UN Caribbean Environment Program in the Wider Caribbean region

A zoom on some Cartagena convention/ SPAW protocol actions

Sandrine Pivard, Director, Regional Activity Center for the SPAW Protocol (SPAW-RAC)
The Caribbean Environment Programme (CEP) was formally established by the Governments of the Wider Caribbean Region in 1981 and is now one of the oldest and most successful of the UNEP administered Regional Seas Programmes. Only Legally Binding, Regional Agreement for the Protection and Development of the Marine Environment of the Wider Caribbean Region.
The Contracting Parties shall take all appropriate measures to prevent, reduce and control:

- **Pollution from dumping**
- **Pollution from land-based sources**
- **Pollution from sea bed activities**
- **Pollutions from ship**
- **Pollution from land-based sources**

**Article 6**

Pollution from dumping

- Erosion
- Sedimentation
- Invasive species

**Article 7**

Pollution from land-based sources

- Oil spills
- Nutrients
- Sanitation
- Heavy metal
- Marine litter

**Article 8**

Pollution from sea bed activities

- Marine litter

**Article 9**

Air pollution

- Sanitation
- Heavy metal

**Article 10**

Specially protected areas and wildlife

- Oil spills
- Nutrients
- Sanitation
- Heavy metal

**Key Issues**

- HABITAT DEGRADATION
- CLIMATE CHANGE
- POLLUTION
- OVERFISHING
- WEAK GOVERNANCE
The Cartagena Convention as a regional agreement addresses several different coastal & marine environmental threats affecting the countries of the Wider Caribbean Region. Adopted in 1983, Entered into force 1986 28 Parties

Pollution from Oil Spills
Adopted in 1983
Entered into force in 1986
25 Parties

Specially Protected Areas & Wildlife (SPAW)
Adopted in 1990
Entered into force in 2000
16 Parties

Land Based Sources and Activities of Marine Pollution (LBS)
Adopted in 1999
Entered into force in 2010
13 Parties

The three Protocols to the Convention identify additional obligations for the protection and development of the Caribbean Sea and are supported by REGIONAL ACTIVITY CENTRES (RAC)
Benefits from the protocols

- Facilitate regional cooperation and guide national action to protect and sustainably manage ecosystems and species of national and regional concern
- Emphasis on ecosystem-management approach
- Provide guidance to implement provisions of related and broader agreements
- Emphasis on capacity building, awareness, community participation, scientific information
- Developed by and for governments of the region, thus its relevance to regional issues
- Parties benefit from Subprogrammes, with technical and financial assistance provided to Parties to meet the objectives
- Parties participate to the Scientific and Technical Advisory Committees (STAC) and Conference of Parties (COP)
Establishment and strengthening of MPAs
Ecosystem based management, spatial marine planning.

Preservation of threatened and endangered species
Mainly marine mammals, turtles, sharks, birds

Development of guidelines for the management of MPAS and species
Assessment and completion of the existing listings, develop cooperation between SPAW sites, questions regarding the nomination process

Preservation and sustainable use of coastal and marine ecosystems
Coral reefs (GCRMN, ICRI), mangroves, seagrass, invasive species control, sargassum, sustainable development projects

REGIONAL COOPERATION
STRENGTHENING OF PROTECTED AREAS

- Contribution to the Ecosystem Based Management project- pilot site in Dominican republic

- ECMMAN projects : Coordination of the Small Grants component of the Climate Resilient Eastern Caribbean Marine Managed Areas Network, german-funded, TNC- led

- Transatlantic North-South Cooperation Project on Marine Protected Areas : twinning projects on MPAs network and Marine Mammals

- Cooperation with OSPAR : enhance management capacity among MPAs communities
CONSERVATION OF THREATENED AND ENDANGERED SPECIES - Marine mammals -

Action Plan for the conservation of marine mammals (MMAP) in the Wider Caribbean Region:
- disseminating the principles and guidelines for WW activities,
- education: Mon Ecole Ma Baleine (“my school my whale”)
- CARI’MAM project: 3 years EU funded project with the French Biodiversity agency

Sea turtles – work with WIDECAST network
Sharks – contribution to the CMS MOU on sharks
Invasive Alien Species – lionfish
The BEST initiative: Biodiversity and Ecosystem Services in EU overseas formally not part of the SPAW program

• BEST III (3 ORs+12 OCTs in the Caribbean): ended in 2017
  – Identification of Key Biodiversity Areas
  – Definition of a Regional Investment Strategy

• BEST 2.0 (12 OCTs):
  Almost 20 projects implemented in the WCR including 7 SPAW territories and key themes: invasive species management, marine turtle conservation, coral reef restoration, lionfish control, protection of endemic species, reforestation/restoration of key areas for biodiversity, establishment of MPAs...
Sargassum
- Networking of stakeholders involved in communication/awareness, research and management of the influx
- Tentative cooperation with international organizations (ACS, GCFI, UWI, Abidjan Convention, Sargasso Sea Commission; OECS) and UNEP global Programmes

- messages connected to Sargassum influx, Sargassum detection and prediction, management technics, best practices, impacts on biodiversity…
- Shared files: Detection, posters, reports…
- about 300 participants from nearly 200 different organizations

Forum address: https://spawrac.teamwork.com
- Suscribe: sargassum.forum@gmail.com
- Developpement of **informative documents**

- « **Sargassum White Paper** - Sargassum outbreak in the Caribbean: Challenges, opportunities and regional situation » - presented to last STAC and available online

- **Severity of Sargassum outbreaks**
  - Very high
  - High
  - Medium
  - Low
  - Online research

*Data*: survey responses of National Focal Points from 28 territories of the Wider Caribbean Region, as well as satellite records and online websites.
Linkages with LBS protocol and perspectives

