



Distr. LIMITED

UNEP(DEPI)/CAR WG.44/INF.4/Rev.1
02 October 2023

Original: ENGLISH

Sixth Meeting of the Scientific and Technical
Advisory Committee (STAC) to the Protocol
Concerning Pollution from Land-Based Sources
and Activities in the Wider Caribbean.

Virtual

01 to 03 February 2022

**STATUS OF ACTIVITIES OF THE ASSESSMENT AND MANAGEMENT OF
ENVIRONMENTAL POLLUTION (AMEP) SUB-PROGRAMME FOR 2021-2022**

This meeting is being convened virtually. Delegates are kindly requested to access all meeting documents electronically for download as necessary.

Table of Contents

Programme Overview.....	3
Table 1: Representation of AMEP staff on National, Regional and Global Committees.....	4
Table 2. Summary of Reports, Newsletters and Communication Activities Coordinated by or contributed to by AMEP.....	6
Status of the Protocol Concerning Pollution from Land-Based Sources and Activities (LBS).....	9
Summary of Activities.....	10
A. Programme Coordination and Management.....	10
B. Land and Marine-Based Sources of Pollution.....	15
C. Monitoring and Integrated Ecosystem Assessment.....	19
D. Ecosystems-Based Management Approaches.....	21
E. Knowledge Management and Communications.....	23
ANNEX I: Summary of Recommendations of the Fifth Meeting of the Scientific and Technical Advisory Committee to the Protocol Concerning Pollution from Land-Based Sources and Activities (5th LBS STAC). 26	
Annex II: Decisions of the Fifth Meeting of the Contracting Parties (COP) to the Protocol Concerning Pollution from Land-based Sources and Activities in the WCR (UNEP(DEPI)/CAR IG.43/3)	29
Annex III: Relevant Decisions of the Nineteenth Intergovernmental Meeting on the Action Plan for the Caribbean Environment Programme (19th IGM) and Sixteenth Meeting of Contracting Parties to the Cartagena Convention (16th COP). The full list is available in Information Document (UNEP(DEPI)/CAR IG.45/6)	31
Annex IV: Intergovernmental, technical/expert and other meetings convened by the AMEP Sub-Programme, LBS RACs and GEF Projects (2021-2022).....	33
Annex V: Internal publications by AMEP and GEF IWeco Project (2021-2022).....	34
ANNEX VI: Formal papers and presentations by the AMEP Sub-Programme	35
ANNEX VII: Status of Cartagena Convention Meeting Recommendations and Decisions Matrix	36

Programme Overview

1. This report presents the status of activities for the period 2021-2022 for the Assessment and Management of Environmental Pollution (AMEP) Sub-Programme which supports the Protocol Concerning Pollution from Land-Based Sources and Activities (LBS) and the Protocol Concerning Cooperation in Combating Oil Spills. It provides a summary of relevant recommendations and decisions of the Fifth Meeting of the Scientific and Technical Advisory Committee to the LBS Protocol (5th LBS STAC), Fifth Meeting of the Contracting Parties (5th COP) to the LBS Protocol, Nineteenth Intergovernmental Meeting (19th IGM) and Sixteenth Meeting of Contracting Parties to the Cartagena Convention (16th COP) (See Annexes I-III).
2. Progress on the Cartagena Convention's 5th LBS STAC and 5th LBS COP Meeting Recommendations and Decisions Matrix can be seen in Annex VII.
3. The goal of the AMEP Sub-Programme is to prevent, reduce, and control pollution of the coastal and marine environment from land and marine-based sources thereby enabling countries of the Wider Caribbean Region (WCR) to meet their obligations under the LBS and Oil Spills Protocols.
4. The specific objectives of the Sub-Programme are to:
 - a) Coordinate and oversee the implementation of AMEP projects and activities within the framework of the Cartagena Convention;
 - b) Ensure that the formulation and implementation of projects and activities satisfy the obligations of the LBS and Oil Spills Protocols;
 - c) Promote ratification of, accession to, and effective implementation of the LBS and Oil Spills Protocols; and
 - d) Enhance coordination, collaboration and communication with Regional Activity Centres (RACs), members of the Regional Activity Network (RAN), and relevant regional and international organizations in the development and implementation of the AMEP work plan.
5. Two [virtual workshops](#) were convened in November 2021, one in English and another in Spanish, with Non-Contracting Parties to the LBS Protocol to promote ratification, identify barriers to ratification, and develop a list of capacity-building needs.
6. The Governments of Guatemala, Mexico, Suriname and Saint Kitts and Nevis were provided with technical support and advice to assist them with becoming Parties to the LBS Protocol. As a result of this support, Saint Kitts and Nevis prepared and submitted a request to its Cabinet of Ministers for ratification of the LBS Protocol. The request was approved and efforts are underway to formally deposit the instrument of ratification. In November 2022, St. Vincent and the Grenadines received cabinet approval for ratification of the LBS Protocol and Suriname submitted an internal request for of ratification of the Cartagena Convention and its three Protocols (UNEP(DEPI)/CAR WG.44/INF.3).
7. The importance of ratifying the LBS Protocol was promoted during the biennium through new outreach products including publications and fact sheets. A list of these products is provided in Annex V.
8. The AMEP Programme Officer (PO) coordinated the implementation of programme activities for 2021-2022 with support from the Junior Professional Officer (JPO) financed by the Government of Germany, the Communications, Education, Training and Awareness (CETA) Team Assistant and a temporary Programme Assistant who joined from March to December 2021 in the absence of a full-time staff member. The Directors and staff of the LBS Regional Activity Centres provided additional technical support. The JPO and AMEP Programme Management Assistant (full-time staff member) joined the Secretariat in October 2021 and March 2022, respectively.

9. The AMEP PO continued to be responsible for the Communications Sub-Programme in the absence of a CETA Programme Officer. The JPO was recruited to support both the LBS and CETA Sub-Programmes. Three interns provided additional support to the AMEP Sub-Programme over the 2021- 2022 period.
10. Two National United Nations Volunteers (UNVs) were recruited to support the work plan of the AMEP Sub-Programme, one to assist with marine litter activities and a Project Assistant to support the implementation of the ACP MEAs III Project.
11. The AMEP PO served as Officer-in-Charge from November 2021 and March 2022 and provided oversight for the Specially Protected Areas and Wildlife (SPA) Sub-Programme in the absence of a SPAW Programme Officer who left the Secretariat in March 2022. He acted in the capacity of Coordinator from June to August 2022 and was responsible for monitoring the Decisions of the Convention and LBS Protocol and providing periodic updates to the Bureau and to UNEP headquarters. The AMEP PO was appointed as Coordinator of the Cartagena Convention Secretariat on 1st September 2022. The recruitment process for the position of AMEP Programme Officer is underway.
12. Discussions are ongoing between the Secretariat and the Government of Cuba regarding the finalization of the host agreement to formalize the Centre of Research and Environmental Management of Transport (CIMAB) as a Regional Activity Centre (RAC) for the LBS Protocol.
13. Table 1 below reflects the contribution of the AMEP Sub-Programme to technical discussions on pollution through national, regional, and global committees. These meetings were held virtually during January 2021 to December 2022.

Table 1: Representation of AMEP staff on National, Regional and Global Committees

No .	Committee	Scope	Relevance to Cartagena Convention/LBS Protocol	Nature of Meeting	Frequency
1	BASEL Convention Plastics Working Group	Global	Responds to LBS COP Decision for increased collaboration with the BASEL Secretariat	Virtual	As needed
2	Technical Advisory Committee (TAC) – Caribbean Public Health Agency (CARPHA)	Regional	Supports coordination on environmental health projects in the Caribbean and on the GEF IWeco project; support provided to CARPHA's Environment Advisory Committee	Virtual	Semi-annually
3	Global Water Partnership Caribbean Technical Committee	Regional	Supports coordination on water-related projects in the Caribbean	Virtual and Face-to-Face	Quarterly
4	Interagency Coordinating Group for GEF IWeco Project	Regional	Represent Secretariat as lead regional Executing Agency for GEF IWeco	Face-to-Face and Virtual	Quarterly

5	Project Steering Committee Meetings of the GEF IWeco Project	Regional	Represent Secretariat as lead regional executing agency for the GEF IWeco Project	Face-to-Face and Virtual	Annually
6	Project Steering Committee Meeting of GEF CReW+ Project	Regional	Represent Secretariat as co-executing agency for the GEF CReW+ Project	Face-to-Face and Virtual	Annually
7	Project Steering Committee Meeting of ACP MEAs III Project	Regional	Represent the Secretariat as a co-implementing agency for the ACP MEAs III Project	Face-to-Face and Virtual	Annually
8	Caribbean Node for Marine Litter Management	Regional	Co-host with the Gulf and Caribbean Fisheries Institute	Virtual and Face-to-Face	As needed
9	Caribbean Platform for Nutrients Management	Regional	Host for platform which supports LBS Protocol Annex VI	Virtual and Face-to-Face	As needed
10	Caribbean Platform for Wastewater Management	Regional	Technical support to platform hosted by the Caribbean Water and Wastewater Association (CWWA) which supports LBS Protocol Annex VI	Virtual and Face-to-Face	As needed
11	Secretariat Monitoring and Assessment Working Group	Regional	Supports the implementation of the AMEP work plan	Virtual	As needed
12	Committee for Regional Strategic Action Plan on Water Resources Management (RSAP)	Regional	Support coordination on projects and activities relating to integrated watershed, water resources and wastewater management relevant to the LBS Protocol	Virtual	As needed
13	Project Steering Committee for GEF IWeco The Bahamas Project	National	Provide technical support and ensure linkages with the Regional IWeco Project	Virtual	Monthly

14. During the reporting period, the AMEP Sub-Programme was represented at several regional and global meetings and conferences including regional Ministerial meetings focusing on maritime transportation, environment, solid waste and water.
15. AMEP representatives contributed with oral presentations, and promotional materials relating to the LBS Protocol. See Annex VI for presentations made and meetings attended. Representation at several virtual meetings, webinars and conferences in 2021-2022 allowed for greater visibility of the work of the Secretariat.

16. Several actions were taken to improve communication with stakeholders and facilitate knowledge sharing. These are summarized in Table 2 below.

Table 2. Summary of Reports, Newsletters and Communication Activities Coordinated by or contributed to by AMEP

No	Report	Frequency
1	Input to UNEP Annual Reports	Annually
2	Input to UNEP Reports on relevant UNEA Resolutions	As Required
3	Input to Report on Implementation of Regional Seas Strategic Directions	Annually
4	Report on implementation of UNEP Global Programme of Action (GPA)	Annually
5	Input to Secretary-General's Report on the Ocean and Law of the Sea	Annually
6	Input to Report on measures taken in support of Resolution 67/205 adopted on 21 December 2012 "Towards the sustainable development of the Caribbean Sea for present and future generations".	Annually
7	Input to project financial and progress reports to donors, Project Coordinating Units, implementing agencies and UNEP headquarters	As Required (Quarterly, Semi-annually and Annually)
8	Content provided for website and social media	Daily
9	Database updates – Focal Points	As Required
10	Input to Report to the United Nations Country Team on United Nations Development Assistance Framework	Annually
11	Report to Planning Institute of Jamaica on Projects and Activities in Jamaica	Annually
12	Report for Economic Commission on Latin American Countries on SAMOA Pathway Implementation	As Required
13	Report on Country Implementation Plans (CIPs of the United Nations Multi-Country Sustainable Development Framework (UNMSDF) for Jamaica and Trinidad and Tobago	Annually
14	Support to GEF IWeco Quarterly Newsletter, e-Bulletin and IWeco twice-monthly webinars	As required
15	Input to the UNEP Cartagena Convention Secretariat Newsletter	Quarterly
16	Support to the GEF CReW+ Quarterly Newsletter and Communications meetings	Quarterly

17. The Secretariat through the AMEP Sub-Programme reviewed and provided technical input to several regional and global reports involving, inter alia, UN Resolutions relating to oceans, Small Island Developing States (SIDS) and the Sustainable Development Goals. Input was also provided to various technical UN reports on pollution-related issues such as marine litter, plastics, wastewater and nutrients. Of reference to the LBS Protocol is the report on [Nature-Based Solutions for Wastewater Management: Barriers and Opportunities in the Caribbean](#) written in collaboration with the Nature Conservancy through

funding from the Swedish Ministry of Environment.

