



INTPA-NEAR Environment & Climate Week

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Brussels, Belgium



Blue economy as an EU response to regional environmental challenges

Case of sargassum in the Caribbean

Human created natural disaster

The Sargassum is a brown alga originally found in the Sargasso Sea, located in the Gulf of Mexico, with an initial limited geographic area.

A self sufficient ecosystem : Major floating biodiversity reserve and dynamic habitat (hundreds of species living in the sheets of seaweeds in high seas). Brings shelters and nutrients in normally poor seabeds.

Since 2011, the flow of Sargassum is becoming an issue in all Caribbean shores. For example, in Guadeloupe, an average of 80,000 tons/year of algae during the period of strandings.

Causes still debated, but main causes include :

1. Run-off from major rivers (mississipi, Congo, Amazon), fueling nutrients in high seas ;
2. Climate related modification of oceans currents.

Impacts : Toxic H_2S and NH_3 due to biomass degradation



Challenges and EU Response

1. Understanding the dynamics and drivers of sargassum
2. Improve predictability and preparedness
3. Facilitate investment to respond create viable opportunities

Response includes aspects of DRR, research and regional cooperation, private investment mobilization

Reinforce research and cooperation

Sargood Programme - Université des Antilles (Guadeloupe) - University of the West Indies (Trinidad and Tobago)

Better manage biological fouling by algae and develop methods for recovering biomass

- 1) the optimization of Sargassum collection methods,
- 2) the processing and use of biomass with a view to its valorization in order to produce value-added products with multiple uses.
 - study of different strategies for valorizing the products and by-products of the Sargassum biorefinery,
 - use of sargassum to develop and evaluate innovative materials and methods,
 - identification of native fauna and flora associated with the growth of sargassum.

Reinforce research and cooperation

EU-Caribbean cooperation on Marine research under the Horizon Europe research programme

- Assessment of research infrastructures in the Caribbean
- Identification and prioritisation of common research areas of mutual interest and benefit.
- Create the conditions for the sustainable multi-stakeholder policy dialogue on S&T between the European Union, its member states, its associated states and the Caribbean Region
- Reinforce collaboration with the Caribbean region on the priorities of the All-Atlantic Ocean Research and Innovation Alliance Declaration signed in 2022

Support observation and alert instruments

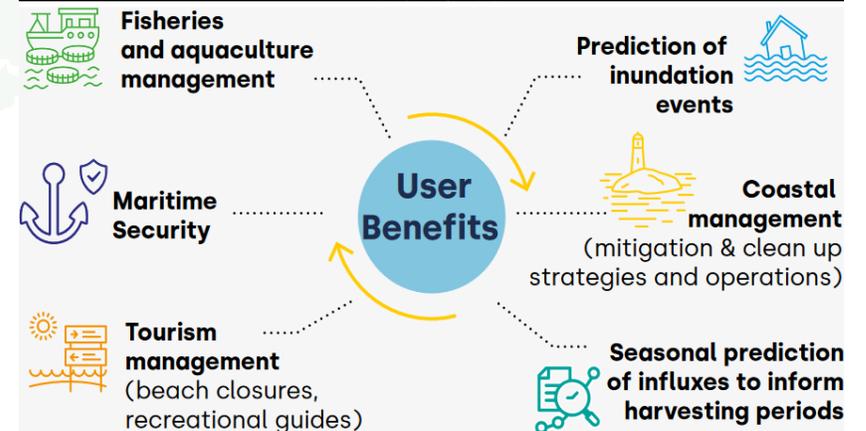
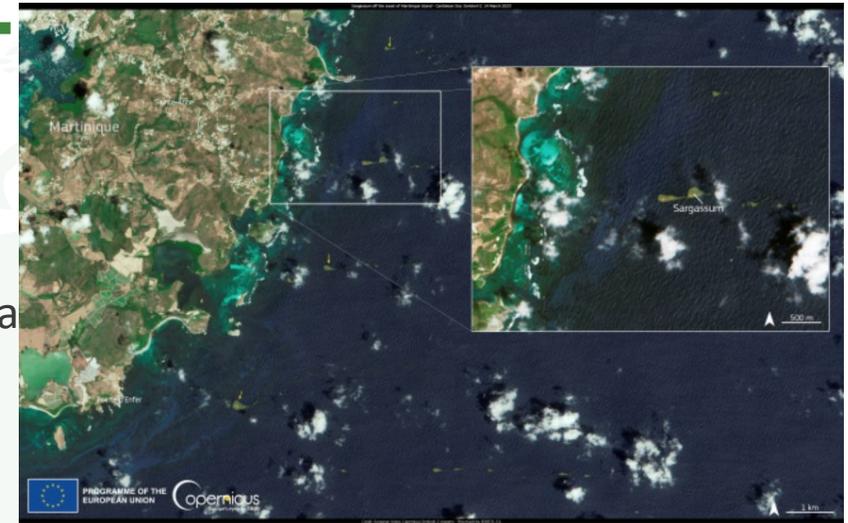
Sarg'coop programme

Monitoring and forecasting of sargassum groundings

Assessment of the risk and impact of Sargassum patches and fundamental knowledge on Sargassum

Characterization of pollutions and impacts of technical solutions

From risk to opportunity, different ways of valorization: 4 (products, technical solutions)



Support to investment

Study to determine cost and investment potential of the commercialisation of sargassum

Support the development of economically viable solutions to address the unprecedented influxes of Sargassum, which encourage the application of blue economy principles to enhance opportunities for investment.

1. Elaborate a cost analysis of the different uses of Sargassum, to facilitate investment towards its commercialisation.
2. Determine, within the Caribbean context, viability of identified commercial applications based on estimated costs and market research.
3. Develop a commercialisation strategy inclusive of guidance on sustainable value - chains and investment portfolio development.

Support to investment

Leveraging private investment

- EFSD+ green economy windows
- EIB Caribbean Investment Facility - clean oceans initiative
- Pilot micro-projects (pilot sargassum digester in St Lucia) and support to entrepreneurship

Support regional efforts

2019 EU's Interreg Programme, the first International Conference on Sargassum was hosted in Guadeloupe

2023 New international conference in Dominican Republic

Thank you



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