



Distr. LIMITED

UNEP(DEPI)/CAR WG.45/INF.25

1 May 2025

Original: ENGLISH

Eleventh Meeting of the Scientific and
Technical Advisory Committee (STAC) of the
Protocol Concerning Specially Protected Areas
and Wildlife (SPA)W) in the Wider Caribbean
Region

Panama City, Panama
30 June – 3 July 2025

REPORT OF THE STAC SARGASSUM WORKING GROUP

ACRONYMS

COP	Conference of the Parties
IMA	Institute of Marine Affairs of Trinidad and Tobago
NGO	Non-Governmental Organization
PA	Protected Area
RAC	Regional Activity Center
RAN	Regional Activity Network
TCU	Transitional Coordination Unit
SPAW	Specially Protected Areas and Wildlife
SPAW RAC	Regional Activity Centre for the Protocol Concerning Specially Protected Areas and Wildlife for the Wider Caribbean Region
STAC	Scientific and Technical Advisory Committee
UNEP	United Nations Environment Programme
WCR	Wider Caribbean Region
WG	Working Group
LBS	Land-Based Sources and Activities

SARGASSUM WORKING GROUP

Mandate

The SPAW STAC Working group on Sargassum had the following tasks assigned by the STAC 10:

-The Sargassum Working Group' survey Contracting Parties on their needs related to managing Sargassum influx and how such influx may affect their implementation of obligations under the SPAW Protocol and Cartagena Convention, as well as the LBS Protocol, as appropriate.

-Taking into account the findings of the survey and consultations, as well as any consultations with additional experts as appropriate, the Sargassum Working Group update and prioritize the proposed action plan of the Sargassum Working Group in UNEP(DEPI)/CAR WG.42/7 for consideration by SPAW STAC11 and COP13.

Key figures

Number of experts in the working group: 30 (13 countries + 7 invited + 2 observers)

Number of meetings of the working group: 10 virtual + 1 in-person meeting

Average number of experts per meeting: 6 for the virtual meeting and 20 for the in-person meeting

Main outcomes

- **Task 1:** UNEP(DEPI)CARWG.45INF 26 Contracting Parties needs related to managing Sargassum influx and how such influx may affect their implementation of obligations under the SPAW Protocol and Cartagena Convention, as well as the LBS Protocol-Survey analyze.

- **Task 2:** UNEP(DEPI)CARWG.45INF 27 STAC Sargassum working group updated action plan proposal and sustainable financing resources.

-**Additional point of consideration:** definition of "Sargassum inundation".

Role of SPAW-RAC

Chair of the working group for UNEP CEP

I. INTRODUCTION

1. The first Meeting of the Contracting Parties (COP) of the SPAW Protocol, Havana (24-25 September 2001), in its Decision I.7, awarded "specific mandates to the STAC for the creation of *ad hoc* Working Groups to deal with those themes that, owing to their complexity or level of specialization, thereby require [special attention]."
2. Four (4) such ad hoc working groups now exist dedicated respectively to Protected Areas, to Species, to Exemptions and the most recent one, to Sargassum. Working Groups follow Terms of

Reference approved intersessionally by the STAC in 2022. They are composed of experts designated for their acknowledged scientific and technical competence, their availability and readiness to be responsive in the group, and to cover as much as possible the geographical and thematic scope of the working group. Experts may be designated by Contracting parties and observers (e.g., non-member States, civil society organizations), and Working Groups may invite additional experts to provide advice on specific subjects or tasks as needed. Once designated, experts participate in their individual capacities. The working groups are currently all chaired by the SPAW RAC. Whenever possible, Working Group outcomes, including recommendations or reports, are to be drafted by consensus of the designated experts. In the event that consensus among the Working Group designated experts cannot be reached on a particular outcome, including recommendations, the Working Group Chair includes a description of the full diversity of designated expert opinions in any communications, reports, or other documents transmitted to the STAC.

I.1 Mandate and composition

3. SPAW STAC10 assigned the following tasks to the ad hoc Working group on Sargassum:
 - a. **Mandatory tasks:**
 - Survey Contracting Parties on their needs related to managing Sargassum influx and how such influx may affect their implementation of obligations under the SPAW Protocol and Cartagena Convention, as well as the LBS Protocol, as appropriate.
 - Taking into account the findings of the survey and consultations, as well as any consultations with additional experts as appropriate, update and prioritize the proposed action plan of the Sargassum Working Group in UNEP(DEPI)/CAR WG.42/7 for consideration by SPAW STAC11 and COP 13.
4. Taking into account the transversality of the Sargassum topic and aligned with COP17/IGM20 decision 9, the current Sargassum working group is composed of 20 experts designated by 13 countries, 2 nominated by observers and 7 invited from LBS protocol (Appendix I).