18. The AMEP Sub-Programme provided support to regional and international meetings and Annex IV provides a list of the major workshops that were organized with the support of the Secretariat.
19. Linkages were strengthened with regional agencies and coordination meetings were held with several partners on areas of mutual interest relating to pollution prevention and control. Many of these are reflected below:

UNEP Global Programme of Action (GPA) UNEP Regional Office for Latin America and the Caribbean (ROLAC) and Caribbean Sub-Regional Office (CSRO)	Caribbean Public Health Agency (CARPHA) International Maritime Organization (IMO) National Oceanographic & Atmospheric Administration (NOAA)
Intergovernmental Oceanographic Commission Sub-commission for the Caribbean and adjacent regions (IOCARIBE) Global Environment Facility (GEF)	Water Centre for the Humid Tropics of Latin America and the Caribbean [el Centro del Agua del Trópico Húmedo para América Latina y el Caribe (CATHALAC)]
Organization of Eastern Caribbean (OECS) Caribbean Water and Sewage Association (CAWASA) The Nature Conservancy Science for Nature and People Partnership (SNAPP) Global Water Partnership – Caribbean and Central America	Marine and Coastal Research Institute [el Instituto de Investigaciones Marinas y Costeras (INVEMAR)] US Environmental Protection Agency (EPA)
UN Economic Commission for Latin America (UN ECLAC) Pan American Health Organization (PAHO) Caribbean Water and Wastewater Association (CWWA) Inter-American Development Bank (IDB)	Association of Caribbean States (ACS) United Nations University, Institute for Water, Environment and Health (UNU-INWEH) The University of Geneva Florida State University (FSU) Basel Convention Caribbean Regional Centre OSPAR Commission Gulf and Caribbean Fisheries Institute (GCFI)

20. The Open-Ended Working Group (OEWG) on Environmental Monitoring and Assessment and related thematic sub-groups continues to provide technical support to the Secretariat and the Regional Activity Centres as they implement activities that support the implementation of the Cartagena Convention's Regional Strategy and Action Plan for the Valuation, Protection and/or Restoration of Key Marine Habitats in the Wider Caribbean 2021 – 2030.
21. The GEF-funded project 'Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States' (IWEco) convened its [Sixth Project Steering Committee \(PSC\) Meeting](#) in Port of Spain, Trinidad & Tobago July 18-20, 2022 and its [Fifth PSC Meeting](#) was held virtually in September 2021. A draft report of the 6th PSC Meeting is included as an Information Document for the meeting: **UNEP(DEPI)/CAR WG.44/INF.11**. The Project Implementation Report (PIR) on the project's progress and the challenges faced during its implementation is presented as Information Document **UNEP(DEPI)/CAR WG.44/INF.14**.
22. Key Decisions from the 6th GEF IWEco PSC Meeting include:

- **Support** the further development and implementation of the Regional Environmental Monitoring Data Portal (REMDAP) in collaboration with other regional efforts to improve environmental data and information management.
- **Encourage** the Cartagena Convention Secretariat, regional partners and participating countries to maximize on existing capacity in the region and the availability of already existing resources when developing and/or implementing new training programmes.
- **Recommend** that Cartagena Convention Secretariat and regional partners explore mechanisms for the formalization of the Regional Environmental Laboratory Network in order to optimize greater collaboration on environmental monitoring and assessment. (UNEP(DEPI)/CAR WG.44/INF.11a)

23. The GEF-funded project ‘An integrated approach to water and wastewater management using innovative solutions and promoting financing mechanisms in the Wider Caribbean Region’ (CReW+) convened its Second PSC Meeting in April 2022. The final PSC meeting report and PIR are presented as Information Documents **UNEP(DEPI)/CARWG.44/INF.10** and **UNEP(DEPI)/CAR WG.44/INF.13**, respectively.

24. Key Decisions from the 2nd GEF CReW+ PSC Meeting (UNEP (DEPI)/CAR/ WG.44/INF.10a) include:

- **Encourage** GEF CReW+ participating countries that are also members of the African, Caribbean and Pacific grouping (ACP) to request support from the Cartagena Convention Secretariat from projects such as ACP MEAs III and activities that contribute to GEF CReW+.
- **Recognize** the importance of the ratification of the Land-Based Sources of Marine Pollution Protocol and the financial and technical support available through the GEF CReW+ Project for ratification. It encourages all countries who have not yet ratified the Protocol to actively promote ratification in their respective countries.

25. The AMEP Sub-Programme continued to work closely with the SPAW Sub-Programme and the CETA Sub-Programme in the implementation of the European Union-funded ‘Capacity-Building Related to Multilateral Environmental Agreements in African, Caribbean, and Pacific Countries’ Phase 3 Project (ACP MEA). The ACP MEAs III half-yearly progress reports are presented as Information Document **UNEP(DEPI)/CAR WG.44/INF.15**. The ACP MEAs III Project convened its Third PSC Meeting in October 2022, the report of the meeting is presented as Information Document **UNEP(DEPI)/CAR WG.44/INF.12**.

26. Key comments from the 3rd ACP MEAs III meeting (UNEP(DEPI)/CAR WG.44/INF.12a) include:

- The European Union (EU) encouraged partners in general to note a few elements that could be useful in increasing effectiveness of implementation and informed that the PSC can be flexible in postponing or modifying some activities in order to achieve positive results.
- The Organisation of African, Caribbean and Pacific States (OACPS) acknowledged the repeated concern from partners on inter-partner collaboration and encouraged partners particularly the regional seas programme to extensively discuss potential areas of synergies and cooperation among themselves.
There was acknowledgement from the chairs of the mutual challenges being faced by the regions in sourcing experts for various consultancies and on the need to improve synergies between the various offices. Suggestions were also made to consider how the issue of sargassum may be addressed as a region.

27. Collaboration between the AMEP Sub-Programme and the UNEP Regional and Caribbean Sub- Regional Offices continued to focus on areas of solid waste including plastics and microplastics and chemicals management. Discussions are ongoing to identify countries that require support for the development of National Marine Litter/Plastics Reduction Strategies and Action Plans.

28. During the 2021-2022 biennium, the Secretariat continued to deliver its work under the AMEP Sub-Programme in the following thematic areas: (a) Monitoring and Assessment; (b) Waste Management; (c) Watershed Management; and (d) National Programmes of Action for Pollution Prevention.

Programme Coordination Cost and Expenditure (in USD)

Source of Funds	Budget (US\$)	Expenditure (US\$)
Caribbean Trust Fund	545,000	495,000
UNHSTF Project*	239,801	184,882
GEF IWeco	2,002,260.64	1,317,455
GEF CReW+	5,043,000	1,516,478
ACP MEAs III	788,463	667,170
GPNM**	45,000	45,000
SIDA 2021 Grant ***	105,000	105,000
GRAND TOTAL	8,223,525	7,867,151

*UNHSTF 2021 recorded budget and expenditure

** To conduct an Economic Valuation Pilot Project that will involve a study on the assessment of the economic benefits of sustainable nitrogen management in freshwater, marine and coastal ecosystems

*** To support the implementation of activities under key thematic areas of work of the Cartagena Convention.

Status of the Protocol Concerning Pollution from Land-Based Sources and Activities (LBS)

29. Since the last reporting period, the number of Parties to the LBS Protocol continues to be 15.

Contracting Party	Entry into Force
Antigua and Barbuda	13 July 2010
The Bahamas	24 June 2010
Barbados	29 June 2019
Belize	04 February 2008
Republic of Costa Rica	26 May 2016
Dominican Republic	6 September 2012
France	4 May 2007
Grenada	5 March 2012
Guyana	14 July 2010
Honduras	13 October 2018
Jamaica	5 November 2015
Panama	9 July 2003
Saint Lucia	30 January 2008
Trinidad and Tobago	28 March 2003
United States of America	13 February 2009

Summary of Activities

30. The following is a summary of activities implemented by the Secretariat under the AMEP Sub-Programme for the period 2021-2022.

A. Programme Coordination and Management

31. In accordance with Decision 9 of the 5th LBS COP, four thematic sub-groups of the OEWG were established to support the implementation of national obligations for the LBS Protocol on marine pollution.
32. The Secretariat, in collaboration with regional partners, was successful in mobilizing financial support for activities on water and wastewater management, nutrient management, marine pollution, plastics and microplastics as presented in the 2021-2022 work plan. A summary of the unfunded activities for which financial support was mobilized and which were implemented during the biennium are:
1. Virtual capacity building workshops focused on marine spatial planning, shoreline clean-up assessment techniques, satellite monitoring of oil spills, the use of Geographical Information Systems (GIS) to address oil pollution, preparedness, and response to oil spills, as well as trade and maritime transport in the Caribbean.
 2. Technical support (via a consultancy) was provided by the Secretariat to update the Oil Spill Contingency Planning for Barbados through funding from the ACP MEAs III project.
33. Several public awareness activities were undertaken through the Caribbean Node of the Global Partnership on Marine Litter (GPML-Caribe), co-hosted by the Cartagena Convention Secretariat and the Gulf and Caribbean Fisheries Institute that saw opportunities for further implementation of the Regional Action Plan for Marine Litter and the Regional Marine Litter Management Strategy through projects.
34. The Secretariat raised the profile on plastic management through a joint Regional Seas participation at the 7th International Marine Debris Conference (7IMDC), supporting the development of National Marine Litter Strategies, and mobilizing resources for supporting 8 countries in the Wider Caribbean Region including SIDS for addressing plastics management and the circular economy and multiple outreach efforts.
35. The project 'Prevention of Marine Litter in the Caribbean (PROMAR)', financed by the Government of Germany and implemented in partnership with Adelphi, was delayed due to setbacks in the project approval process and with receipt of funding. During the biennium, was to finalize work packages for the British Virgin Islands, Guyana, Suriname, Saint Kitts and Nevis, and Trinidad and Tobago, the countries that the Secretariat will be working with. The focus of the project will be to reduce the flows of plastic waste (mainly packaging) from terrestrial sources into the Caribbean Sea and its coastal areas. The other project beneficiary countries are Dominican Republic, Colombia and Costa Rica.
36. The Secretariat provided technical support in the development and/or update of the European Union Solid Waste Management Proposal, Caribbean Waste Management Action Plan: Priorities and Plans Report (CWMAP) and the Regional Action Plan on Water and Climate Change (RSAP). In addition, the Secretariat supported the [Marine Litter Action Plan for the Northeast Pacific 2022-2026](#) which was formally launched on June 8, 2022
37. A Memorandum of Understanding was signed with the Secretariat of the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) in November 2021. This will further inter-regional cooperation on marine protected areas (MPAs), marine litter and ecosystem-based management.
38. Technical support was provided by OSPAR including in-person participation at a Regional Capacity Building Workshop on Coastal Eutrophication held on 25-27 July 2022 in Trinidad and Tobago. The workshop was organized by the IMA with support from CIMAB with representatives from RAC CIMAB, INVEMAR and SPAW RAC in attendance. The workshop raised awareness of the science, trends, and the need to prioritize work for reducing nutrient pollution and provide updates on the development of an Indicator for Coastal

Eutrophication Potential (ICEP), including the capacities and new policies that may be needed to facilitate future reporting on this indicator. The report of this training can be found in Reference Document **UNEP CEP 2022, Report on the Regional Workshop on the index of Coastal Eutrophication and Harmful Algal Blooms**.

