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**IOC/SC-IOCARIBE-XVI/Inf. 5**

Cartagena, April 2021

Original: English



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**

(of UNESCO)

**Sixteenth Session of the UNESCO IOC Sub-Commission for  
the Caribbean and Adjacent Regions (IOCARIBE)  
Assembly**

(Virtual Meeting, May 3-6, 2021)

**SARGASSUM AND OIL SPILLS MONITORING FOR THE CARIBBEAN AND ADJACENT  
REGIONS  
2019 – 2021**

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*Agenda Item 6. Review and Reporting of Regional Programmes, Projects and Working Groups, April 2019 – April 2021*

**PROJECT REPORT – MAY 2021**

**SARGASSUM AND OIL SPILLS MONITORING FOR THE CARIBBEAN AND ADJACENT REGIONS**

The Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO)'s Sub-Commission for the Caribbean and Adjacent Region (IOCARIBE), GEO Blue Planet and other partners have been working to support the development monitoring capabilities for "other coastal hazards" to augment the Caribbean Early Warning System for Tsunamis and other Coastal Hazards. Hazards that have been focused on include Sargassum and oil spills which were identified by regional stakeholders as priorities and can both be detected with freely available satellite data.

**i Project Objectives**

The overall objectives of the project are to:

- Work with stakeholders at regional and local scales to identify data and information gaps;
- Provide networking and coordination support to connect the marine hazard community;
- Identify best practices related monitoring and management to inform policy recommendations and to measure the impact of mitigation strategies.

The project is focused on meeting these objectives for the topics of Sargassum and oil spills. To meet these objectives, IOCARIBE has developed partnerships with various groups who are supporting the development and implementation of the project.

## ii Progress & Activities During 2019 – 2021

### *Sargassum*

During 2019, IOCARIBE and GEO Blue Planet were approached by AtlantOS about expanding the Sargassum activity to include the West Africa due to the trans-Atlantic nature of the Sargassum issue. As a result, the Sargassum project was expanded to include the entire Tropical Atlantic and additional partners were brought on board including AtlantOS, the Atlantic International Research (AIR) Centre and the Specially Protected Areas and Wildlife (SPAW) Sub-Programme of the United Nations Environment Programme (UNEP) Cartagena Convention Secretariat, and IOCAFRICA.

A summary of major partner activities between 2019 and 2021 is outlined below.

- Sargassum Information Hub: To meet the need for centralized access to information and tools for the monitoring and management of Sargassum, the Sargassum Information Hub was created. The hub development was supported primarily with resources provided by the AIR Centre and the GEO Blue Planet Initiative.
- Sargassum Webinar Series: UNEP together with partners IOC-UNESCO and the two Regional Seas under the Cartagena and Abidjan Conventions started a webinar series to highlight key scientific, societal and ecological challenges, responses to prevent impacts and trans-disciplinary and trans-institution collaboration around Sargassum in the context of the Caribbean and West African seas.
  - 26 May 2020: Sargassum in the Caribbean and West Africa – Key Challenges, Responses and Collaborations.
  - 21 July 2020: Webinar – the Science of Sargassum
  - 22 September 2020: Sargassum challenges, responses and collaboration in West Africa
  - 30 November 2020: Sargassum challenges, responses and collaboration in the Caribbean
  - 22 – 22 January 2021: Data collecting tools by NOAA’s Sargassum Watch
- NOAA Sargassum Data: NOAA’s CoastWatch program is working to transition Alternative Floating Algae Index (AFAI) fields currently generated by USF along with Maximum Chlorophyll Index (MCI) products in order to produce and distribute satellite-based Sargassum products on a regular basis. NOAA CoastWatch is also developing an in situ database for use in validation of Sargassum satellite monitoring products using a citizen science data collection tool (the Pelagic Sargassum Report). IOCARIBE is working along with IOCAFRICA to inform NOAA about user needs and increase submissions to the database.
- NOAA Experimental Inundation Reports: USF, AOML and the NOAA CoastWatch node for the Caribbean and Gulf of Mexico are currently collaborating to produce Experimental Weekly Sargassum Inundation Reports for the Gulf of Mexico, Central America, Greater Antilles, Lesser Antilles and South America. IOCARIBE worked with GEO Blue Planet to disseminate these and other inundation reports via the Sargassum Information Hub.
- Best Practices: Initiated a collaboration with the Ocean Best Practices Initiative to compile guidelines on best practices related to sargassum management.

### *Oil Spills*

During 2019, IOCARIBE and GEO Blue Planet were approached by the Regional Marine Pollution Emergency, Information and Training Centre – Caribe about the need for a GIS-based information toolkit for the region that includes information such as the location of platforms, ports, past oil spills, potential current spills and environmentally sensitive areas. IOCARIBE and GEO Blue Planet worked to identify AmeriGEO as the host of such a service. IOCARIBE and GEO Blue Planet also worked to identify partners in the region that had the capabilities and software to implement analysis of oil spill imagery. A training partnership with Trinidad and Tobago’s Institute of Marine Affairs, Trinidad and Tobago’s Institute for Marine Affairs (IMA), Ministry of Energy and Energy Industries (MEEI) and Environmental Management Authority (EMA) was subsequently established in early 2021.

A summary of major partner activities between 2019 and 2021 is outlined below.

- [Wider Caribbean Oil Spill Information System Workshop](#): GEO Blue Planet hosted the workshop in collaboration with AmeriGEO, IOCARIBE IOC UNESCO, NOAA Satellite Analysis Branch, and RAC-REIMPETC. The goal of the workshop was to discuss the development of an AmeriGEO oil spill information system for the Wider Caribbean.
- [Oil Spill Analysis Training](#): Through the IOCARIBE & GEO Blue Planet partnership, a training was arranged for 20 trainees across IMA, MEEI and EMA on satellite oil spill monitoring. The training is currently underway and is being conducted by experts from NOAA's Satellite Analysis Branch.
- [Oil Spill Information Toolkit](#): In collaboration with AmeriGEO, a GIS-based oil spill information toolkit is being developed. A pilot project for the toolkit is currently being discussed with IMA and GEO Blue Planet.

### iii Funding Considerations & Future Funding Plans

Resourcing for the project has relied to date on in kind contributions from project partners. Future contributions from member countries (either financial, in kind staff support or data sharing) will allow the project to move forward in a faster and more efficient manner.

### iv Future Workplan and Budget for 2021 – 2022

#### *Sargassum*

- [Activities for 2021 – 2022](#)
  - Translate the Sargassum Information Hub into Spanish and French
  - Produce country pages that include local information about Sargassum in collaboration with regional and local stakeholders
  - Continue to expand collaborations with West Africa
  - Work with NOAA to improve sustained delivery of Sargassum satellite products
  - Collaborate with UNEP, CERMES, AtlantOS, the Ocean Best Practices Initiative and other partners to further develop and share management and mitigation guides
- [Budget for 2021 – 2022](#)
  - \$200,000 (including in kind contributions)

#### *Oil Spills*

- [Activities for 2021 – 2022](#)
  - Complete satellite oil spill monitoring for partners in Trinidad in Tobago
  - Work with AmeriGEO and other partners to develop a pilot project for the GIS-based oil spill information toolkit
- [Budget for 2021 – 2022](#)
  - \$200,000 (including in kind contributions)

### v UN Decade Involvement

Project partners have discuss submitting the Sargassum activity to the UN Decade for consideration as a UN Decade project. Project partners are also participating in various Decade Planning Groups for the Western Tropical Atlantic.