-coordinated by the Land-Based Sources of Marine Pollution Protocol (LBS):
  ○ Recent State of Pollution Report for the Caribbean Seas identified Sargassum as a major issue of concern requiring a coordinated approach
  ○ Marine Litter and Plastics are often found entangled in Sargassum making it an even greater problem
⇒ development of a Regional Nutrients Reduction Strategy by the Secretariat along with a Regional Habitat Restoration Strategy to assist in an integrated response to the issue and offer some lessons learned and best practices (supported by UNDP GEF CLME+ Project)

- Inventory of on-going initiatives (forecasting, management, valorisation…)
⇒ on France initiative, creation of an Ad Hoc Working Group on Sargassum to establish coordination and collaboration with relevant regional and global initiatives ? (TBC during the next COP)
- Strengthen cooperation with international bodies (ACS, GCFI, UWI, Abidjan Convention, Sargasso Sea Commission, OECS, OSPAR…) and other UN organizations (UNODC, UNDP, UNESCO, other UNEP programmes…)

- Develop projects with large network: eg in line with the MMAP through the implementation of the CARI’MAM Project and transatlantic project, or through the implementation of the CARIB-Coast Project in support of the conservation and management of mangroves and coral reefs to address coastal resilience;

- Create/ reinforce ad hoc working groups to address priorities such as
  • Support of listed protected areas, with particular attention to the ecological connectivity among sites, and strengthening of networking and capacities
  • Specific species: parrotfish and other herbivores associated with coral reefs, sea grass beds and mangroves, some sharks and rays species, also consider enhanced collaboration for regional management strategies for some listed species under the Annexes of the Protocol
  • Exemption process and reports
  • Sargassum influx
The Sargassum Regional Survey

Economic Sectors

- Tourism: 86%
- Ecology: 79%
- Fisheries: 75%
- Human Health: 43%
- Transport: 18%

Ecological Damage

- Beach Erosion: 36%
- Beach Fouling: 71%
- Coastal Dead Zones: 50%
- Dead Fish: 61%
- Dead Wildlife (-fish): 57%
Utilization of Sargassum

Data: survey responses from 22 territories that reported having a significant Sargassum issue.
Sargassum Tracking Procedures

*: Hydrogen sulphide
**: Anhydrous ammonia

Data: survey responses from 19 territories that reported having significant Sargassum issue and provided details about their tracking procedures.
<table>
<thead>
<tr>
<th>Events related to Sargassum Management since 2015</th>
<th>Date &amp; Location</th>
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<tbody>
<tr>
<td>Roundtable of MPA managers of French Antilles and Guiana</td>
<td>Saint-Martin, June 2015</td>
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<tr>
<td>Sargassum Symposium, CERMES (UWI)</td>
<td>Barbados, August 2015</td>
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<tr>
<td>Latin American and Caribbean Large Marine Ecosystems Symposium</td>
<td>Cancun, Mexico, September 2015</td>
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<td>68th GCFI annual meeting</td>
<td>Panama, November 2015</td>
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<td>First symposium of the Caribbean Sea Commission</td>
<td>Trinidad, November 2015</td>
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<td>Regional Sargassum Conference (BVI Government &amp; Virgin Unite)</td>
<td>British Virgin Islands, March 2016</td>
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<tr>
<td>69th GCFI annual meeting</td>
<td>November 2016</td>
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<tr>
<td>UN Oceans Conference</td>
<td>June 2017</td>
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<tr>
<td>70th GCFI annual meeting</td>
<td>6-10 November 2017</td>
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<tr>
<td>A&amp;M Galveston Texas University French-American</td>
<td>Galveston Texas</td>
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<tr>
<td>IOCARIBE Workshop Sargassum and Oil Spills Monitoring Pilot Project for the Caribbean Sea &amp; Adjacent Regions</td>
<td>2-4 May 2018, Mexico</td>
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<tr>
<td>Conférence de Coopération Régionale Antilles-Guyane</td>
<td>October 2018</td>
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<tr>
<td>71st GCFI Annual Meeting</td>
<td>November 2018</td>
</tr>
<tr>
<td>Second Sargassum Symposium – FAO &amp; CERMES (UWI)</td>
<td>November 2018</td>
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On-going initiatives

- Forecasting and Management
  
  - IOCARIBE (UNESCO) Workshop Sargassum and Oil Spills Monitoring Pilot Project for the Caribbean Sea & Adjacent Regions (2018-2021)
    
    ■ Early Warning System for Sargassum. Report available on Teamworks Online Platform
  
  - NOAA & AOML NOAA: Atlantic OceanWatch and Caribbean/Gulf of Mexico CoastWatch NOAA
  
  - University of South Florida and Nasa Outlook Bulletin (See top right)
  
  - CLS and NovaBlue Environment (NBE) Detection and Monitoring system with the European Space Agency (See bottom right)
  
  - UNACAR (University of Carmen, México) Sargassum detection in the Mexican Caribbean and Bank of Campeche
On-going initiatives

- Valorisation

- Sargassum Valorisation Project (Began October 2018) by the Borea Laboratory (CNRS/MNHN/SU/IRD/University of Caen Normandie/University of the Antilles)

- Research on utilization as an organic fertilizer

- Institut Technique Tropical

- Utilization of Sargassum for agricultural purposes

- Private Sector:
  - AlgaeNova, Algas Organics, Agrobioquim, AgroFora, Albioma, Biogen, Centre for Process Innovation Ltd, ELASTEC, Fulcrum Maritime Systems, Ocean Harvest Technology, SITA ESPERANCE (SUEZ), The Ocean Cleanup, Themba Biofuels Ltd