39. Further to MOUs signed during the previous biennium with agencies that now form part of the Regional Activity Network (RAN) for the LBS Protocol, cooperation was enhanced through Small Scale Funding Agreements (SSFAs) and participation at conferences.
 - The Gulf and Caribbean Fisheries Institute (GCFI) supported the implementation of community-based grants on marine litter and awareness raising on plastic pollution (UNEP(DEPI)/CAR WG.44/INF.7).
 - The Caribbean Natural Resources Institute (CANARI) supported the development of new knowledge management materials and implementation of activities under the GEF IWeco project in Grenada. The Secretariat has signed three SSFAs and one Project Cooperation Agreement (PCA) with CANARI (UNEP(DEPI)/CAR WG.44/INF.14). This further supports the integration between the Specially Protected Areas and Wildlife Sub-Programme and the AMEP Sub-Programme.
 - The Institute of Marine and Coastal Research (INVEMAR) supported the webinar on microplastics research and potential expansion of a regional laboratory network-REMARCO (UNEP(DEPI)/CAR WG.44/INF.19).
 - During the UN Oceans Conference in Lisbon, Portugal, The Ocean Foundation co-organized a side event on 30 June 2022, titled *A perspective to reduce climate change impacts through restoration and NbS in marine-coastal ecosystems, a review of study cases*. The event focused on the main challenges to implementing blue carbon ecosystems restoration as a nature-based solution proven to recover ecosystem services and associated livelihoods.
 - The Secretariat also participated in the launch of OSPAR's 2nd Regional Action Plan to tackle marine litter during the UN Ocean's Conference.
40. New partnerships were developed with the Ocean Sewage Alliance (OSA), The Nature Conservancy (TNC) and RARE to develop joint capacity building activities on behaviour change relating to the control, reduction and prevention of marine pollution from domestic wastewater.
41. Joint capacity-building activities on behaviour change relating to the control, reduction and prevention of marine pollution from domestic wastewater will be developed by the Ocean Sewage Alliance, The Nature Conservancy and RARE.
42. The Secretariat has been engaged in the development of new project proposals and concepts for the GEF 8, Plastics Programme, and Blue Livelihoods with Alinia. The endorsement provided on the project concept developed through SNAPP.
43. The Secretariat facilitated the preparations for the convening of LBS STAC 5 and LBS COP 5 in 2021 including consultations with Parties, Working Groups and regional partners to inform the preparation of working and information documents for those meetings.
44. The Secretariat successfully concluded activities under the [UN Jamaica Human Security project](#) 'Strengthening Human Resilience in Northern Clarendon and West Kingston, Jamaica'. Key outputs included the development of a training tool on rainwater harvesting, a model for participatory management and community-based waste, water and wastewater systems which can be replicated and/or upscaled in the Wider Caribbean Region. Another UN Human Security Trust Fund Project has been developed for Barbados and the OECS modelled on the experience in Jamaica.
45. Further to discussions initiated with UNEP headquarters during the last biennium, funds have been allocated for the Secretariat to support the implementation of two GEF International Waters (IW) Projects:

- GEF Gulf of Mexico Large Marine Ecosystem (GoM LME) Project.
- GEF IW:LEARN 5: Supporting Portfolio Coordination Within and Beyond the International Waters Focal Area, particularly in Small Island Developing States, through Knowledge Sharing, Information Management, Partnership Building and Programmatic Guidance Services.

46. The Secretariat, in collaboration with regional partners, was successful in mobilizing financial support for unfunded pollution prevention activities reflected in the 2021-2022 Work Plan and for new projects that are presented in the 2023-2024 Draft Work Plan. A summary of the unfunded activities for which financial support was mobilized and which began implementation during the 2021/2022 biennium, are:

- Development, submission, and approval of a full-sized project proposal on ‘Reducing Plastic Pollution in the Caribbean Sea, through the Sustainable Management of Plastics in the Wider Caribbean Region’.
- Development, submission, and approval of a full-sized proposal for a Regional Plastics Reduction Project for Caribbean SIDS funded by the Government of Germany.
- Through financing from the Global Partnership on Nutrient Management (GPNM), Jamaica and Barbados, both Contracting Parties to the LBS Protocol, are benefitting from an Economic Valuation Pilot Project. Two case studies were developed that propose options for improving nutrient use efficiency, as well as to quantify the multiple costs and benefits of meeting the nutrient management targets for food security, marine and freshwater ecosystems, terrestrial ecosystems, the mitigation of greenhouse gases and other climate threats, and the improvement of human health (UNEP(DEPI)/CAR WG.44/INF.8).
- Small-Scale Funding Agreements with the LBS RACs partially funded by the Swedish International Development Cooperation Agency (SIDA) grant (UNEP Headquarters), supported the implementation of activities to i) develop guidelines for classification of waters according to the LBS Protocol (UNEP(DEPI)/CAR WG.44/INF.16), ii) establish regional criteria and standards for N and P loads in domestic and industrial wastewater discharges (UNEP(DEPI)/CAR WG.44/INF.17) and iii) convene a Regional Workshop on the Index of Coastal Eutrophication and Harmful Algal Blooms held in July 2022.
- Funding from the SIDA grant supported the development of a regional environmental monitoring platform (see details below #77)
- Regional Eutrophication Workshop held on 13-14 December 2022 to facilitate training and professional exchanges of experiences and lessons learnt in the development of National Nutrient Reduction Strategies and Action Plans in Barbados and Jamaica.

47. Through participation at UNEP’s Regional Seas Programme 22nd Annual Meeting in May 2022, the Secretariat was able to strengthen cooperation with other Regional Seas Programmes that enabled:

- Virtual participation in a seminar organized by the South Pacific Regional Environmental Programme (SPREP) to share best practices on marine litter and plastics management.
- Development of regional databases and information platforms including data sharing policies with the Barcelona Convention and their Regional Activity Centre Plan Bleu.
- Collaborate with the UNEP Finance Initiative on how best to advance discussions relating to blue and green economies and sustainable consumption and production in the region.
- Discussions with the UNEP Science Division for the further development of GEMS Oceans and

GEMS Freshwater, which will enable more targeted support to the Wider Caribbean Region.

48. The OEWG convened 3 meetings during the biennium, where the Terms of Reference were revised, adopted and circulated in English, Spanish and French. National and regional experts were nominated to participate in the OEWG and its recently established thematic sub-groups. Dr. Darryl Banjoo as the LBS Focal Point for Trinidad and Tobago and Dr. Linroy Christian (Antigua and Barbuda) were elected as Chair and Vice Chair of the Working Group, respectively (UNEP(DEPI)/CAR WG.44/INF.6).

49. In July 2022, the Secretariat launched the first edition of its combined quarterly newsletter, featuring updates on activities across all Sub-Programme, Regional Activity Centres and country news.

Main Activities	Indicators of Achievement	Status
Promote ratification of the LBS Protocol by Non-Contracting Parties.	a. Increased number of ratifications of the LBS Protocol; b. Targeted promotional material on the benefits of ratification for multiple audiences e.g. general public, private sector, governments and key economic sectors.	Fully Completed Workshop for Non-Contracting Parties held. Needs identified. Funding identified under CReW+ and ACP MEA. Activities included in SSFAs with RAC CIMAB and RAC IMA. Technical guidance and support provided to countries interested in ratification including Suriname, Saint Kitts Nevis and St. Vincent and the Grenadines.
Organize 5 th LBS STAC and 5 th LBS COPs	a. Meetings successfully convened with appropriate decisions and recommendations made to support countries in the region to control, prevent and reduce land-based sources of marine pollution.	Fully Completed Virtual meetings were held on 15 - 17 March 2021 and 26 July 2021 respectively.
Provide Secretariat support to Ad Hoc Meetings of Working Groups	a. Meetings convened. b. Resources circulated and input received from group members.	Partially Completed New experts have been nominated to the OEWG and thematic sub-groups. The Working Group continues to support the work of the Secretariat and the LBS RACs. A Chair and Vice Chair have been elected.
Collaborations and synergies with relevant organizations and initiatives within and outside the region	a. Participation at conferences/meetings with LBS RACs and RAN and key partners in the sector. b. Agreements developed with key partner agencies and/ Contracting Parties to the LBS Protocol.	Partially Completed SSFAs/ PCAs/MoUs signed and implementation undergoing/completed with LBS RACs, INVEMAR, GWP-C, GCFI, CAWASA, ERIC, UNU INWEH, GRID GENEVA, CANARI, CWWA, the Government of Saint Vincent and the Grenadines & Saint Lucia. New PCAs/SSFAs being developed for Cuba, Panama, Jamaica, Saint Kitts and Nevis, RARE & UNITAR. Participation at several events.
Provide technical assistance and guidance to Contracting Parties for the implementation of the Cartagena	a. Guidance on the national implementation of the Cartagena Convention and the LBS Protocol	Partially Completed Facilitated through funding from

Convention, Oil Spills and LBS Protocols.	provided through briefs, model cabinet papers and/or twinning;	ongoing projects/grants- GEF IWeco, GEF CReW+, ACP MEAs III, Sida Grant, GPNM and Norway in areas of nutrient management, IWWM, plastics, marine litter, MPAs. Will be further supported through new project GEF LAC Cities, ProCaribe, Promar
---	--	---

B. Land and Marine-Based Sources of Pollution

48. In 2021, the [GEF CReW+ Academy](#) organized two webinar blocks on “Reuse of treated effluent” (Block 2) and “Methods to develop the blue economy and the good use of wastewater” (Block 3). Between March and April 2022, Block 4 was launched for regional professionals and focused on topics such as pre-feasibility and selection of innovative wastewater nature-based technologies, irrigation systems with treated wastewater, and Shit Flow Diagrams (SFD) for the design and management of future sanitation infrastructures. The trainings were delivered by the Global Water Partnership- Caribbean (GWP-C).
49. The Regional Marine Pollution Emergency, Information and Training Centre- Caribe (REMPEITC Caribe), the RAC for the Oils Spills Protocol delivered regional and national workshops and training on oil spills and maritime affairs. Virtual capacity building workshops focused on marine debris, sargassum, marine spatial planning, shoreline clean-up assessment techniques, satellite monitoring of oil spills, the use of Geographical Information Systems (GIS) to address oil pollution, preparedness and response to oil spills, as well as trade and maritime transport in the Caribbean. Additional workshops on national contingency planning were conducted for Panama, Dominican Republic, Nicaragua, St. Martin, Anguilla, The Bahamas, Antigua and Barbuda, and Grenada.
50. The Secretariat is supporting the Dominican Republic in the development of a draft Regulation for the implementation of the International Convention for the Prevention of Pollution from Ships (MARPOL). Financing is provided under the ACP MEA III project.
51. RAC REMPEITC-Caribe provided additional technical support to Contracting Parties (on request) to assess, prepare, adopt, update as well as implement and test national contingency plans and regional or sub-regional agreements/contingency plans, dealing with preparedness for and response to oil and Hazardous and Noxious Substances (HNS) spills from ships, seaports, oil handling facilities and offshore installations.
52. During the Tenth Ordinary Steering Committee Meeting of RAC REMPEITC-Caribe convened in May 2022, focal points of the Cartagena Convention’s Oil Spills Protocol endorsed a 2022-2023 work plan that includes various thematic workshops to bolster oil spill preparedness and response. Recommendations regarding RAC REMPEITC-Caribes’s Strategic Plan on ballast water management, Oil Spill National Contingency Plans and the International Convention for the Prevention of Pollution from Ships (MARPOL) were adopted by the PSC.
53. The Secretariat, through the Oil Spills Protocol, continues to partner with the IMO to build capacity within the WCR to reduce the negative impacts of oil spills through the development and adoption of national oil spills contingency plans. Work has started with NOAA to build capacity for early detection of oil spills and sargassum using satellite technology while supporting the development of vulnerability assessments in the region.
54. RAC IMA, through the Collaboration for Oil Satellite Tracking in the Americas (COSTA) programme and in partnership with NOAA, is leading the Integrated Early Warning Systems on Oil Spill and Sargassum within the region.
55. The Secretariat will further its efforts to reduce marine plastic pollution in the region through the GEF-funded project ‘Reduce marine plastics and plastic pollution in Latin American and Caribbean cities through circular economy’ (GEF LAC Cities). This project aims to reduce regional marine plastics and plastic pollution by facilitating circular actions at the city-level to accelerate the transition to a circular economy through improved waste management. It directly responds to national, regional and global marine litter and plastics-related action plans, resolutions and commitments such as the Regional Action Plan for Marine Litter (RAPMaLi) for the Wider Caribbean Region. The GEF LAC Cities Pre-Inception Workshop was hosted by the Secretariat on 16 January 2023, full implementation is expected to begin during the first quarter of 2023.

