangered marine mammals and turtles, smothering coral reefs, seagrass beds, and mangroves. Emissions of hydrogen sulphide and ammonia further compound the health risks, while loss of ecosystem services, infrastructure damage, and disrupted livelihoods add to the socio-economic burden.

With fisherfolk, dive and tour operators, and coastal communities bearing the brunt of these impacts, urgent action is needed to combat this escalating crisis. To address this challenge, the Sustainable Sargassum Management Project, funded by the UK government through Darwin Plus, is strengthening the capacity of stakeholders in three overseas territories – Anguilla, Montserrat, and the Virgin Islands – for participatory and adaptive management of sargassum. Through this project, sargassum adaptive management strategies (SAMS) and a participatory research and monitoring (PRAM) framework have been developed, enabling coastal and marine resource managers and users to engage in a cyclical process of planning, implementing, monitoring, evaluating, learning, and adjusting management interventions over time to effectively deal with this threat.

Drone monitoring teams in each territory have also been trained to incorporate unmanned aerial systems (drone) technology into monitoring, allowing for more rapid and accurate assessments, leading to evidence-based decision-making. The skillset developed through this training has not only been beneficial for sargassum monitoring but has also been applied to a wide range of environmental management monitoring applications in the territories, including monitoring coastal erosion and mapping of shallow coastal ecosystems, as well as tracking sea bird nesting sites.

In the final year of the project, CANARI and CERMES will continue to support national teams in the implementation of the SAMS and PRAM through targeted capacity building, communications, and stakeholder engagement efforts.

Overall, the Sustainable Sargassum Management Project has made significant progress in strengthening the capacity of stakeholders in the Eastern Caribbean to effectively manage the impacts of sargassum influxes through participatory, adaptive management strategies and innovative monitoring techniques. The project has not only contributed to addressing the sargassum crisis but has also built capacity in environmental monitoring, benefiting the territories beyond the scope of this specific issue.


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)
Image		Drone monitoring team during September Bootcamp Anguilla	Instagram: canari_caribbean dronesorbust LinkedIn: Caribbean Natural Resources Institute (CANARI)	Yes

Image	https://gopro.com/v/62Kn5z41b7aGv/EDJPQDNJJv5E0	Anguilla drone monitoring team in the field	Instagram: canari_caribbean dronesorbust LinkedIn: Caribbean Natural Resources Institute (CANARI)	Yes
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Annex 1: Report of progress and achievements against logframe for Financial Year 2022-2023

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
<p>Impact</p> <p>Enhanced management and adaptation to risks associated with sargassum influxes to protect critical coastal and marine biodiversity and associated livelihoods in Anguilla, British Virgin Islands (BVI) and Montserrat</p>			
<p>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</p>	<p>0.1 By the end of the project, a sargassum research and monitoring framework developed and being used by local stakeholders in each of the three OTs to collect local and scientific information on sargassum influxes, ecological and socio-economic impacts, practices for management (removal, uses and coastal and marine ecosystem rehabilitation), and management outcomes, which is suitable for integration into the OTs' national GIS/information systems</p> <p>0.2 By the end of the project, at least 300 coastal and marine resource managers and users (including government agencies, CSOs, fisherfolk, tourism enterprises and research institutions) across the three OTs demonstrate enhanced knowledge and skills to engage in sargassum management, including at least 50% women</p> <p>0.3 By the end of the project, a sargassum management plan</p>	<p>In terms of achieving the project outcome, a sargassum participatory research and monitoring framework has been developed with inputs from local stakeholders in each of the 3 OTs. This framework outlines suitable approaches to collection of local and scientific information on sargassum influxes, ecological and socio-economic impacts, practices for management. Drones and related software were provided to partner agencies alongside targeted training in drone monitoring and the integration of drone and other data into GIS and other relevant databases for data analysis and management.</p> <p>A project communications and engagement strategy were also developed with input from key stakeholders and knowledge products developed.</p> <p>We have also contributed to improving sargassum management by developing sargassum adaptive management strategies for each OT to guide</p>	<p>For 2023-2024, the following actions are planned:</p> <p><i>Output 1</i></p> <p>1.8 Revise and finalise participatory sargassum research and monitoring framework for each OT based on key findings and lessons during project</p> <p><i>Output 2</i></p> <p>2.3 Continue to develop and disseminate knowledge products for awareness raising on sargassum forecasts, impacts and management strategies in each OT, including via CANARI's and partners' websites/online platforms</p> <p>2.4 Organise at least 1 awareness-raising activity on best practices and innovations for managing sargassum influxes in each OT</p> <p>2.5 Facilitate at least 1 peer exchange visit for knowledge sharing on lessons, best practices and innovations in managing sargassum</p>