II. WORK CONDUCTED DURING THE BIENNIUM 2023-2024

TASK 1 - The Sargassum Working Group Survey Contracting Parties on their needs related to managing Sargassum influx and how such influx may affect their implementation of obligations under the SPAW Protocol and Cartagena Convention, as well as the LBS Protocol, as appropriate.

a. Methodology

5. On March 22, 2024, a virtual kick-off meeting with the Sargassum Working Group experts was organized by SPAW-RAC to launch Task 1. Following a presentation of the working group's functioning, tasks and timeline, SPAW-RAC presented STAC 10's request for a stakeholder survey on the impact of Sargassum influxes on the commitments of the Cartagena Convention, the SPAW Protocol and the LBS Protocol. After this meeting the experts were invited to think about ways to approach a survey and survey report. For this purpose, they had at their disposal a series of documents available on Google Drive, including "UNEP(DEPI)CARIG.46-3_EN_Decision of the Meeting_final_SPAWCOP12_updated", the "WG.42.INF.35-en-sargassum white paper", the "WG.42-7-en sargassum working group action plan EN", and the draft survey document were shared by SPAW-RAC, as well as previous recommendations of STAC.
6. During the second meeting on April 29 2024, SPAW-RAC proposed a working method consisting in reviewing the documents provided on the Drive and modifying them in track changes mode to gather comments from the experts. During the meetings, the experts completed and revised the draft "Sargassum survey" document directly online and in the virtual meeting room. Some major structural additions were made. The SPAW-RAC took note of the restructuring requests, including asking questions pertinent to the Protocol before the Convention, as well as the wording changes in the questions, notably in parts B and C of the document.
7. The survey, drawn up by the working group, was shared by the SPAW secretariat with the Contracting Parties at the end of June-beginning of July. The SPAW secretariat then sent out a series of reminders, and the SPAW RAC finally received 12 completed questionnaires from the 26 contracting parties to the Cartagena Convention.
8. The third meeting, on September 4th was devoted to launching the analysis of survey results in order to work on the report. For this purpose, experts had at their disposal a series of documents available on Google Drive among which, the final survey in English, French and Spanish, a tracking tool of survey reception, a draft table on Survey responses gathering, Draft figures of some survey responses and the folder with all the survey responses from contracting parties were shared by SPAW-RAC.
9. Experts highlighted that geographical coverage is certainly not total, but it's already a good result to have 13 responses from Contracting Parties, with a great deal of detail in the answers to the questionnaires. Mention was made of the difficulty of combining the political framework to which the SPAW protocol working group is subject with the fact that the countries have very different

geographical situations tens of thousands of kilometers apart, and that Sargassum influxes are obviously not the same depending on location.

10. The experts suggested dividing the report into several parts to divide up the work and facilitate analysis. The aim was to highlight the results of this survey on a regional scale. As a SPAW Report, it was important to maintain neutrality and objectivity in the analysis, and also to note any response bias.

SECTION B: Countries Needs

SECTION C: SPAW Protocol

SECTION D: LBS Protocol

SECTION E: Cartagena Convention

11. The fifth meeting, on October 16th 2024, consisted in re-reading the draft report on the survey, refining the analyses and harmonizing the figures, and adding new information. Experts were invited to complete and re-read the report. The sixth meeting, on November 15th 2024, provided an opportunity for a joint re-reading, identifying gaps and drafting an introduction together. SPAW-RAC drafted a proposed conclusion, including Expert's comments.

b. Outcomes and highlights

12. The survey captured important information from half of the 26 Contracting Parties to the Cartagena Convention, covering a wide geographical spread across the entire Caribbean region, including mainland and island nations, and representing a broad range of governance arrangements and economic status. The survey findings are thus considered representative of the diversity of nations across the Convention area and to reflect fairly, the variable experiences of members to the impacts and management challenges of sargassum inundations.
13. The survey responses confirm what is broadly known about the impacts of sargassum inundations, but also bring new information from across the entire region that serves to highlight the complexity of the challenge posed by massive sargassum stranding and especially how they impact on countries' abilities to implement the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, and its associated SPAW and LBS protocols.
14. The environmental, economic and social impacts of the sargassum phenomenon are clearly significant, affecting marine ecosystems, water quality, biodiversity and key sectors such as tourism, fishing and health. The impact of sargassum inundations varies across the Cartagena Convention area, with some locations experiencing significantly higher intensities than others depending on exposure to the sargassum transport pathways into and through the Caribbean Sea and subtropical North Atlantic. Furthermore, not all coastlines within a nation are affected equally, and thus there is considerable variation in the level of impacts on marine and coastal ecosystems and on key economic sectors, based on their location, coastal geomorphology and orientation relative to incoming sargassum.