56. The Secretariat in coordination with the Saint Lucia Solid Waste Management Authority (SLSWMA), through support from the ACP MEA III project and UNEP Science Division developed a Marine Litter/Plastic Reduction Strategy and Action Plan. A National Consultative Workshop to develop a National Source Inventory on Plastic Pollution and Marine Litter in Saint Lucia was held in April 2022. The purpose of the workshop was to identify relevant work completed and underway, map stakeholder activities and assess existing datasets in view of publishing a National Source Inventory report. A high-level meeting was held in July 2022 to present the findings of the National Source Inventory report and the draft Marine Litter Action Plan. The plan is being finalized for formal adoption.
57. In partnership with the Fundación MarViva, the Secretariat supported the development of the [Marine Litter Action Plan for the Northeast Pacific 2022 – 2026](#), which was launched virtually in June 2022. The Secretariat provided expert advice during the development of the Action Plan which was led by MarViva. The Action Plan serves countries in the Central American region, some of which are Contracting Parties to the Cartagena Convention, as well as to one or more of its three Protocols.
58. Through the GPML-Caribe, the Secretariat and the Global Ghost Gear Initiative (GGGI) collaborated on a project entitled Reduction of Fishing Gear Loss into the Marine Environment in the Caribbean. The project provided added incentive to Caribbean Small Island Developing States to minimize the occurrence and impact of fishing gear loss in extreme weather events. It focused on effectively integrating the GGGI Best Practice Framework into the Caribbean context, and subsequently testing those best practices in the region. A baseline of hotspot locations was determined and gear removal activities to ground-truth this hotspot analysis were conducted. Additionally, the availability of in-country port reception facilities was investigated along with the feasibility of recycling fishing gear locally or regionally. Thus far, activities have been completed in Jamaica, Grenada and Belize with efforts currently underway to expand to other Caribbean islands and Mexico. A [Caribbean Regional Action Plan to Prevent Abandoned, Lost or Otherwise Discarded Fishing Gear](#) was also developed.
59. GPML-Caribe supported the update and ongoing implementation of the Caribbean Waste Management Action Plan: Priorities and Plans Report (CWMAAP), which compliments the Caribbean Regional Marine Litter Strategy and Action Plan. The Secretariat helped to identify and address gaps, key issues and priority actions from the previous report. The document provides a reference for designing and implementing priority actions on waste management for the region, with a focus on strategies supported by private sector and civil society.
60. In partnership with the Secretariat, GCFI supported the development of criteria for a small grants programme. Calls for Proposals were developed and advertised by MPACONnect in support of capacity building at site-specific MPAs within the region and the GPML-Caribe in support of marine litter prevention and reduction within the WCR. MPACONnect offered grants of up to US\$8,000 whilst GPML-Caribe offered grants of up to US\$15,000. Hybrid grants of up to US\$20,000 were offered to support marine litter prevention and reduction work in MPAs within the WCR. The Call for proposals for marine was widely distributed with a total of 26 proposals being submitted with 15 proposals being shortlisted and 9 proposals being selected for funding.
61. Funded by the ACP MEAs III project, GCFI through the small grant programme supported organizations in the management of marine litter and capacity-building at site-specific marine protected areas (MPAs) in the Wider Caribbean Region. GCFI awarded USD108,595 to 3 marine litter and 3 hybrid community-based projects with a focus on plastic reduction, reuse, and recycling in September 2022. The work under this activity is still ongoing.
62. A report on the [Development of a Public Private Partnership to Reduce Marine Pollution from Pleasure Vessels \(yachts\) and Tourism Centres](#) was commissioned by the Caribbean Public Health Agency (CARPHA) under the GEF IWEco project. The results and recommendations from this report will help to inform the best approach for public-private sector partnerships to control, reduce and/or prevent pollution from pleasure vessels and tourism centres.

63. The Secretariat participated in Japan International Cooperation Agency's (JICA) second workshop for the "Technical Project on Advisor for Marine Plastic Litter Management in the Caribbean Region" from 31 August to 1 September 2022.
64. In September 2022, the Gulf and Caribbean Fisheries Institute (GCFI) in collaboration with the Secretariat, co-hosted a technical session titled '*Fostering Partnerships to Address Marine Litter in the Wider Caribbean*' during the 7IMDC.
65. The Association of Caribbean States (ACS) in collaboration with the Institute of Marine Affairs (IMA), the Cartagena Convention Secretariat, the Mexican Agency for International Cooperation for Development (AMEXCID), the Centre for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV), and the Regional Training and Technology Transfer Centre of the Basel Convention for the Caribbean (BCRC-Caribbean) convened a 5-day regional training on plastics and microplastics from October 31- November 04, 2022. Over 100 participants attended the webinar which was presented in English, Spanish, and French. The webinar aimed to increase regional understanding of plastic waste origin, its impact, and long-term solutions to combat plastic pollution that will help to prepare the Wider Caribbean region for upcoming negotiations on plastics.
66. Scientific support was provided to increase understanding of blue economy approaches, ocean governance, solid waste, microplastics and wastewater, Integrated Water Resource Management in the Caribbean, as well as policy responses identified.
67. Through the co-execution of the GEF CReW+ Project, several partnerships have been formalized to support the implementation of wastewater pollution prevention activities. Delays in the disbursement (Q4 2022) of GEF CReW+ Project funds has resulted in the extension of several agreements and the late start to activity implementation.
68. The Secretariat signed a SSFA with the Caribbean Water and Sewerage Association (CAWASA) in May 2022 to provide capacity-building initiatives in wastewater management for 4 pilot countries, namely Barbados, Belize, Grenada, and Saint Lucia. A cadre of wastewater operators will be certified at the Association of Boards of Certification (ABC) Levels I or II in both Wastewater Treatment and Wastewater Collection. Implementation of activities is scheduled to start in January 2023.
69. In May 2022, the Institute of Marine Affairs (IMA) and the Centre of Research and Environmental Management of Transport (CIMAB), Regional Activity Centres for the LBS Protocol are supporting the development of technical guidelines for the classification of domestic wastewater, management of freshwater resources, and the development of action plans on marine plastics reduction and nutrient reduction strategies through an SSFA financed by the GEF CReW+ and ACP MEAs III Projects, and SIDA Grant. Activities funded by the SIDA Grant are completed.
70. The Regional Nutrients Pollution Reduction Strategy and Action Plan (RNPRSAP) was used to guide the development of national pollution reduction action plans for one English-speaking and one Spanish-speaking Contracting Party to the LBS Protocol. This initiative will be led by the LBS RACs through funding from the ACP MEA 3 Project. Efforts are ongoing to implement the Regional Nutrients Pollution Reduction Strategy and Action Plan with the support of a technical working group (as per Decision 4, LBS COP-5).
71. Efforts to strengthen water and wastewater management in the Wider Caribbean have been ongoing. A report on [Nature-Based Solutions for Wastewater Management](#) was completed through funding from the Swedish Ministry of Environment.
72. In November 2022, the Secretariat participated in the Gulf and Caribbean Fisheries Institute 75th Annual Meeting (GCFI75). The Secretariat's participation facilitated the sharing of experiences with regional partners on issues related to the SPAW and LBS Protocols and further strengthened the integration of the

two Sub-Programmes.

Main Activities	Indicators of Achievement	Status
<p>Strengthening implementation of the obligations under the Land-Based Sources of Marine Pollution and Oil Spills Protocols and related regional strategies on Marine Litter, Wastewater and Nutrients</p> <p>Development, and/or update and/or implementation of new/existing regional strategies, action plans including guidelines, standards and criteria including possible amendments to the LBS Protocol and its Annexes</p>	<p>a. Number of countries with pollution related policies, legislation and/or regulations updated and/or developed;</p> <p>b. Number of new and/or updated guidelines on marine pollution;</p> <p>c. Number of Training and Capacity Building Workshops</p> <p>d. Number of Contracting Parties with National Plans of Actions developed to address marine pollution, wastewater, marine litter and nutrients</p> <p>e. National/Pilot Projects focusing on pollution reduction activities</p>	<p>Partially Completed</p> <ul style="list-style-type: none"> • Best practices, case studies and models identified and shared with the CPs at regional level; • Partnership opportunities identified • LBS RACs disseminated surveys to collect key information regarding policy/legislation, guideline classification • Funding from GEF CReW+ and ACP MEAs III Projects, GPNM, SIDA Grant to support development of National Plans of Actions • National projects being implemented through the support of GEF CReW+ and ACP MEAs III Projects
<p>Strengthen the capacity of Contracting Parties to respond efficiently to marine pollution incidents through strengthening sub-regional and regional mechanisms and contingency plans,</p>	<p>a. Number of contingency plans updated.</p> <p>b. Number of training and capacity-building workshops</p>	<p>Partially Completed</p> <ul style="list-style-type: none"> • Technical Support to develop Oil Spills Contingency Plan for Barbados • Collaboration with IMO, RAC-REMPEITC, NOAA and the COSTA Program, RAC IMA, INVEMAR to support the initiative • Funding from projects to finance consultancy • Workshop on Oil Spill Contingency Planning to convene Q1 2023.
<p>Implement national/community-based projects on wastewater management, marine litter/plastics and nutrients reduction, reuse & recycling;</p>	<p>a. Number of community-based projects on wastewater implemented.</p> <p>b. Number of community-based projects on marine litter implemented</p>	<p>Partially Completed</p> <ul style="list-style-type: none"> • GCFI & GWP-C's Call for proposals for marine litter and wastewater community-based projects is now closed. • Grants awarded and now being implemented • Funded by ACP MEAs III and GEF CReW+ Projects • Activities under signed national agreements to support initiative

C. Monitoring and Integrated Ecosystem Assessment

73. The Secretariat identified laboratory equipment needs for [GEF IWeco](#) participating countries to support environmental quality monitoring. These will be procured in the first quarter of 2023 due to delays in identifying the more cost-effective procurement approach. This follows a 5-module training series conducted by the United Nations Institute for Training and Research (UNITAR) with the University of North Carolina's Water Institute between March and June 2022. The training series to build support for improving and standardizing laboratory practices for water quality sampling and analysis under the GEF IWeco project.
74. The GEF IWeco project also facilitated a consultancy to support the development of a Regional Environmental Monitoring Data Portal (REMDAP). Once developed, this portal will serve as a clearinghouse mechanism to strengthen the scientific underpinning for regional environmental monitoring and assessment in the OECS. The portal will be a readily available source of reliable data to facilitate evidence-based decision-making by policymakers, non-governmental organizations, academic institutions and the private sector.
75. A Regional Harmonized Approach to monitoring Marine Litter and an Action Plan were developed through GPML-Caribe and are being piloted in selected countries in the region (**See Reference Document: UNEP CEP 2021, Harmonizing Marine Litter Monitoring Manual, A Hybrid Approach**).
76. The development of National Water Information Management Systems (WIMS) was initiated in six beneficiary countries of the GEF CReW+ Project to facilitate access to and the dissemination of water-related data. The countries are Costa Rica, Grenada, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago. This will improve national capacities to analyze and manage spatial water-related data. Technical support is being provided by the United Nations University Institute for Water, Environment and Health (UNU INWEH).
77. The Secretariat developed a regional data and information platform that is being incorporated as part of the UNEP WESR. This regional platform includes all the information generated in the development of the [State of the Cartagena Convention Area \(SOCAR\) Report](#) and the [State of Nearshore Marine Habitats in the Wider Caribbean](#) and will facilitate the compilation of information from national monitoring and assessment programmes, strengthen science-policy linkages, support regional reporting on international agreements, the monitoring of the Secretariat's Regional Nutrient Pollution Reduction Strategy and Action Plan, and Regional Strategy and Action Plan for the Valuation, Protection and/or Restoration of Key Marine Habitats in the Wider Caribbean 2021 – 2030. The platform is being developed for the Secretariat by the University of Geneva and benefits from experiences of the Barcelona Convention Secretariat.
78. The Secretariat continued to update the interactive map on the status of Styrofoam and plastic bag bans in the Wider Caribbean Region.