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
	<p>developed/strengthened in each of the three OTs to guide strategic and coordinated multi-level responses to sargassum influxes (including removal, use and rehabilitation for biodiversity protection or restoration)</p> <p>0.4 By the end of project, at least 20 stakeholders in the fisheries, tourism and other coastal and marine sectors in each OT report that they have been able to reduce their costs of sargassum management or generate revenue through sustainable uses as a result of the project.⁵</p>	<p>strategic, coordinated multi-level management of influxes.</p> <p>During the third year of the project, support will continue to be provided for implementation of these strategies through targeted capacity building and engagement. Action learning network sessions will also continue to facilitate effective coordination, knowledge sharing and problem-solving among the OTs and other OECS members.</p>	<p>influxes among OTs and OECS Members</p> <p>2.6 Conduct KAP survey in each OT at end of project</p> <p>Output 3</p> <p>3.4 Design and facilitate a 2-3-day training of trainer workshop in each OT on best practices for sargassum collection, removal and use and rehabilitation of affected areas</p> <p>3.5 Facilitate at least 2 virtual regional action learning sessions among OTs and OECS Members on operationalising sargassum management plans and multi-stakeholder coordination mechanisms</p>
<p>Output 1. Local and scientific knowledge documented and available on the ecological and socio-economic impacts of sargassum influxes in Anguilla, BVI and Montserrat and management best practices to inform decision-making</p>	<p>1.1 By the end of year 1, desk review and scoping conducted in each OT with local field team, including assessment of ecological and socio-economic impacts, gendered impacts and management practices</p> <p>1.2 By the end of year 1, participatory sargassum research and monitoring</p>	<p>1.1 – 1.2: scoping studies for each OT were completed with input from local stakeholders. The sargassum participatory research and monitoring (PRAM) framework was also completed. Please see Appendix 11 for the scoping studies and Appendix 6 for the PRAM as means of verification.</p> <p>1.3-1.4 Three drone teams (21 persons) – one in each territory were trained and received follow-up technical support and coaching. Two sargassum monitoring site beaches drone mapping surveys were successfully set up in each OT. The OT Drone Teams were successful in incrementally planning,</p>	

⁵ Proposed replacement for the following indicator “By the end of project, cost savings and other economic benefits for each of the three OTs from improved early warning and sargassum management actions, including partner agencies and fisheries/tourism stakeholders”.