15. There is also significant diversity in the capacity of members to manage the challenges posed by sargassum inundations with regard to implementing many aspects of the Convention. While some countries have established, or are in the process of developing, management plans to deal with sargassum at the national or local level, these plans are reported by most respondents as in need of improvement and strengthening at several levels, with current approaches typically remaining fragmented and ineffective.
16. Most countries are engaged in some form of sargassum management, whether or not they have a specific sargassum management plan in place. The most ubiquitous management actions currently include clearing (and disposing of) beached sargassum (at significant cost), dissemination of information, and monitoring and forecasting arrival of sargassum. We note that few are engaged in attempts to valorize sargassum and none reported having insurance or compensation schemes for losses attributed to sargassum inundations.
17. Responses to many of the targeted survey questions will inform efforts to update and prioritize recommended actions in the proposed Action Plan for consideration by SPAW STAC11 and SPAW COP13, and ultimately for presentation to the Convention Conference of Parties (COP18).

c. Relevance to Cartagena Convention

18. Overall, respondents most frequently listed areas where they considered that the sargassum inundation issue and the Cartagena Convention intersect. These, in order of importance, are:
 - Implementation of specially protected areas.
 - Scientific and technical collaboration.
 - Environmental impact assessment.
 - Pollution from land-based sources.

d. Management

19. The most pressing (top 4) management needs iterated by respondents are:
 - Improved understanding of the **ecological impacts of sargassum management actions** (such as clearing beaches, use of in-water barriers, sinking sargassum, storage/disposal of sargassum on land).
 - Improved understanding of the multiple **ecological impacts of sargassum inundations** (such as release of toxic gases; leaching of nutrients, heavy metalloids, pesticide residues and microplastics; uptake of toxins by crops when sargassum is used in agriculture).
 - Access to sufficient **funding** and assistance with budgeting for sargassum management (to allow for specific budget allocation to sargassum management and planning).
 - Improved **forecasting** of sargassum stranding events (such as coupling of existing open ocean forecasts with local geomorphology, currents and winds).

e. SPAW Protocol

20. The challenges of effectively implementing the SPAW protocol when faced with sargassum inundations was raised as one of the greatest concerns among members. The top 4 most pressing challenges listed by respondents include:
- Habitat destruction by sargassum inundations (especially of key habitats such as coral reefs, seagrass meadows and mangrove forests).
 - Protection or recovery of listed species and their habitats (especially - sea turtles, corals, birds and manatees on Annex I & II; and turtle grass, corals, lobster and conch on Annex III).
 - Reduced marine water quality caused by high volumes of decomposing sargassum trapped nearshore.
 - Restricted movement of listed species (especially of nesting endangered sea turtles).
21. Among the most frequently cited constraints for effective implementation of the SPAW protocol and in line with previously stated management needs (section F2) are:
- Lack of, or ineffective, sargassum management plans.
 - Lack of in-depth scientific knowledge.

f. LBS Protocol

22. Although of concern to fewer members than the SPAW protocol, implementation of the LBS Protocol is nonetheless somewhat compromised by sargassum inundations in some countries. The top 4 issues of greatest concern for this protocol are listed as:
- Assessing and monitoring environmental quality.
 - Development of management plans and demonstration projects aimed at reducing marine pollution.
 - Creating appropriate guidelines for environmental impact assessments.
 - Identifying the source of pollution.

Furthermore, the proposed listing of sargassum as an additional priority pollutant of concern in Annex 1 of the LBS protocol was only supported by 50% of respondents.

23. More information is available in the document: *UNEP(DEPI)CARWG.45INF 26 Contracting Parties needs related to managing Sargassum influx and how such influx may affect their implementation of obligations under the SPAW Protocol and Cartagena Convention, as well as the LBS Protocol-Survey analyze*

TASK 2 - Taking into account the findings of the survey and consultations, as well as any consultations with additional experts as appropriate, the Sargassum Working Group update and prioritize the proposed action plan of the Sargassum Working Group in UNEP(DEPI)/CAR WG.42/7 for consideration by SPAW STAC11 and COP13.