Main Activities	Indicators of Achievement	Status
National pollution monitoring programmes developed and/or enhanced to include the relevant indicators recommended by the SOCAR Report in Marine Pollution	a) Strengthening of national and as appropriate regional Laboratory Capacity based on needs assessment; b) Technical Recommendations provided for the development and/or strengthening of national recreational water quality monitoring programmes; c) Relationships developed with	Partially Completed <ul style="list-style-type: none"> Potential expansion of regional laboratory network through REMARCO and UNITAR GEF IWeco to fund procurement of laboratory equipment for participating countries identified Trainings to improve

	regional laboratories to facilitate testing and analysis	standardize lab practices to be convened in 2023
Harmonize and standardize the monitoring and assessment methods of pollution and marine litter.	<ul style="list-style-type: none"> a. Protocols for applying good laboratory practices prepared; b. Monitoring Protocols (6 maximum) related to Pollution (eutrophication and contaminants), Marine Litter, and sampling and analysis of microplastics developed; c. Field testing of Harmonized approach to Marine Litter Monitoring conducted. 	Fully Completed <ul style="list-style-type: none"> • Workshops convened on ICEP, Eutrophication, and Nutrients reduction in Jamaica and Barbados • monitoring marine litter and action plan were developed through GPML-Caribe, piloted in the region
Prepare training tools and Guidelines on Integrated Water and Wastewater Management	<ul style="list-style-type: none"> a. Training tools developed 	Fully Completed <ul style="list-style-type: none"> • Rainwater harvesting tool developed through UN Human Security Project •
Develop and implement national training programmes around key pollution issues.	<ul style="list-style-type: none"> a. At least 5 capacity building activities developed to enhance knowledge on monitoring and/or integrated ecosystem assessments including on: (1) sample collection, analysis and monitoring; (2) data analysis, evaluation and reporting; (3) monitoring of specific pollutants and emerging contaminants in recreational water and wastewater effluent; b. Training courses and other capacity-strengthening guidance developed on cross-cutting topics of relevance to SIDS (marine spatial planning as a tool for strengthening blue economy opportunities) 	Partially Completed <ul style="list-style-type: none"> • Workshops convened on ICEP, Eutrophication, and Nutrients reduction in Jamaica and Barbados • CReW+ Academy provided free short courses on water and wastewater management • COSTA Programme on Oil Spill Monitoring and Sargassum. • Activities under the Agreement with LBS RACs, GWP-C, GCFI to support monitoring etc
Strengthen collaboration with RAC REMPTIC and IMO to provide Contracting Parties with technical assistance relating to the remediation of oil contaminated sites, management of oil contaminated wastes, the use of dispersants in oil spill responses, ballast water management, and the management of ship-generated wastes	<ul style="list-style-type: none"> a. Technical assistance provided and national capacities strengthened in the following areas: (a) Ballast Water: Discharge Areas; (b) Ship-Generated Wastes – MARPOL; (c) Antifouling Paints: Marinas & Anchorages and Off-Shore Dredging 	Not Started

D. Ecosystems-Based Management Approaches

79. Under the UN Human Security project in Jamaica the Secretariat implemented rainwater harvesting systems and strengthened the capacity of schools and communities to adopt sustainable practices such as composting, wastewater reuse and recycling systems.
80. In September 2021, CANARI completed a series of five online capacity building sessions for mentors under its partnership with the GEF IWeco Project to strengthen and support small and micro enterprises (SMEs) based in the Caribbean. National GEF IWeco project staff were trained to be climate adaptation mentors to help the enterprises select and implement climate proofing actions, working in collaboration with the business development mentors.
81. Building on previous work of the UNDP GEF CLME+ project, the Secretariat through funding from the ACP MEAs III project will support the implementation of an Ecosystem-based Management project promoting an integrated approach to pollution reduction and marine habitat restoration in Suriname and Guyana. The activity was delayed and will now begin implementation in 2023.
82. Ecosystem-based adaptation will be promoted through a pilot on gender-based climate change action in Saramacca, Suriname on improved management of mangroves. The activity was delayed and will now begin implementation in 2023.
83. The Secretariat supported the development of the full size GEF PROCARIBE+ project proposal 'Protecting and Restoring the Ocean's natural Capital, building Resilience and supporting region-wide Investments for sustainable Blue socio-economic development' which is a follow up to the UNDP GEF CLME+ project (UNEP(DEPI)/CAR IG.43/INF.3). PROCARIBE+ aims to develop sustainable and resilient ocean-based economies through marine spatial planning, marine conservation, sustainable fisheries and addressing land-based sources of pollution, while also considering issues such as gender and climate change. Subject to approval, implementation is expected to commence in 2023.
84. The development of the REMDAP portal builds on a scoping assessment conducted in 2020 to ascertain the feasibility and best options available. The report examined the varied MEA reporting requirements of IWeco project countries, associated data needs and data flows, and presented some scenarios for the establishment of this mechanism, along with the required resources.
85. Following the recommendations of IWeco partners, the OECS will use the REMDAP report as a guide by baseline for the development and implementation of a clearinghouse mechanism to strengthen the process of regional environmental monitoring and assessment in the Caribbean during the next biennium.
86. GWP-C implemented training and capacity-building on integrated water and wastewater management. Efforts are ongoing for the implementation of community-based interventions and the development of knowledge management products with additional financial support from the ACP MEAs III project.
87. In August 2022, GWP-C issued a call for project proposals to implement small-scale capacity-building projects in Integrated Water and Wastewater Management (IWWM) for eligible Caribbean CReW+ countries. Four of GWP-C's partners secured grant funding to implement a short-term, small-scale IWWM projects in their respective countries. These Partners include:
 - [Integrated Health Outreach](#) for their project on 'Water Treatment Systems in **Antigua and Barbuda**'
 - [Dominica Water and Sewerage Company Ltd.](#) for their project on "Constructed Wetland for Wastewater Treatment in **Dominica**"
 - Brightline Institute and Global Partnership Inc. for their project on "Constructed Wetland for Wastewater Treatment in the **Dominican Republic**"

- [Richmond Vale Academy \(RVA\)](#) for their project on "Greywater Systems in **St. Vincent and the Grenadines**".

88. Additionally, an open call for IWWM scholarships of up to a maximum of USD 500 was issued to fund any IWWM-related course of choice. Four scholarships have been approved for nationals from Barbados (1), Grenada (1) and Suriname (2) to complete courses related to IWWM. The scholarships will be awarded upon successful completion of the identified courses by March 2023.
89. The GWP-C in collaboration with our GEF CReW+ Project organized workshops for young persons and the media on Integrated Water and Wastewater Management (IWWM). The workshops was held virtually in September 2022 and was opened to Caribbean youths and journalists residing in GWP-C partner countries or Caribbean CReW+ countries.
90. The Secretariat supported the development of the GPML Digital Platform and coordination on Marine Litter Projects.
91. In October 2022, the University of Geneva hosted a capacity-building training with representatives from the LBS RACs, and INVEMAR, on the use of the regional environmental monitoring platform funded by the GEF CReW+ Project.
92. A Toolkit on Pro-Environmental Youth Engagement was launched in October 2022 under the ACP MEAs III Project. The toolkit was developed by young authors under the Youth Empowerment and Training Initiatives (YETI) in Europe and provides guidance on how to take sustainable action and engage in eco-friendly behaviour at various levels.
93. Knowledge exchange and capacity building between Plan Bleu RAC of the UNEP Mediterranean Action Plan (MAP) and the Secretariat on the piloting of regional environmental platforms and observatories for the Mediterranean and Caribbean respectively to be integrated into the WESR.

Main Activities	Indicators of Achievement	Status
Support continued integration of the LBS and SPAW sub-programmes thought joint activities and capacity building	a) Joint projects and activities designed and implemented	Partially Completed <ul style="list-style-type: none"> • Collaboration through ACP MEAs III project with LBS and SPAW Protocol through Agreement with GWP-C • Regional data and information platform developed to support monitoring of marine pollution and biodiversity
Implement EBM projects in a number of Contracting Parties	a. Number of EBM projects implemented	Partially Completed <ul style="list-style-type: none"> • Implementation of EBM projects in Suriname and Guyana to commence Q1 2023 • Funding support fom ACP MEAs III and GEF IWeco Projects
Support the development and use of Decision-Support Tools for EBM	a) Decision making at policy level using the EBM tools	Not Started?

E. Knowledge Management and Communications

94. Summaries of the SOCAR report, SoMH report and its RSAP were developed for specific target groups to highlight their important role in addressing marine pollution and protecting marine biodiversity, and to encourage their participation in implementing the recommended actions in these publications. Summaries of the State of the Convention Area report are available for policy makers, civil society and the private sector. A combined summary of the SOCAR and State of Nearshore Marine Habitat reports was also developed, along with summaries of the RSAP for policy makers, civil society and private sector. The full reports were launched during the Meeting of Ministers of Environment in Latin America and the Caribbean held in February 2021: <https://www.youtube.com/watch?v=B7LOpJbOgaQ&t=172s>
95. The Secretariat developed promotional materials to raise awareness on the integrated conservation of marine biodiversity and the impacts of marine pollution on human health and marine and coastal ecosystems. These included new factsheets, news articles and social media campaigns. Activities were also coordinated to highlight these issues during commemorative days such as World Environment Day, World Oceans Day, International Coastal Cleanup Day, World Wetlands Day, World Water Day, International Biodiversity Day, among others.
96. Communication and outreach activities on marine litter have included recurring social media campaigns in July (Plastic Free July) and December (Plastic Free Christmas).
97. In the lead-up to the United Nations Ocean Conference held in June 2022, the Secretariat participated in a promotional series on ocean-related issues developed by the Department of Global Communications at the United Nations Headquarters in New York.
98. At the 2022 UN Ocean Conference, the Secretariat attended several side events focused on good governance, climate change, marine pollution and partnerships. In the lead-up to the Conference, the Secretariat also participated in an interview about the work of the Convention and a podcast series on Barbados and the blue economy, featuring the innovative work being done through the GEF IWEco national sub-project.
99. New partnership and participation at Workshop in Barbados on Resilience to Climate Change in Small Island Developing States in the Caribbean Through Integration of Engineered and Nature-Based Solutions showcased examples of IWEco project implementation in Saint Kitts Nevis and Trinidad and Tobago in particular on the use of Nature Based Solutions (NBS) in particular Vertiver Grass
100. The Secretariat through the ACP MEAs III project developed a technical information brief on plastics within the Caribbean, focusing on sources, quantities, presence and impacts. The brief aims to better inform the region's negotiators participating in the Intergovernmental Negotiating Committee to develop an international legally binding instrument on plastic pollution as per UNEA-5.2 resolution 5/14.
101. The Secretariat provided technical input to a research article entitled "[Sources and Leakages of Microplastics in Cruise Ship Wastewater](#)". The article highlights the sources of microplastics in cruise ship wastewater and provides recommendations to cruise lines on how to address and mitigate the issue.
102. Through the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), a co-implementing partner under the GEF CReW+ project, a Regional Compendium of Sanitation Systems and Technologies was launched.
103. With support from the CETA Sub-Programme, support was provided for the review and implementation of the GEF CReW+ Communications Strategy, as well as the review of all communications resources,

including, articles, newsletters, factsheets, videos, media toolkits, social media campaigns, and social media messages. Input was also provided to the project's newsletters, and support provided for the development of a project website, and the overall implementation of communications activities at the regional level.