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
	<p>framework designed for each OT for ongoing collection of local and scientific information on sargassum influxes, ecological and socio-economic impacts, practices for management (removal, use and coastal and marine ecosystem rehabilitation), and management outcomes</p> <p>1.3 By the end of year 2, at least 20 coastal and marine resource managers and users (with at least 50% women) in each OT trained and receive follow-up technical support and coaching in the use of drones and participatory ICT tools to collect scientific and local information and map and monitor sargassum influxes, impacts, and management practices and outcomes</p> <p>1.4 By the end of the project, trained resource managers and users produce at least 1 series of aerial photographs from drones for each OT, which can be integrated into the territories' GIS/national information system, to support mapping and monitoring of sargassum influxes and management outcomes</p> <p>1.5 By the end of the project, trained resource managers and users implement at least 1 process to</p>	<p>designing and conducting 12 sargassum drone beach monitoring surveys to map and quantify the abundance of beached sargassum at these sites. In the process, series of aerial photographs were produced using drones for each OT, which can be integrated into the territories' GIS/national information systems. See Appendix 5 for the Drone Training report as means of verification.</p> <p>1.5 will be completed in year 3 as the monitoring teams continue to implement the participatory research and drone monitoring protocol.</p>	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
	collect local knowledge on influxes, impacts and management practices and outcomes in each of the 3 OTs		
Activity 1.1 Conduct desk-based review for scoping and design of participatory sargassum research and monitoring framework, including identifying key information gaps and research/management capacity needs		Desk review to support scoping and other work under the project for each of the OTs completed in year 1.	N/A
Activity 1.2 Conduct scoping, including interviews/economic impacts surveys, site visits capturing current photos and sourcing past photos of strandings, and develop reports and site profiles for affected areas		Scoping reports for each of the OTs were finalised following stakeholder verification. See the scoping reports in Appendix 11 as means of verification.	N/A
Activity 1.3 Design participatory sargassum research and monitoring framework for each OT to address key information gaps based on desk-based review and scoping, including a focus on ecological, socio-economic and health impacts from sargassum influxes associated with nearshore, mid-shore and offshore areas		Final draft participatory research and monitoring (PRAM) framework was developed with sub-sections relevant to the needs of each OT and incorporating the outputs of the drone mapping and monitoring. See the PRAM framework in Appendix 6 as means of verification.	N/A
Activity 1.4 Procure drones/related software and train OT partner agencies, CSOs and local communities to conduct drone monitoring in each OT using standardised monitoring protocol		Drones procured and supplied to each of the 3 OT partner agencies. 21 persons (7 in each OT) inclusive of representatives from government, CSOs and local communities were trained to conduct drone monitoring using the standardised monitoring protocol. See the drone training report in Appendix 5 as means of verification.	N/A
Activity 1.5 Conduct virtual 1-2 day training in each OT for partner agencies, CSOs and local communities on participatory ICTs to capture local knowledge and practices		This activity was incorporated into the training module on participatory sargassum drone mapping and monitoring. See the drone training	N/A

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
		report in Appendix 5 as means of verification.	
Activity 1.6 Provide technical support for drone monitoring and other research and monitoring activities in Years 2-3 by OT government agencies, CSOs and local research organisations		Six (6) months of technical support were provided to the drone monitoring teams using a blended learning approach using an online course platform, supplemented by self-paced online learning resources, live 'face-to-face' instruction and dedicated 'coaching' technical guidance sessions. See the drone training report in Appendix 5 as means of verification.	Additional support will be provided in year 3 for other research and monitoring activities to support PRAM implementation.
Activity 1.7 Provide targeted training and virtual coaching to OT partner and other key agencies to integrate drone and other data into national GIS/information databases		Completed as part of the drone monitoring course. See Appendix 5 as evidence.	Further support will be provided in year 3, as required.
Activity 1.8 Revise and finalise participatory sargassum research and monitoring framework for each OT based on key findings, experiences and lessons during project		None.	Will be done in year 3.
Output 2. Knowledge communicated and stakeholders engaged in practical activities for awareness raising and engagement among coastal and marine resource managers and users on sargassum impacts and management best practices in Anguilla, BVI and Montserrat	<p>2.1 By the end of year 1, a communication and engagement plan developed for the three OTs, identifying target audiences, key messages and appropriate communication products and pathways, and strategies for stakeholder engagement on actions under outputs 1, 3 and 4</p> <p>2.2 By the end of the project, at least 6 products (e.g. participatory video/photostories, radio infomercials/podcasts and infographics) developed and disseminated</p> <p>2.3 By the end of the project, at least</p>	<p>2.1. The project <i>Communication and Engagement Strategy</i> has been finalised based on the outputs of the KAP survey and input from stakeholders. This Strategy will guide and increase knowledge mobilisation and information exchange among stakeholders on sargassum impacts, management and use for the three OTs, and to ensure effective dissemination of results, lessons and recommendations related to activities under the project. See Appendix 8 for a copy of draft strategy as means of verification.</p> <p>2.2 Three (3) awareness products – a booklet on sargassum best practices for fishers and a best-practices poster for the tourism sector were printed during year 2 for dissemination to stakeholders within OTs and an ArcGIS StoryMap on the application of drone technology in sargassum management developed. See Appendix 9 for copies of these awareness projects, and click here to view the ArcGIS StoryMap. Activity 2.2 will continue in year 3 with the development and dissemination of at least 3 additional products.</p>	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
	<p>3 practical activities (e.g. beach clean-ups and local expos) organised across the OTs to raise awareness of forecasts, impacts of sargassum influxes and management best practices, targeting at least 75-100 persons in each OT including 50% women</p> <p>2.4 By the end of the project, at least 1 peer exchange facilitated among coastal and marine resource managers and users in the 3 OTs and other OECS Members to share experiences, best practices and innovations for adapting to sargassum influxes</p>	<p>2.3 This activity will take place in year 3.</p> <p>2.4 This activity is planned for year 3, however there is a risk of completion due to the high cost of regional travel due to rapid inflation.</p>	
Activity 2.1 Conduct baseline KAP survey in each OT at start of project		KAP surveys completed and findings validated by stakeholders. See Appendix 2 KAP survey report as evidence. Appendix 7 contains the presentations and Jamboard notes from the validation workshop.	N/A
Activity 2.2 Design project communications and engagement strategy (based on KAP surveys and desk-based reviews and scoping under output 1)		The project Communication and Engagement Strategy was finalised. See Appendix 8 for copy of the Strategy as evidence.	
Activity 2.3 Develop and disseminate knowledge products for awareness raising on sargassum forecasts, impacts and management strategies in each OT, including via CANARI's and partners' websites/online platforms		Three (3) awareness products – a booklet on sargassum best practices for fishers and a best-practices poster for the tourism sector were printed	Activity 2.2 will continue in year 3 with the development of at least 3 additional awareness products.

