

Wider Caribbean Regional Nutrient Pollution Reduction Strategy and Action Plan (RNPRSAP)

Mitigating Nutrient Pollution in the WCR

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Global & Regional Frameworks

- Sustainable Development Goals: Goal 14.1 on Marine Pollution
- UNEA Resolutions on Nitrogen
- Global Partnership for Nutrients Management (GPNM) – UNEP GPA
- International Nitrogen Initiative (INI)
- Global Campaign on Sustainable Nitrogen Management
- Regional Platform for Nutrients Management (Cartagena Convention Secretariat)
- Multiple GEF Projects

Goal:

To establish a collaborative framework for the progressive reduction of impacts from excess nutrient loads on priority coastal and marine ecosystems in the WCR.

Objectives:

- Assist in defining regional standards and criteria for nutrient discharges
- Support institutional, policy and legal reforms
- Contribute to relevant regional and global commitments
- Contribute to the operationalization of the Caribbean Platform for Nutrient Management
- Contribute to the UN Global Campaign on Sustainable Nitrogen Management

Guiding principles

- Science-based approach
- Building on the existing foundation
- A ridge to reef, integrated watershed approach
- Balancing ecological, social, and economic imperatives
- Alignment with relevant national, regional & global policies, frameworks & targets
- Strategic, preventative actions at source
- Engagement of all key stakeholders
- Adaptive management

RNPRSAP Structure

➤ 9 STRATEGIC PILLARS

Nutrient sources (5), Ecological impacts (2)
Socioeconomic consequences (1), Enabling conditions (1)

➤ IMPLEMENTATION FRAMEWORK

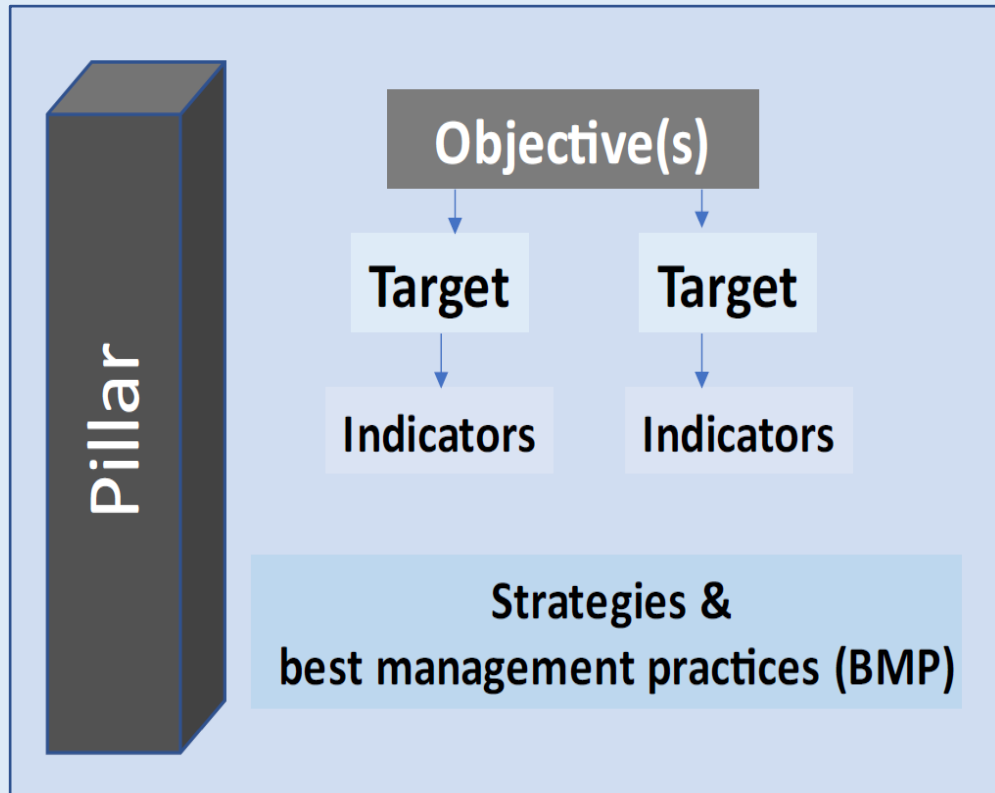
Institutional Implementation Framework
Action Framework (2021 - 2030)

➤ MONITORING FRAMEWORK

Baseline, Targets & Indicators

➤ COMPENDIUM OF BEST MANAGEMENT PRACTICES

➤ RECOMMENDATIONS



Process of Development of WCR-RNPRSAP

SSFA between IMA and UNEP
Signed March 2020 (Work plan originally 6 months)



March- July 2020 Technical input to the development of Chapters 2, 3 & 4.