104. Oil Pollution Preparedness, Response and Co-operation (OPRC) and National Contingency Plan Workshops for Antigua and Barbuda, Bahamas, Barbados, Jamaica and Guyana are scheduled for early 2023.
105. A Regional MARPOL Workshop on Annexes III – V, including Port Reception Facilities was convened in December 2022.
106. In facilitating greater integration between the AMEP and SPAW Sub-Programmes, the Secretariat participated in a side event to the All-Atlantic 2021 Conference on June 2, 2021. The event addressed challenges, solutions, and opportunities behind the spread of Sargassum across the Tropical Atlantic and introduced the Sargassum Information Hub, a platform to launch the updated [2021 Sargassum White Paper](#).
107. The World Maritime University WMU-Sasakawa Global Ocean Institute in collaboration with the Nippon Foundation facilitated a regional conference in Dominica entitled 'Closing the Circle Programme on Marine Debris, Sargassum and Marine Spatial Planning (MDSMSP) for Small Island Developing States (SIDS)' in which representatives from the SPAW and AMEP Sub-Programmes participated.
108. The Secretariat continued to strengthen partnerships at the Caribbean Water and Wastewater Association's (CWWA) 17th Annual Conference and Exhibition. With financial support from the GEF CReW+ Project, 2 Ministers from participating GEF CReW+ countries were able to attend the High-Level in October 2022 to increase awareness of the LBS Protocol's work on integrated wastewater resource management
109. The Secretariat continued to support the annual conferences of the Gulf and Caribbean Fisheries Institute (GCFI) as co-host of GPML-Caribe. At GCFI's 74th Annual Conference held in November 2021, the Secretariat moderated a special technical session on marine litter.
110. The Secretariat participated in the meeting of [Directors and Heads of Maritime Administrations](#) in Paramaribo, Suriname from 28-29 July 2022. The meeting was organized by the International Maritime Organization (IMO) and hosted by the Maritime Authority of Suriname (MAS) to address matters affecting sustainable maritime transport in the Caribbean Sea. Decisions arising from the meeting included the provision of additional support for the development of the regional casualty incident/investigation database, progressing the GloLitter Programme in the region, increased collaboration among Caribbean maritime training institutions and increased support for the gender-based data collection by the regional Women in Maritime Association (WiMAC).
111. The Secretariat continued dialogue to support regional assessments of the Wider Caribbean Region during their participation at the "Risk Forum- Resilience to Climate Change in Small Island Developing States In the Caribbean Through Integration of Engineered and Nature-Based Solutions"
112. The work of the Convention and the work plan to support the implementation of the Regional Seas Directions (RSSD) 2022- 2025 was highlighted during the UNEP Regional Seas Programme 22nd Annual Meeting

Main Activities	Indicators of Achievement	Status
Support the work of CPs to identify appropriate pollution related indicators and targets	a) Regional pilot of the World Environment Situation Room implemented b) Development/improvement of a core set of Indicators relating to pollution	Partially completed <ul style="list-style-type: none"> Regional data and information platform developed to support monitoring of marine pollution and biodiversity Indicators to be identified and circulated to CPs, data gathering through LBS RAC surveys.
Facilitate exchange of best practices, lessons learned, twinnings and experience between and among Contracting Parties	a) Twinning and dialogue activities in support of regional collaboration among SIDS started b) Strengthened web portal and resource catalogue to facilitate information-sharing and learning across the SIDS project portfolio in support of the SAMOA Pathway areas and beyond	Not Started
Facilitate implementation of relevant global campaigns on nutrients, marine litter and wastewater	a) At least one campaign completed per year on each of the three thematic issues of Marine Litter, Nutrients and Wastewater	Not Started

ANNEX I: Summary of Recommendations of the Fifth Meeting of the Scientific and Technical Advisory Committee to the Protocol Concerning Pollution from Land-Based Sources and Activities (5th LBS STAC).

RECOMMENDATION III
SOURCES AND IMPACTS OF MARINE POLLUTION

Nutrients Pollution

1. Contracting Parties **provisionally endorse** the Regional Nutrients Pollution Reduction Strategy and Action Plan subject to further review and comments that would enable a final draft to be submitted to the 5th LBS COP for approval. To facilitate implementation of the Strategy, it is further recommended that the Secretariat:
 - i. **Establish** a sub-group(s) of the Open-Ended Working Group (OEWG) to support implementation of the Strategy including consideration of issues such as monitoring and assessment, targets and indicators, ecological quality, and remote sensing.
 - ii. **Facilitate** sharing of experiences among Parties of the Convention, e.g. USA on nutrient pollution action plans for Gulf of Mexico; and Colombia/INVEMAR on coastal monitoring; and with other Regional Seas Programmes including work done under the European Water Framework Directive for setting ecological objectives.
 - iii. **Use** the UNEP Global Programme of Action (GPA) Global Partnership on Nutrients Management (GPNM) to facilitate further training and capacity building.
 - iv. In collaboration with Contracting Parties, **prioritize needs and actions** required at the national and regional levels including timeframes for implementation, data and capacity gaps and determination of targets and indicators.
 - v. **Identify and/or use** existing opportunities for implementation of the Strategy through pilot projects in high priority areas (hot spots) for nutrient reduction and habitat restoration. This should consider the pollution reduction and habitat restoration investment plans developed by the Secretariat with support of the CLME+ project.
 - vi. **Identify** new funding opportunities including private sector partnerships, in particular with the tourism and agricultural sectors.
 - vii. **Identify** opportunities through the Decade of Ocean Science and UN Decade on Ecosystem Restoration to establish/strengthen enabling conditions.
 - viii. **Implement** Advocacy/stakeholder engagement efforts with regional partners to facilitate uptake, collaboration, and effective implementation.
 - ix. **Prepare** an implementation plan for the Strategy at national and regional levels.

Wastewater Discharges

2. The Open-Ended Working Group) including LBS RACs **provide** technical oversight and input for the finalization of this technical information paper for further review by Contracting Parties and submission to the LBS COP5 for further consideration.

Marine Litter Management

2. Secretariat and the Caribbean Regional Node for Marine Litter **support** a review of existing research and provision of capacity building on microplastics that could aid Contracting Parties in understanding the potential impact of plastics on the coastal and marine environment and human health in the Wider Caribbean Region.
3. Secretariat, LBS RACs and Contracting Parties **work to identify** major sources of marine litter, including regional hotspots and propose mitigating actions.

RECOMMENDATION IV MONITORING AND ASSESSMENT

3. The Open-Ended Working Group **consider** recent reports such as the GEF IWeco lab capacity assessment in identifying priorities for future lab capacity building and training with respect to monitoring and assessment.
4. The Open-Ended Working Group **consider** inclusion of additional monitoring parameters to those identified in the SOCAR and propose methodology that will allow for monitoring of these parameters including for example the indicator of Index of Coastal Eutrophication Potential.
5. Secretariat **maximize the use** of the LBS RACs to provide regional training for ongoing and new projects within their technical areas of competence.

RECOMMENDATION V KNOWLEDGE MANAGEMENT, DATA, AND INFORMATION MANAGEMENT

2. The Secretariat **continue** its efforts to establish synergies between various projects – IWeco, CReW+ – for supporting improved national and regional data and information management systems.
3. The Secretariat **prepare** information management guidelines for the sharing of data and information relevant to the LBS Protocol and recommend that such guidelines be considered within the context of the new CEP Strategy.

RECOMMENDATION VI LBS PROTOCOL RATIFICATION

3. Contracting Parties **support** the ongoing efforts by the Secretariat to work with Contracting and Non-Contracting Parties to the LBS Protocol to, as appropriate, ratify, implement, and report on their implementation of their obligations under the LBS Protocol.

RECOMMENDATION VII POSSIBLE AMENDMENTS TO THE LBS PROTOCOL AND/OR ANNEXES

1. The Secretariat in collaboration with OEWG and the LBS RACs **consider** recommendations from the Technical Papers relating to freshwater and nutrients, and **prepare** an information paper for the LBS STAC6 on possible amendments to the LBS Protocol and/or its Annexes for further discussion and submission of recommendations to the LBS COP6 for further consideration.

RECOMMENDATION VIII

CARIBBEAN LARGE MARINE ECOSYSTEM + PROJECT (CLME+)

3. Contracting Parties **further note** the efforts to develop a new follow up project proposal concept (PIF) to CLME+ entitled PROCARIBE+ which is to be submitted to the GEF by March 24, 2021 for consideration.

Annex II: Decisions of the Fifth Meeting of the Contracting Parties (COP) to the Protocol Concerning Pollution from Land-based Sources and Activities in the WCR (UNEP(DEPI)/CAR IG.43/3)

1. **Endorse** the recommendations of LBS STAC5.
2. **Endorse** for final approval by the Nineteenth Intergovernmental Meeting and Sixteenth Meeting of the Contracting Parties, the Workplan and Budget for the AMEP Sub-Programme for the 2021-2022 biennium, including the prioritization of proposed unfunded activities and modifications agreed during the meeting which include a review and redistribution of allocations to support priority activities that will assist countries in meeting their obligations under the LBS Protocol.
3. **Request** the Secretariat to engage in partnerships with non-governmental organizations and private sector entities to support the implementation of the LBS Protocol in the region including through the provision of funding for unfunded activities in the 2021-2022 Workplan.;
4. **Encourage** Contracting Parties to maximize on opportunities for financial support for capacity-building through ongoing projects and activities that will enable Contracting Parties to comply with their national obligations under the LBS Protocol

Endorse the Medium-Term Strategic Plans presented by RAC IMA and RAC CIMAB and request the development of biennial work plans by the LBS RACs that could be approved as part of the 2023-2024 biennium work plan thus enabling greater integration of RAC activities into future AMEP Work Plans and Budgets.

5. **Request** the LBS RACs to support the Secretariat in resource mobilization and provide technical support and advice to Contracting Parties for implementing the LBS Protocol, and to Non-Contracting Parties for ratification of the LBS Protocol.
6. **Acknowledge** with thanks the significant contribution of the outgoing chair of the OEWG, Ms Stephanie Adrian from the Government of the USA and encourage other Contracting Parties to consider chairing the OEWG during the 2021-2022 biennium, and request that the Secretariat share the terms of reference for the working group with all Contracting Parties.
7. **Adopt** the Regional Nutrients Pollution Reduction Strategy and Action Plan (RNPSAP) and request the Open-Ended Working Group on Monitoring and Assessment to provide technical support and oversight for its phased implementation at national and regional levels subject to availability of funding and to amend its Terms of Reference accordingly
8. **Establish** the following sub-groups of the OEWG to consider issues of importance for the further development of the LBS Protocol: (i) standards and criteria that would include discussions on comparable data, nutrients standards, wastewater effluent standards and defining Class I & II waters, (ii) information management, and (iii) future planning including consideration of emerging issues such as freshwater management, and invite all Contracting Parties to nominate national and/or regional experts to participate actively in the OEWG and new sub-groups established.
9. **Request** Contracting Parties and LBS RACs to submit nominations of national government and non-government experts to the OEWG and the new sub-groups by August 31, 2021.
10. **Request** the Secretariat to strengthen the integration between the LBS and SPAW Working Groups, including the cross representation of experts, when possible, among the groups, to provide increased expert and technical support to the implementation of the AMEP programme of work.
11. **Request** the Secretariat to continue its efforts to promote the work of the RAC REMPEITC-Caribe and encourage greater collaboration among all the RACs of the Cartagena Convention and its Protocols. 13.
12. **Request** the Secretariat to enhance its efforts to finalize the Host Agreement with the Government of

Cuba for the formal recognition of RAC CIMAB as an LBS RAC. 14.

13. **Request** the Cartagena Convention COP to endorse the Revised Template for National Reporting on the Cartagena Convention and its Protocols as contained in UNEP(DEPI)/CAR WG.41/INF.25 Rev.1 reflecting additional questions that would facilitate improved reporting toward the development of future State of the Convention Area Reports. 15.
14. **Further request** the Secretariat to implement measures to make it easier for Contracting Parties to complete and submit national reports including establishing a fixed deadline for submission of these reports. 16.
15. **Recommend** to the Cartagena Convention COP that due to the financial challenges faced by the Secretariat and the importance of exercising financial prudence during the 2021-2022 biennium, that in the short-term, the Secretariat convene its intergovernmental meetings virtually, including the 6th LBS STAC and 6th LBS COP.
16. **Request** the Cartagena Convention COP to encourage all Non-Contracting Parties to the LBS Protocol to become Contracting Parties at their earliest opportunity, and in doing so, the Secretariat should provide Non-Contracting Parties with examples of benefits of ratification including through the achievements of Contracting Parties in addressing marine pollution from land-based sources and activities.

Annex III: Relevant Decisions of the Nineteenth Intergovernmental Meeting on the Action Plan for the Caribbean Environment Programme (19th IGM) and Sixteenth Meeting of Contracting Parties to the Cartagena Convention (16th COP). The full list is available in Information Document (UNEP(DEPI)/CAR IG.45/6).