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
		<p>during year 2 for dissemination to stakeholders within OTs and an ArcGIS StoryMap on the application of drone technology in sargassum management developed.</p> <p>See Appendix 9 to access samples of the printed awareness products, and here for a link to the ArcGIS StoryMap.</p>	
Activity 2.4 Organise at least 1 awareness-raising activity on best practices and innovations for managing sargassum influxes in each OT (e.g. beach clean-up/local expo)		N/A	Activity will take place in year 3.
Activity 2.5 Facilitate at least 1 peer exchange visit for sharing lessons and best practices in managing sargassum influxes among OTs and other OECS Members		N/A	Activity will take place in year 3.
Activity 2.6 Conduct KAP survey in each OT at end of project (combined with economic impacts survey)		N/A	Activity will take place in year 3.
<p>Output 3. Sargassum management plans developed and implemented using a multi-level, participatory process to address coastal and marine biodiversity and livelihood risks at local and territorial levels in Anguilla, BVI and Montserrat</p>	<p>3.1 By the end of year 2, a sargassum management plan developed/updated for each OT, identifying priority coastal areas to target and actions, stakeholders' roles and responsibilities for monitoring, collection, removal and rehabilitation of each priority area, required resources, and coordination mechanism</p> <p>3.2 By the end of year 2, at least 1 training workshop designed and</p>	<p>3.1 Sargassum Adaptive Management Strategies⁶ have been developed for each OT, identifying the priority coastal areas to target and actions, stakeholders' roles and responsibilities for monitoring, collection, removal and rehabilitation of each priority area, required resources, and coordination mechanisms. See Appendix 10 for evidence.</p> <p>3.2 This activity was shifted to early in year 3. See Appendix 12 for the workshop agenda.</p> <p>3.3. OTs stakeholders have participated in 2 meetings of the Regional Sargassum Action Learning Network with other government, civil society, private sector, academic and technical/intergovernmental agency stakeholders working in the Eastern Caribbean region. This has supported knowledge</p>	

⁶ Strategies were developed as opposed to plans because these provide an overarching framework of the principles, scope, institutional arrangements, financial considerations as well as details of the actions and operations required at each stage for sargassum adaptive management in each OT. Plans are more appropriate for site level as they are tailored to the unique vulnerabilities, sensitivities and adaptive capacities at each local site. The SAMS provide templates which can be used to develop site-level plans.