a. Methodology

24. On January 9, 2025, during the 6th sargassum meeting, the SPAW-RAC launched Task 2 based on the output of task 1. After presenting the request from the previous STAC and COP, SPAW-RAC reminded the context and the framework of the task, documents and the various components and lines of action.
25. Based on the survey outputs, the SPAW RAC invited experts to review the action plan to be prioritized and updated. At meeting 7, the SPAW-RAC presented a new working option for the action plan: an interim document listing the needs arising from the survey, transforming them into recommendations with a priority level and proposing concrete examples of action. Some experts preferred to work on the initial document as recommended by the STAC and updating it with added columns. During the online Meetings 8 - 9 and 10, SPAW-RAC led the discussions with the experts present to update the document component by component.
26. This updated version was then translated into Spanish and sent to the experts participating in the joint LBS and SPAW Workshop held in Trinidad at the Institute of Marine Affairs, organized by the UNEP-CEP secretariat. During the workshop, after a presentation of the document by SPAW-RAC, two sub-working groups were organized in English and Spanish to collectively review the document and take into account the expertise of the participants. The document was then collectively harmonized by the secretariat, RAC-SPA and RAC-LBS. A version for final proofreading was then sent to the experts and SPAW-RAC carried out a final harmonization in the three languages and then validated the documents.

b. Outcomes and highlights

27. The main outcome of this task is the updated Action plan organized around five components: governance, research, management, communication and awareness and sustainable financing. The action plan goal is to improve regional cooperation and capacity to effectively manage sargassum proliferation and coastal accumulation in the Cartagena convention marine and coastal ecosystems.
28. This action plan is intended to serve as a framework that may guide activities related to Sargassum at the national and regional level in response to SPAW STAC10 recommendations VI(3) and VI(4) and COP17/IGM20 decision 9. The Sargassum working group recommends this action plan to be presented at the next SPAW STAC and COP and Cartagena IGM.
29. The action plan is primarily guided by the Survey Results (UNEP(DEPI)/CARWG.45/INF 26 Contracting Parties needs to managing sargassum inundation survey Report) with inputs from the SPAW STAC Ad Hoc Sargassum Working Group, in consultation with the LBS Open-Ended

Working Group (OEWG). (List of Experts involved in the Action plan elaboration UNEP(DEPI)/CARWG.45/INF 25 Sargassum working group report).

30. More information is available in the document: *UNEP(DEPI)CARWG.45INF 27 STAC Sargassum working group updated action plan proposal and sustainable financing resources*

ADDITIONAL POINT OF CONSIDERATION: DEFINITION OF “SARGASSUM INUNDATION”.

31. The SPAW STAC Ad Hoc Sargassum Working Group convened a joint meeting with the LBS OEWG in Trinidad and Tobago from March 18 to 20, 2025, primarily to discuss the draft action plan. During this meeting, the experts present considered that a common definition of “Sargassum inundation” may help promote regional cooperation on the issue.

32. The experts present at the joint meeting converged and agreed on the following definition:

“Sargassum inundation is the massive accumulation of floating brown seaweed along coastlines, beaches, and shallow waters, driven by ocean currents, wind, rising sea temperatures, and nutrient excess. While sargassum provides valuable marine habitat in the open ocean, excessive buildup in coastal areas disrupts ecosystem health livelihoods, turning waters anoxic, harming marine life, and releasing toxic gases, trace metals and metalloids as it decays. These events also contribute to plastic and microplastic accumulation, intensifying their negative impacts. In recent years, sargassum inundations have become more frequent and severe, posing environmental, economic, and social challenges across the Wider Caribbean and other affected areas.”

APPENDIX I: LIST OF SPAW SARGASSUM WORKING GROUP EXPERTS

Name of Experts	Affiliation
Hazel Oxenford	Barbados
Janneth Rojas Ortega	Colombia
Jenny Asch Corrales	Costa Rica
Iván Figueroa Reyes	Cuba
Indra Contrera Caballero	Cuba
Enrique Pugibet	Dominican Republic
Chaymi Vladimir Rodriguez	Dominican Republic
Christelle Leborgne	France
Willy Ceï	France
Manfred van Veghel	Netherlands
Sabine Engel	Netherlands
Dilcia del Carmen Solano Mejía	Nicaragua
Allan Gutiérrez	Nicaragua
Marino Eugenio Abrego	Panama
Digna Barsallo	Panama
Charlie Prospere	Saint Lucia
Rahanna Juman	Trinidad and Tobago
Samantha Ebersole (on leave 01/10/24 - 28/02/25) Daniela Wojtalewicz (replaced Samantha 01/10/24 - 28/02/25)	USA
Felix Martinez	USA
Betzabey Motta	Venezuela
Observers	
Jessica Jonker	DCNA
Didiher Chacon	IAC
Invited	
Darryl Banjoo	RAC IMA - LBS Protocol
Audrey Hasson	GEO Blue Planet
Deanesh Ramsewak	UWI-LBS-LBS Protocol
Marko Tomic	Universidad EAFIT-LBS Protocol
Yamiris Gomez	RAC CIMAB-LBS Protocol
Lisa Kirkland	Jamaica-LBS
Laverne Walker	UNEP CEP