DECISION I WORK PLAN AND BUDGET

3. **Request** the Secretariat to continue its efforts to strengthen collaboration with regional agencies and relevant Convention Secretariats to enable more effective implementation of the Caribbean Environment Programme work plan.
4. **Encourage** greater involvement and participation of the Bureau, Monitoring Committee and Focal Points in the development and implementation of the work programme of the Caribbean Environment Programme including participation at meetings of the Secretariat.
5. **Further encourage** Contracting Parties, as appropriate, to provide to the Secretariat existing knowledge management products and materials that may assist the Secretariat in the implementation of its proposed activities

DECISION III OPEN-ENDED WORKING GROUP ON MONITORING AND ASSESSMENT

1. **Establish** an Open-Ended Working Group (OEWG) for Monitoring and Assessment to support the work of the LBS Protocol including the finalization of SOCAR for formal dissemination.
2. **Invite** all Contracting Parties who have an interest in participating in the OEWG to indicate that in writing to the Secretariat no later than 15 September 2019.
3. **Requests** that the OEWG, once convened, develop a new Terms of Reference for the and elects a new Chair.
4. **Further requests** that the OEWG work virtually while encouraging the Secretariat to mobilize additional financial sources to enable face to face meetings, as appropriate.
5. **Also requests** that the OEWG establish other Sub-Groups, as appropriate, in order to provide technical guidance for the work of the Secretariat including on areas of concern raised during the meetings of the LBS STAC, LBS COP and meetings of Contracting Parties to the Convention.
6. **Requests** that the OEWG provide a report of its work to the Fifth LBS STAC and as appropriate, to the Fifth LBS COP and Sixteenth Meeting of Contracting Parties to the Cartagena Convention.

DECISION VI RAC/REMPEITC-Caribe

1. **Endorse** the Recommendations of the Ninth Ordinary Meeting of the Steering Committee.
2. **Encourage** the sharing of expertise with Contracting Parties of the Cartagena Convention and the continued focus by the Centre on more practical regional response measures and training in this area.
3. **Urge** the Centre to disseminate information on their capabilities to countries in the Wider Caribbean Region.
4. **Requests** the Secretariat and RAC/REMPEITC to explore potential partnership opportunities with the Caribbean Marine Environment Protection Association (CARIBMEPA).
5. **Also Requests** the Secretariat to explore with RAC-REMPEITC how Stony Coral Tissue Loss Disease (SCTLD) and other potential ballast water borne invasive species or diseases may be addressed through the regional maritime sector and ballast water regulations.

DECISION VII CARTAGENA REPORTING TEMPLATE

1. **Encourage** other governments in the Wider Caribbean Region to ratify the Cartagena Convention and its Protocols.
2. **Encourage** governments to inform the Secretariat of the status and impacts of the implementation of the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region and of its Protocols through the approved reporting template for the Cartagena Convention and its Protocols.
5. **Request** the Secretariat to amend the reporting template to include relevant parameters of the SOCAR.

DECISION VIII STATE OF THE CONVENTION AREA REPORT

2. **Support** the integration of the SOCAR and State of Habitat reports with State of the Marine Environment and Associated Economies (SOMEE) report.
3. **Request** that the Secretariat continue to collaborate and coordinate with the Contracting Parties, the CLME+ Project Coordination Unit and members of the SAP Interim Coordination Mechanism to institutionalize, in alignment with the Convention's geographic and thematic mandate, its long-term role in the collaborative integrated SOMEE reporting effort including visualization and dissemination, pursuing alignment and synergies between the SOCAR-Land-based Sources and State of Marine Habitats reports and the SOMEE approach, and incorporating such a support role to the SOMEE development process as part of the Secretariat's 2019-2020 work programme and beyond.

Annex IV: Intergovernmental, technical/expert and other meetings convened by the AMEP Sub-Programme, LBS RACs and GEF Projects (2021-2022)

Event Number	Programme Area	Title	Venue	Date
	AMEP/CEP	5th Meeting of the Contracting Parties (COP) to the Protocol Concerning Pollution from Land-Based Sources and Activities (LBS) in the Wider Caribbean Region	Virtual	26 July 2021
	AMEP/SPAW/CEP	19th Intergovernmental Meeting on the Action Plan for the Caribbean Environment Programme and 16th Meeting of the Contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region	Virtual	XX July 2021
	GEF CReW+	GEF CReW+ 2 nd Project Steering Committee Meeting	Virtual	27-28 April 2022
	AMEP/Oil Spills Protocol	The Tenth Ordinary Steering Committee Meeting of the Regional Marine Pollution Emergency, Information and Training Centre – Caribe (RAC REMPEITC-Caribe)	Willemstad, Curacao	18-19 May 2022
	GEF IWeco	GEF IWeco's 6th Regional Project Steering Committee Meeting	Port of Spain, Trinidad and Tobago	18-20 July 2022
	AMEP in collaboration with the LBS RACs/SPAW RAC/INVEMAR	Regional Workshop on the Index of Coastal Eutrophication and Harmful Algal Blooms	Chaguaramas , Trinidad and Tobago	25-27 July 2022
	EU ACP MEAs III	ACP MEAs III 3rd Project Steering Committee Meeting	Brussels, Belgium	19-20 October 2022
	AMEP	Regional Eutrophication Workshop	Hybrid	13-14 December 2022
	AMEP	GEF LAC Cities Pre Inception Workshop	Virtual	16 January 2023

Annex V: Internal publications by AMEP and GEF IWeco Project (2021-2022)

No.	Publication	Link
1	AMEP Factsheets	https://www.unep.org/cep/resources
2	Marine Litter Brief	https://www.unep.org/cep/resources/factsheet/regional-and-global-programmes-and-initiatives-address-marine-litter
3	GEF IWeco Newsletters	http://iweco.org/publications/newsletters
4	Cartagena Convention Secretariat Newsletters	https://www.unep.org/cep/resources?type=240

ANNEX VI: Formal papers and presentations by the AMEP Sub-Programme

Papers

Folbert, M. E., Corbin, C. J., Löhr, A. J. (2022). Sources and Leakages of Microplastics in Cruise Ship Wastewater. *Frontiers in Marine Science*, 9. <https://doi.org/10.3389/fmars.2022.900047>.

United Nations Environment Programme (2021). Nature-based Solutions for Wastewater Management: Barriers and Opportunities in the Caribbean. <https://wedocs.unep.org/20.500.11822/36282>

Presentations by AMEP staff

Event Number	Event	Presentation	Venue	Date
	UNEP Regional Seas Programme 22nd Annual Meeting	Christopher Corbin	Mahe, Seychelles	22- 28 May 2022
	UN Ocean Conference (UNOC)	Sarah Wollring	Lisbon, Portugal	27 June- 1 July 2022
	Regional Meeting of Directors/Heads of Maritime Administration	Christopher Corbin	Suriname	27 - 30 July 2022
	Third meeting of the Sustainable Ocean Initiative (SOI) Global Dialogue with Regional Seas Organizations and Regional Fishery Bodies	Christopher Corbin	Busan, South Korea	25-28 October 2022

ANNEX VII: Status of Cartagena Convention Meeting Recommendations and Decisions Matrix**Status of 5th LBS STAC Meeting Recommendations**

Recommendation III Sources and Impacts of Marine Pollution (Nutrient Pollution)	Actions(s) Taken
<i>i. Establish a sub-group(s) of the Open-Ended Working Group (OEWG) to support implementation of the Strategy including consideration of issues such as monitoring and assessment, targets and indicators, ecological quality, and remote sensing</i>	Completed. Chair and Vice Chair confirmed from Trinidad and Antigua respectively. Decision taken to establish one sub-group that will focus on capacity building. It will be co-chaired by the USA and Barbados. Technical experts would be co-opted as needed for other specific thematic issues.
<i>ii. Facilitate sharing of experiences among Parties of the Convention, e.g. USA on nutrient pollution action plans for Gulf of Mexico; and Colombia/INVEMAR on coastal monitoring; and with other Regional Seas Programmes including work done under the European Water Framework Directive for setting ecological objectives.</i>	Ongoing to end of Biennium and to continue into new Biennium. Direct communication with focal points; Social Media Campaigns, 3 Joint Newsletters prepared and disseminated, dedicated interns and UNVs for communications recruited and providing dedicated support on Marine Litter. Participated in 7 IMDC and convened session to showcase experiences in Marine Litter and Plastics Management. Fact Sheets finalized and uploaded on Secretariat website. Through participation at Annual Regional Seas Meeting, collaboration enhanced with OSPAR and Barcelona Convention (Plan Bleu for Information Platform). Regional Nutrients workshop used to share experience of case study development in Barbados and Jamaica.
<i>iii. Use the UNEP Global Programme of Action (GPA) Global Partnership on Nutrients Management (GPNM) to facilitate further training and capacity building</i>	Ongoing to end of Biennium and to continue into new Biennium: Funding mobilized through GPNM, UNEP HQ and Sida to develop national nutrients reduction strategies for Jamaica and Barbados. Results were shared at regional workshop held in December 2022. Regional Workshop on the Index of Coastal Eutrophication Potential convened in Trinidad and Tobago in Jul 2022. GPNM to be used to help support training planned with UNITAR for 2023
<i>iv. In collaboration with Contracting Parties, prioritize needs and actions required at the national and regional levels including timeframes for implementation, data and capacity gaps and determination of targets and indicators.</i>	Ongoing Draft Terms of Reference for Consultant to finalize the new CEP Strategy prepared and selected. Consultant expected to be recruited by January 1st 2023. In preparing Draft Work Plan for 2023/2024, Parties were asked to indicate priorities for inclusion in the new Work Plan which was also informed through bilateral discussions and recommendations from regional project and programme meetings.

Recommendation III Sources and Impacts of Marine Pollution (Nutrient Pollution)	Actions(s) Taken
<i>v Identify and/or use existing opportunities for implementation of the Strategy through pilot projects in high priority areas (hot spots) for nutrient reduction and habitat restoration. This should consider the pollution reduction and habitat restoration investment plans developed by the Secretariat with support of the CLME+ project</i>	Completed. State of Marine Pollution - SOCAR, State of Marine Habitats and Feasibility Assessment used to inform the development of new project proposals and actively disseminated. Reports and findings of reports showcased at various webinars and actively promoted. New Project Proposal Concepts under discussion propose more integrated EBM approaches.
<i>vi. Identify new funding opportunities including private sector partnerships, in particular with the tourism and agricultural sectors</i>	Ongoing to end of Biennium and to continue into new Biennium: Secretariat engaged in development of new project proposals and concepts including for GEF 8, Plastics Programme, and on Blue Livelihoods with Alinia. Endorsement provided on project concept developed through SNAPP..
<i>vii. Identify opportunities through the Decade of Ocean Science and UN Decade on Ecosystem Restoration to establish/strengthen enabling conditions</i>	Completed. Participation and making of presentations at events organized by IOC UNESCO linked to the Decade. Presented at virtual Regional Marine Spatial Planning Forum for Latin America and the the Caribbean held in December 2022.
<i>viii. Implement Advocacy/stakeholder engagement efforts with regional partners to facilitate uptake, collaboration, and effective implementation.</i>	Completed. Updated mailing lists and stakeholder partnerships including GWP C, GCFI, Ocean Sewage Alliance, OECS, CARICOM, CamPam, CAWASA, CWWA, OECS. Template developed to facilitate formal recognition of observes to the Cartagena Convention and its Protocols.
<i>ix. Prepare an implementation plan for the Strategy at national and regional levels.</i>	Ongoing. Signed SSFAs with LBS RACs to support the establishment of regional criteria and standards for Nitrogen (N) and Phosphorus (P) loads in domestic and industrial wastewater discharges. This will form part of the outputs from the work of the LBS RACs
Wastewater Discharges	
<i>2. The Open-Ended Working Group) including LBS RACs provide technical oversight and input for the finalization of this technical information paper for further review by Contracting Parties and submission to the LBS COP5 for further consideration</i>	Completed. Nominations for Thematic Groups received and circulated. Decision taken to have one major sub-group and co-op persons as needed for technical discussions on key thematic areas.