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
	<p>held in each OT on management best practices for sargassum influxes, targeting at least 20-30 coastal and marine resource managers, fisherfolk and tourism enterprises in each OT, with involvement of at least 33% women</p> <p>3.3 By the end of the project, at least 6 action learning and/or coaching sessions to support practical management actions in the OTs facilitated targeting 50-75 government agencies, researchers and civil society organisations across the 3 OTs and have built their capacity to implement sargassum management using best practices, with involvement of at least 33% women</p>	<p>exchange, learning and partnerships to improve management and adaptation to sargassum influxes. See Appendix 4 for report of latest meeting, including OT representatives, as means of verification.</p>	
<p>Activity 3.1 Draft or update sargassum management plans for each OT (drawing on desk-based reviews and scoping under output 1)</p>		<p>Sargassum Adaptive Management Strategies (SAMS)⁷ have been developed for each OT. See Appendix 10 for copies of these strategies as evidence.</p>	<p>N/A</p>
<p>Activity 3.2 Conduct 1-day workshop to review draft or revised sargassum management plans and multi-stakeholder mechanism to enable effective implementation</p>		<p>A virtual workshop was held in January, 2023 to provide an overview of the sargassum adaptive management strategies and to obtain stakeholder input into their design. See Appendix 7 for evidence.</p>	<p>N/A</p>

⁷ Strategies were developed as opposed to plans because these provide an overarching framework of the principles, scope, institutional arrangements, financial considerations as well as details of the actions and operations required at each stage for sargassum adaptive management in each OT. Plans are more appropriate for site level as they are tailored to the unique vulnerabilities, sensitivities and adaptive capacities at each local site. The SAMS provide templates which can be used to develop site-level plans.

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
Activity 3.3 Finalise sargassum management plans for OTs, including resource mobilisation, multi-stakeholder mechanism and stakeholder engagement strategies to support effective implementation		Final draft SAMS was developed. See Appendices 10 for evidence.	These will be further refined by partners during year 3 based on feedback from stakeholders and lessons learned during implementation.
Activity 3.4 Design and facilitate a 2-3-day training of trainer workshop in each OT on best practices for sargassum collection, removal and rehabilitation of affected areas targeting coastal and marine managers and users		This activity was shifted to year 3.	Will be completed in the first quarter of year 3.
Activity 3.5 Facilitate at least 4 virtual regional action learning sessions for knowledge sharing and problem-solving on operationalising sargassum plans and coordination mechanisms among OTs and other OECS Members		OTs stakeholders have participated in 2 meetings of the Regional Sargassum Action Learning Network with other government, civil society, private sector, academic and technical/intergovernmental agency stakeholders working in the Eastern Caribbean region. See Appendix 4 for report of latest meeting, including OT representatives, as means of verification.	OT representatives will continue to participate in Network meetings on a quarterly basis in year 3.
Activity 3.6 Provide technical assistance/coaching to initiate management plan implementation in each OT via clean-ups (combined with activity 2.4), storage/deposit at designated areas and beach rehabilitation using established protocols		N/A	Activity will begin in year 3.

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

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
<p>Impact: Enhanced management and adaptation to risks associated with sargassum influxes to protect critical coastal and marine biodiversity and associated livelihoods in Anguilla, British Virgin Islands (BVI) and Montserrat (Max 30 words)</p>			
<p>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 (Max 30 words)</p>	<p>0.5 By the end of the project, a sargassum research and monitoring framework developed and being used by local stakeholders in each of the three OTs to collect local and scientific information on sargassum influxes, ecological and socio-economic impacts, practices for management (removal, uses and coastal and marine ecosystem rehabilitation), and management outcomes, which is suitable for integration into the OTs’ national GIS/information systems</p> <p>0.6 By the end of the project, at least 300 coastal and marine resource managers and users (including government agencies, CSOs, fisherfolk, tourism enterprises and research institutions) across the three OTs demonstrate enhanced knowledge and skills to engage in sargassum management, including at least 50% women</p> <p>0.7 By the end of the project, a sargassum management plan</p>	<p>0.1a Sargassum research and monitoring frameworks</p> <p>0.1b Research reports on collection of local and scientific knowledge</p> <p>0.2a Baseline and end of project KAP studies</p> <p>0.2b Project reports on number, gender and type of stakeholders engaged in activities</p> <p>0.3 Updated/new sargassum management plans for each of the 3 OTs</p> <p>0.4a Reports by OT governments on economic impacts of influxes; survey of economic impacts on fisheries and tourism sector stakeholders pre-project and end of project</p> <p>0.4b Annual budgets and financial reports of partner agencies in the 3 OTs</p>	<p>Sargassum influxes occur during the project timeframe</p> <p>Target stakeholders have the time and are sufficiently interested and willing to participate in capacity building and management planning interventions</p> <p>Suitable local counterparts are available and interested in being trained and being part of the project implementation team</p> <p>COVID-19 pandemic national restrictions in the OTs will still allow practical actions by local stakeholders in the field</p> <p>COVID-19 pandemic international travel restrictions will allow for travel to the 3 OTs by September 2022 by the UWI-CERMES and CANARI teams to conduct the drone training and facilitate application of participatory ICT tools in the OTs. Otherwise, stakeholders will be willing to engage in virtual trainings and workshops.</p> <p>Hurricanes, volcanic eruptions and other natural disasters or political or socio-economic upheavals do not</p>