Procurement of external consultant (August 2020), Originally 9 weeks contract to end November 2020. Integration of sub regional reports, Development of Chap 5 Action Plan by Consultants



Review of Document in January 2021, Chapter 5



Submission of draft document on all Chapters for review March 2021.



Finalization of 2nd Draft March 2021 –
Pre LBS STAC & LBS STAC 5



Finalization of 3rd Draft following comments from Contracting Parties -
Pre CoP, LBS CoP 5

Development of sub regional reports on chapters 2, 3 and 4 by
RAC-IMA (English and French)
RAC-CIMAB (Spanish)
Federal Para University (NBSLME)

Literature review, use of
Questionnaires sent to Countries

Impact of COVID-19-Delay

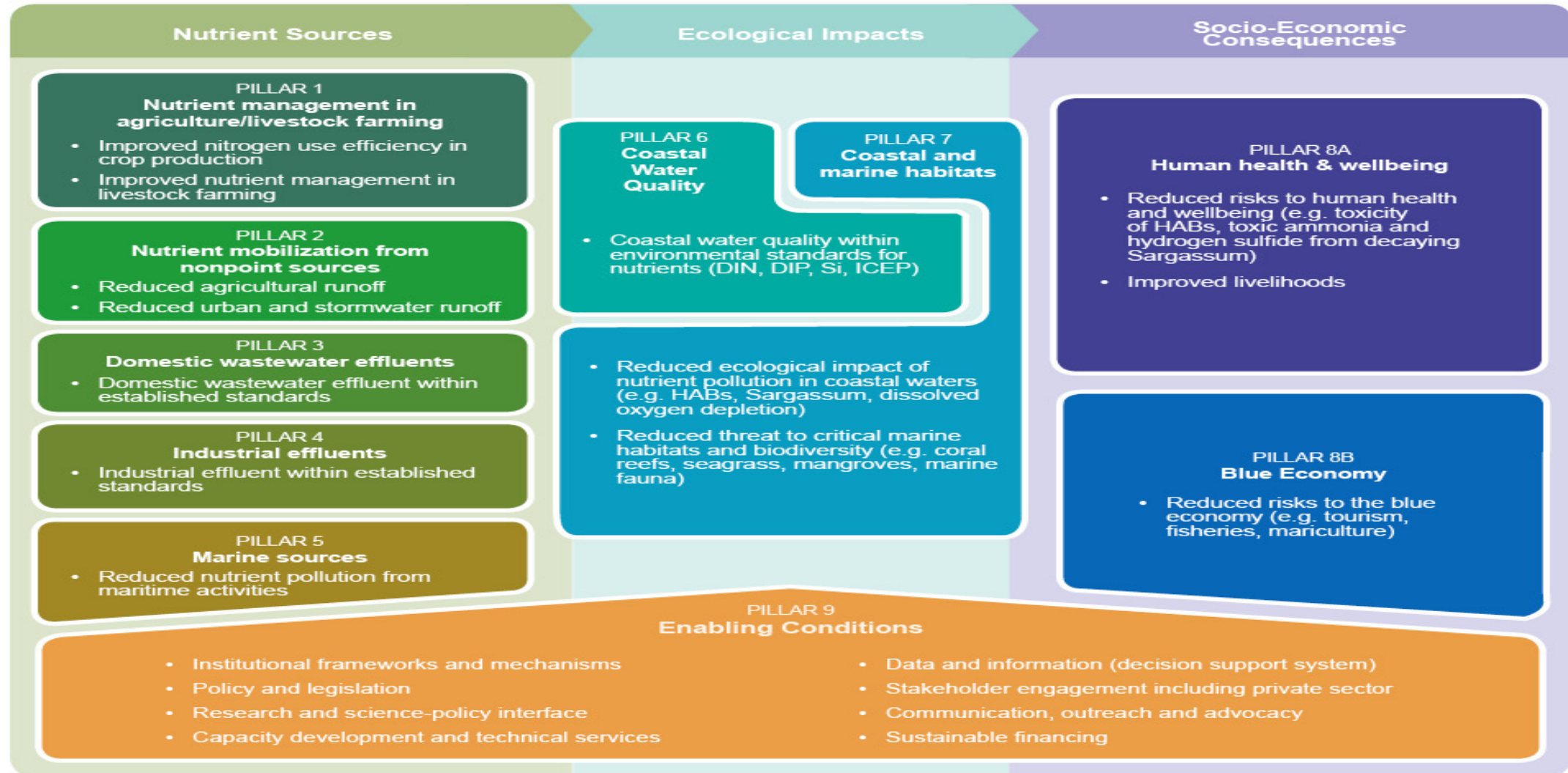
Review by CAR/RCU, UNEP, RAC-IMA, RAC-CIMAB, Para University, LBS focal points/working group, CLME+, UNEP ROLAC, GPNM, CARPHA, OECS, CCAD/SICA, FAO, CARICOM