Marine Litter	
2. <i>Secretariat and the Caribbean Regional Node for Marine Litter support a review of existing research and provision of capacity building on microplastics that could aid Contracting Parties in understanding the potential impact of plastics on the coastal and marine environment and human health in the Wider Caribbean Region..</i>	Ongoing This activity was included as part of the Promar, GEF Cities and ongoing work by GCFI on ADLFG. Mapping of flows taking place as part of partnership with FIU. Joint training on Comprehensive 5 day Webinar on Microplastics convened in partnership with ACS with technical support from several Secretariat partners, RACs and RANs. Consultant selected in December 2022 with support from ACP MEA Project to support compilation of existing research.
3. <i>Secretariat, LBS RACs and Contracting Parties work to identify major sources of marine litter, including regional hotspots and propose mitigating actions</i>	Ongoing This activity was included as part of the Promar, GEF Cities and ongoing work by GCFI on ADLFG. Mapping of flows taking place as part of partnership with FIU. Plastic Consultants hired with support from ACP MEA will also support compiling of research presented at the ACS Microplastics Webinars.

RECOMMENDATION IV Monitoring and Assessment	Action (s) Taken
3. <i>The Open-Ended Working Group consider recent reports such as the GEF IWEco lab capacity assessment in identifying priorities for future lab capacity building and training with respect to monitoring and assessment.</i>	Completed. These recommendations were used as the basis for training developed with UNITAR under CReW+ to take place in the first half of 2023. The recommendation to establish network of laboratories was discussed with International Atomic Energy Agency (IAEA) and INVEMAR as a member of the RAN with the potential to expand on the existing REMARCO and have it recognized as a RAN under the Convention. Opportunities for joint capacity building activities will take place in the 2023-2024 biennium.
4. <i>The Open-Ended Working Group consider inclusion of additional monitoring parameters to those identified in the SOCAR and propose methodology that will allow for monitoring of these parameters including for example the indicator of Index of Coastal Eutrophication Potential</i>	Completed. Funds mobilized from UNEP HQ and CReW+ to support training involving UNITAR and LBS RACs. Regional Training Workshop held in July 2022. Harmonized Marine Litter Manual and Action Plan completed. Work expected to continue with REMARCO and training from UNITAR to identify harmonized methodologies for Microplastics and other parameters including Silica etc.

5. <i>Secretariat maximize the use of the LBS RACs to provide regional training for ongoing and new projects within their technical areas of competence</i>	Completed. SSFAs developed with RAC CIMAB and RAC IMA to support the implementation of ACP MEA, CReW+ and funds received from UNEP HQ. Training provided through UNITAR for GEF IWEco countries. LBS RACs supported the design of training webinars on Nutrients and DPSIR planned for first half of 2023.
Recommendation V Knowledge Management, Data, and Information Management	Action (s) Taken
2. <i>The Secretariat continue its efforts to establish synergies between various projects – IWEco, CReW+ – for supporting improved national and regional data and information management systems</i>	Completed. SSFA developed with GRID Geneva with support from multiple projects and taking into account recommendations from IWEco and CReW.
3. <i>The Secretariat prepare information management guidelines for the sharing of data and information relevant to the LBS Protocol and recommend that such guidelines be considered within the context of the new CEP Strategy.</i>	Ongoing. Consultations took place with the Barcelona Convention on their data sharing policies and document shared by them.
Recommendation VI LBS Protocol Ratification	Action (s) Taken
3. <i>Contracting Parties support the ongoing efforts by the Secretariat to work with Contracting and Non-Contracting Parties to the LBS Protocol to, as appropriate, ratify, implement, and report on their implementation of their obligations under the LBS Protocol.</i>	Completed. Workshop for Non Contracting Parties held. Needs identified. Funding identified under CReW+ and ACP MEA. Activities included in SSFAs with RAC CIMAB and RAC IMA. Technical guidance and support provided to countries interested in ratification including Suriname, Saint Kitts Nevis and St. Vincent and the Grenadines.

RECOMMENDATION VII Possible Amendments to the LBS Protocol and/or Annexes	Action (s) Taken
<i>The Secretariat in collaboration with OEWG and the LBS RACs consider recommendations from the Technical Papers relating to freshwater and nutrients, and prepare an information paper for the LBS STAC6 on possible amendments to the LBS Protocol and/or its Annexes for further discussion and submission of recommendations to the LBS COP6 for further consideration.</i>	Ongoing. Included as part of activities for new SSFAs with RAC IMA and RAC CIMAB.
RECOMMENDATION VIII CARIBBEAN LARGE MARINE ECOSYSTEM + PROJECT (CLME+)	Action (s) Taken
3. <i>Contracting Parties further note the efforts to develop a new follow up project proposal concept (PIF) to CLME+ entitled PROCARIBE+ which is to be submitted to the GEF by March 24, 2021 for consideration.</i>	Completed. Secretariat participated in final PSC Meeting, nominated staff and members of RACs to support the development process and participated in the review of the final proposal submitted to the GEF.

Status of 5th LBS COP Meeting Decisions

Decisions	Actions(s) Taken
<p>3. <i>Request the Secretariat to engage in partnerships with non-governmental organizations and private sector entities to support the implementation of the LBS Protocol in the region including through the provision of funding for unfunded activities in the 2021-2022 Workplan.</i></p>	<p>Ongoing: Secretariat engaged in development of new project proposals and concepts including for GEF 8, Plastics Programme, Blue Livelihoods with Alinia. Supported proposal by SNAPP and IMO on Smart Shipping.</p> <p>This will be done in an opportunistic way and when the need arises as part of the development of new project proposals. Small Grants and projects such as GEF Cities demonstrate greater engagement of NGOs and private sector. Secretariat has presented at meetings of the Sustainable Ocean Alliance (SOA) with a view towards enhancing partnerships with youth.</p>
<p>5. <i>Endorse the Medium-Term Strategic Plans presented by RAC IMA and RAC CIMAB and request the development of biennial work plans by the LBS RACs that could be approved as part of the 2023-2024 biennium work plan thus enabling greater integration of RAC activities into future AMEP Work Plans and Budgets</i></p>	<p>Ongoing: Regular Meetings taking place with RACs as part of their support through SSFAs. Work Plans for CIMAB received and IMA is pending.</p> <p>Work Plan received for RAC CIMAB. Other bilateral and regional meetings being used to seek input to work plan. Outline similar to SPAW to be prepared and sent to focal points..</p>
<p>6. <i>Request the LBS RACs to support the Secretariat in resource mobilization and provide technical support and advice to Contracting Parties for implementing the LBS Protocol, and to Non-Contracting Parties for ratification of the LBS Protocol.</i></p>	<p>Completed: LBS RAC providing partnership support through new SSFAs, participation at technical meetings and as member of the OEWG and Thematic Working Groups.</p> <p>SSFAs with the LBS RACs have been approved and activities are underway. Activities under the project will support the work of the Secretariat and encourage ratification of non-Contracting Parties.</p> <p>A meeting of the OEWG and its sub-groups was held on June 02nd and the members were advised of the recently signed SSFAs between the Secretariat and RAC CIMAB and RAC IMA.</p>

Decisions	Actions(s) Taken
<p>7. <i>Adopt the Regional Nutrients Pollution Reduction Strategy and Action Plan (RNPSAP) and request the Open-Ended Working Group on Monitoring and Assessment to provide technical support and oversight for its phased implementation at national and regional levels subject to availability of funding and to amend its Terms of Reference accordingly</i></p>	<p>Ongoing: TORs finalized and disseminated to LBS Focal Points, members of the OEWG and RANs. Outputs of RAC CIMAB, RAC IMA and Nutrients Consultant to be shared with OEWG as soon as submitted.</p> <p>First meeting of the OEWG was held in June and a 2nd meeting is planned for November. Group to review outputs from LBS RACs which have been delayed and for review of the nutrients case studies for Barbados and Jamaica.</p>
<p>8. <i>Acknowledge with thanks the significant contribution of the outgoing chair of the OEWG, Ms Stephanie Adrian from the Government of the USA and encourage other Contracting Parties to consider chairing the OEWG during the 2021-2022 biennium, and request that the Secretariat share the terms of reference for the working group with all Contracting Parties</i></p>	<p>Completed: Requested edits were integrated and the TORs were shared in 3 languages to the LBS focal points, members of the OEWG and RANs.</p> <p>TORs was reviewed by the OEWG during the meeting in June and the Secretariat was asked to insert specific language regarding the Chair of the group. The edits was made in all three languages and the TORs disseminated.</p>
<p>9. Establish the following sub-groups of the OEWG to consider issues of importance for the further development of the LBS Protocol: (i) standards and criteria that would include discussions on comparable data, nutrients standards, wastewater effluent standards and defining Class I & II waters, (ii) information management, and (iii) future planning including consideration of emerging issues such as freshwater management, and invite all Contracting Parties to</p>	<p>Completed: This is operational and would form part of how the thematic groups work and would be reflected in their thematic group guidelines and/or TORs. Decision taken that there will be only specialized thematic group that would focus mostly on capacity building. Chair and co-chair from Barbados and USA identified.</p> <p>Experts were nominated by Contracting Parties, RACs and Observers alike, to provide technical support to the 3 thematic sub-groups.</p>

Decisions	Actions(s) Taken
nominate national and/or regional experts to participate actively in the OEWG and new sub-groups established.	
10. <i>Request Contracting Parties and LBS RACs to submit nominations of national government and non-government experts to the OEWG and the new sub-groups by August 31, 2021</i>	<p>Completed: Nominees were invited to the first meeting of the OEWG and thematic sub-groups. Chair confirmed as Trinidad and Tobago with co-chair as Antigua.</p> <p>Nominations of experts to the OEWG & its sub-groups were re-opened as per the request of the group's members.</p>
11. <i>Request the Secretariat to strengthen the integration between the LBS and SPAW Working Groups, including the cross representation of experts, when possible, among the groups, to provide increased expert and technical support to the implementation of the AMEP programme of work.</i>	<p>Completed: Proposed that there will be participation when appropriate by representatives of SPAW and AMEP WGs. At a minimum, RACs and/or POs from other sub-programmes will attend, where appropriate.</p> <p>A representative of SPAW RAC participated in the Regional ICEP Workshop hosted by the LBS RACs from the 25-27 of July. Limited capacity impacted the ability to have comprehensive cross participation but there was greater integration across the two programme areas</p>
12. <i>Request the Secretariat to continue its efforts to promote the work of the RAC REMPEITC-Caribe and encourage greater collaboration among all the RACs of the Cartagena Convention and its Protocols.</i>	<p>Completed: Three Joint Meetings with all RACs convened - two virtual and one in person. The Secretariat attended the RAC REMPEITC 10th Steering Ctee Meeting in May 2022 and actively promoted the work of RAC REMPEITC in the lead up to that meeting and afterwards. In general, there is more active promotion of work of all RACs through Newsletters and Social Media. Secretariat participated in Regional Meeting of Maritime Directors where the work of RAC REMPEITC was further highlighted during the Secretariat's presentation. Cooperation between RAC REMPEITC and RAC IMA facilitated on Early Oil Spills Warning collaboration with NOAA (COSTA).</p> <p>Representative from RAC REMPEITC was also in attendance at the Regional ICEP Workshop in July. A meeting was convened among the Collaborated with IMO, Caribbean Telecommunications Union (CTU), International Telecommunications Union (ITU), and the Secretariat regarding an assessment of GMDSS as a follow up to the meeting of Regional Maritime Directors.</p>

<p><i>13. Request the Secretariat to enhance its efforts to finalize the Host Agreement with the Government of Cuba for the formal recognition of RAC CIMAB as an LBS RAC.</i></p>	<p>Ongoing: Formal Communication sent to National Focal Point in Cuba and RAC CIMAB. Currently under discussion and review in Cuba. Several follow up E mails sent re: Host Agreement, LBS Protocol Ratification and Host Agreement but limited response. Mission planned for first quarter of 2023.</p> <p>This is one of several issues being discussed with Cuba. The others are: (1) Payment to the CTF and (2) Ratification of the LBS Protocol. Several E mails and letters sent with minimal response. Propose mission in January and February 2023.</p>
<p><i>15. Further request the Secretariat to implement measures to make it easier for Contracting Parties to complete and submit national reports including establishing a fixed deadline for submission of these reports</i></p>	<p>Ongoing: IT Assistant had meetings with UNEP HQ and the Barcelona Convention on possible online mechanisms for reporting. New IT Assistant and Intern assigned follow up responsibilities</p> <p>Formal Requests for Reports should be sent by December 2022. New IT assistant to follow up re online reporting template.</p>