	<p>developed/strengthened in each of the three OTs to guide strategic and coordinated multi-level responses to sargassum influxes (including removal, use and rehabilitation for biodiversity protection or restoration)</p> <p>0.8 By the end of project, cost savings and other economic benefits for each of the three OTs from improved early warning and sargassum management actions, including partner agencies and fisheries/tourism stakeholders</p>		<p>overly disrupt implementation of project activities</p> <p>Knowledge exchange opportunities under other initiatives (SargAdapt and OECS' SARG'COOP projects) occur during the timeframe of this project</p> <p>Management actions implemented during the project are of sufficient scale that economic impacts can be detected</p>
<p>Outputs:</p> <p>1. Local and scientific knowledge documented and available on the ecological and socio-economic impacts of sargassum influxes in Anguilla, BVI and Montserrat and management best practices to inform decision-making</p>	<p>1.1 By the end of year 1, desk review and scoping conducted in each OT with local field team, including assessment of ecological and socio-economic impacts, gendered impacts and management practices</p> <p>1.2 By the end of year 1, participatory sargassum research and monitoring framework designed for each OT for ongoing collection of local and scientific information on sargassum influxes, ecological and socio-economic impacts, practices for management (removal, use and coastal and marine ecosystem rehabilitation), and management outcomes</p> <p>1.3 By the end of year 2, at</p>	<p>1.1 3 Scoping reports, including findings from desk review, key informant interviews and site profiles</p> <p>1.2 3 Participatory research and monitoring framework</p> <p>1.3a 3 Training workshop reports including agenda, attendance register and pre- and post-evaluations</p> <p>1.3b Equipment and software provided to the 3 OTs to support sargassum monitoring</p> <p>1.4 Aerial photographs from drones, which are in digital format and geo-referenced for integration into GIS national information databases</p> <p>1.5 Local knowledge on sargassum impacts and management</p>	<p>Data and information on the impacts of sargassum influxes and management practices is available and easily accessible in each OT</p> <p>Target stakeholders have the time and are sufficiently interested and willing to engage in training, participatory research and monitoring exercises, including sharing local knowledge</p> <p>Regional travel to conduct the training is possible given COVID-19 restrictions or can be done virtually</p> <p>Local field activities are possible given COVID-19 restrictions</p>

	<p>least 20 coastal and marine resource managers and users (with at least 50% women) in each OT trained and receive follow-up technical support and coaching in the use of drones and participatory ICT tools to collect scientific and local information and map and monitor sargassum influxes, impacts, and management practices and outcomes</p> <p>1.4 By the end of the project, trained resource managers and users produce at least 1 series of aerial photographs from drones for each OT, which can be integrated into the territories' GIS/national information system, to support mapping and monitoring of sargassum influxes and management outcomes</p> <p>1.5 By the end of the project, trained resource managers and users implement at least 1 process to collect local knowledge on influxes, impacts and management practices and outcomes in each of the 3 OTs</p>	documented	
2. Knowledge communicated and stakeholders engaged in practical activities for awareness raising and engagement among coastal and marine resource	2.4 By the end of year 1, a communication and engagement plan developed for the three OTs, identifying	2.1a Baseline and end of project KAP studies 2.1b Communication and stakeholder engagement plan	Target stakeholders have the time and see the value in participating in engagement and knowledge exchange activities

<p>managers and users on sargassum impacts and management best practices in Anguilla, BVI and Montserrat</p>	<p>target audiences, key messages and appropriate communication products and pathways, and strategies for stakeholder engagement on actions under outputs 1, 3 and 4</p> <p>2.5 By the end of the project, at least 6 products (e.g. participatory video/photostories, radio infomercials/podcasts and infographics) developed and disseminated</p> <p>2.6 By the end of the project, at least 3 practical activities (e.g. beach clean-ups and local expos) organised across the OTs to raise awareness of forecasts, impacts of sargassum influxes and management best practices, targeting at least 75-100 persons in each OT including 50% women</p> <p>2.7 By the end of the project, at least 1 peer exchange facilitated among coastal and marine resource managers and users in the 3 OTs and other OECS Members to share experiences, best practices and innovations for adapting to sargassum influxes</p>	<p>2.2 Awareness raising products and dissemination records (including CANARI's social media and website reports)</p> <p>2.3 Reports of engagement activities, including number, gender and type of participants</p> <p>2.4 Reports of peer exchanges, including number, gender and type of participants</p>	<p>Local field activities are possible given COVID-19 restrictions</p> <p>Target stakeholders willing to participate and able to travel to other countries (e.g. have the requisite travel documents including passports and visas and meet COVID-19 travel protocols) for exchanges with their Eastern Caribbean/Caribbean peers</p>
<p>3. Sargassum management plans developed and implemented using a multi-level, participatory process to address coastal and marine biodiversity and livelihood risks at</p>	<p>3.4 By the end of year 2, a sargassum management plan developed/updated for each OT, identifying priority coastal areas to target and actions,</p>	<p>3.1 Sargassum management plans</p> <p>3.2 Training workshop reports, including agenda, attendance</p>	<p>Target stakeholders, including local CSOs, have the time, capacity and interest to participate in training workshops and sargassum management planning and actions</p>

<p>local and territorial levels in Anguilla, BVI and Montserrat</p>	<p>stakeholders' roles and responsibilities for monitoring, collection, removal and rehabilitation of each priority area, required resources, and coordination mechanism</p> <p>3.5 By the end of year 2, at least 1 training workshop designed and held in each OT on management best practices for sargassum influxes, targeting at least 20-30 coastal and marine resource managers, fisherfolk and tourism enterprises in each OT, with involvement of at least 33% women</p> <p>3.6 By the end of the project, at least 6 action learning and/or coaching sessions to support practical management actions in the OTs facilitated targeting 50-75 government agencies, researchers and civil society organisations across the 3 OTs and have built their capacity to implement sargassum management using best practices, with involvement of at least 33% women</p>	<p>register and pre- and post-evaluations</p> <p>3.3 Reports on action learning and coaching sessions, including number, gender and type of stakeholders engaged and lessons learned in managing sargassum influxes</p>	<p>Regional travel to facilitate training is possible given COVID-19 restrictions or can be done virtually</p> <p>Sargassum management practices/ solutions can be identified and implementation initiated by resource managers and users within the project budget and timeframe. To help mitigate risk, practices that are low-risk and fairly established will be the focus for initial implementation of plans in Year 3, such as beach clean-up, storage/deposit and rehabilitation of affected areas.</p> <p>Local field activities are possible given COVID-19 restrictions</p>
<p>Activities:</p> <p>Output 1</p> <p>1.1 Conduct desk-based review for scoping and design of participatory sargassum research and monitoring framework, including identifying key information gaps and research/management capacity needs</p> <p>1.2 Conduct scoping, including interviews/economic impacts surveys, site visits capturing current photos and sourcing past photos of strandings, and develop reports and site profiles for affected areas</p> <p>1.3 Design participatory sargassum research and monitoring framework for each OT to address key information gaps based on desk-based review and scoping, including a focus on ecological, socio-economic and health impacts from sargassum influxes associated with nearshore, mid-shore and offshore areas</p>			

- 1.4 Procure drones/related software and train OT partner agencies, CSOs and local communities to conduct drone monitoring in each OT using standardised monitoring protocol
- 1.5 Conduct virtual 1-2 day training in each OT for partner agencies, CSOs and local communities on participatory ICTs to capture local knowledge and practices
- 1.6 Provide technical support for drone monitoring and other research and monitoring activities in Years 2-3 by OT government agencies, CSOs and local research organisations
- 1.7 Provide targeted training and virtual coaching to OT partner and other key agencies to integrate drone and other data into national GIS/information databases
- 1.8 Revise and finalise participatory sargassum research and monitoring framework for each OT based on key findings, experiences and lessons during project

Output 2

- 3.1 Conduct baseline KAP survey in each OT at start of project (combined with economic impacts survey of fisheries/tourism stakeholders under output 1.2)
- 3.2 Design project communications and engagement strategy (based on KAP surveys and desk-based reviews and scoping under output 1)
- 3.3 Develop and disseminate knowledge products for awareness raising on sargassum forecasts, impacts and management strategies in each OT, including via CANARI's and partners' websites/online platforms
- 3.4 Organise at least 1 awareness-raising activity on best practices and innovations for managing sargassum influxes in each OT (e.g. beach clean-up/local expo)
- 3.5 Facilitate at least 1 peer exchange visit for sharing lessons and best practices in managing sargassum influxes among OTs and other OECS Members
- 3.6 Conduct KAP survey in each OT at end of project (combined with economic impacts survey)
- 3.7

Output 3

- 3.8 Draft or update sargassum management plans for each OT (drawing on desk-based reviews and scoping under output 1)
- 3.9 Conduct 1-day workshop to review draft or revised sargassum management plans and multi-stakeholder mechanism to enable effective implementation
- 3.10 Finalise sargassum management plans for OTs, including resource mobilisation, multi-stakeholder mechanism and stakeholder engagement strategies to support effective implementation
- 3.11 Design and facilitate a 2-3-day training of trainer workshop in each OT on best practices for sargassum collection, removal and rehabilitation of affected areas targeting coastal and marine managers and users
- 3.12 Facilitate at least 4 virtual regional action learning sessions for knowledge sharing and problem-solving on operationalising sargassum plans and coordination mechanisms among OTs and other OECS Members
- 3.13 Provide technical assistance/coaching to initiate management plan implementation in each OT via clean-ups (combined with activity 2.4), storage/deposit at designated areas and beach rehabilitation using established protocols

Annex 3: Standard Indicators

Table 1 Project Standard Indicators

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
DPLUS-A01	By the end of the project, at least 300 coastal and marine resource managers and users (including government agencies, CSOs, fisherfolk, tourism enterprises and research institutions) across the three OTs demonstrate enhanced knowledge and skills to engage in sargassum management, including at least 50% women.	Number of people from key national and local stakeholders completing structured and relevant training ⁸ .	People	Women Men		87 172			150 150
DPLUSA04	By the end of year 1, at least 20 coastal and marine resource managers and users (with at least 50% women) in each OT trained and receive follow-up technical support and coaching in the use of drones and participatory ICT tools to collect scientific and local information and map and monitor sargassum influxes, impacts, and management practices and outcomes	Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training.	People	Gender; Stakeholder group: public sector, civil society, private sector		20		21	20
DPLUS -B03	By the end of the project, a sargassum management plan developed/strengthened in each of the three OTs to guide strategic and coordinated multi-level responses to sargassum influxes (including removal, use and	Number of new/improved community management plans available and endorsed*	Number	-			3	3	

⁸ Where possible also show alongside the indicator the number of total training-weeks aggregated across all people trained. A training week is defined as one that involves at least 30 hours of tuition/ training per week. Below 30 hours, training weeks should be calculated on a pro-rata basis.

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
	rehabilitation for biodiversity protection or restoration)								
DPLUS -C01	By the end of the project, a sargassum research and monitoring framework developed and being used by local stakeholders in each of the three OTs to collect local and scientific information on sargassum influxes, ecological and socio-economic impacts, practices for management (removal, uses and coastal and marine ecosystem rehabilitation), and management outcomes, which is suitable for integration into the OTs' national	Number of best practice guides and knowledge products ⁹ published and endorsed ¹⁰ .	Number	-			1		1
DPLUS -D02	By the end of project, cost savings and other economic benefits for each of the three OTs from improved early warning and sargassum management actions, including partner agencies and fisheries/tourism stakeholders	Number of people whose disaster/climate resilience has been improved.	People/ Household.	Income, disaster/climate resilience ¹¹					

⁹ Technical/programmatic guides, for example: working with marginalised communities, gender best practices, developing enterprises, programme management etc. Can include written and verbal best practices guides, webinars, briefings.

¹⁰ Endorsed by a third party to demonstrate an independent assessment has been made, and the plan is considered viable and ready for implementation.

¹¹ See ICF KPI 4 Methodology Note on "Number of people whose resilience has been improved"

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

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