Summary of conditions at the regional and national levels

The WCR has many strengths

- Cartagena Convention & LBS Protocol is an ideal framework BUT needs Increased Ratification & Greater Focus on Nutrients e.g. Protocol Text and/or Annexes
- Wide disparity: *institutional frameworks & mechanisms, policy & legislation, programmes/strategies, technical capacity, standards & criteria, monitoring & data availability, environmental assessments, etc.*
- Governance mechanisms exist for environmental management including pollution, but few specific to nutrient pollution
- Approach is mainly 'end-of-pipe' solutions
- Lack of comprehensive national policies for integrated resource management & pollution prevention
- Major weaknesses, gaps and barriers need to be addressed for effective implementation of the RNPRSAP

STRATEGY STRUCTURE: PILLARS AND OBJECTIVES



Pillar 1: Sustainable nutrient management in agriculture

Objective 1.1. Improved nitrogen (nutrient) use efficiency (NUE) in crop production

BMP examples: '4Rs' approach (right fertilizer, right rate, right time of application, right placement); nutrient recovery and recycling (BMP Compendium)

Target	Indicator
Halve nitrogen waste from all sources by 2030 (Colombo Declaration)	% reduction in N waste; NUE
SDG 2.4: Sustainable food production systems and resilient agricultural practices	Proportion of agricultural area under productive and sustainable agriculture; UNECLAC complementary indicator: Fertilizer use intensity
SDG 12. Production-based nitrogen emissions: Long-term objective is a value of 2 by 2030.	
Post-2020 Global Biodiversity Framework, Target 17: Eliminate harmful subsidies by 2030	Potentially harmful elements of government support to agriculture (environmentally harmful subsidies) as a percentage of GDP

Pillar 3: Domestic wastewater effluent

Objective 3.1. Domestic wastewater effluent meeting standards for nutrients

BMP examples: Nature-based solutions in combination with hard engineering, recovery of N and P from domestic wastewater, reuse of treated sanitation waste (e.g., fertilizer, irrigation, biogas production)

Target	Indicator
Regional criteria and limits for N and P in domestic wastewater effluent, and associated target(s) to be established under the LBS Protocol, in consultation with member states	<p>% discharge compliant with N and P effluent standards.</p> <p>N and P loads and concentrations in wastewater effluent.</p>
SDG 6.3: Improve water quality by reducing pollution, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	<p>% domestic and industrial wastewater flows safely treated. Long-term objective for this indicator is 100 % of wastewater treated.</p> <p>% of water bodies with good ambient water quality.</p>

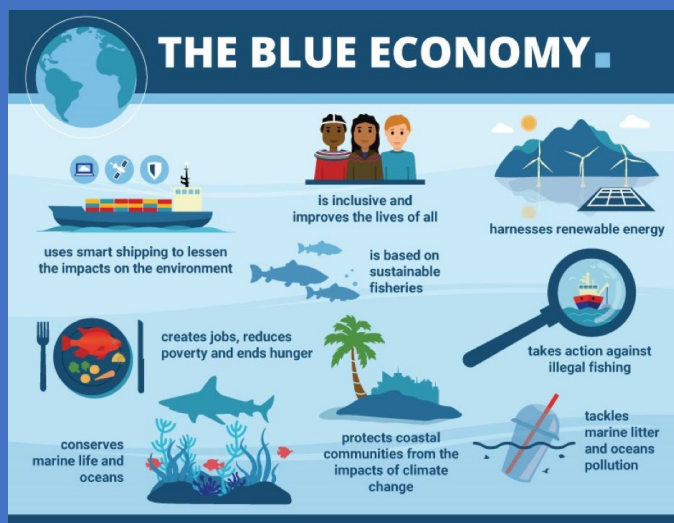
Pillar 6: Coastal water quality

Objective 6.1. Coastal water quality meeting environmental standards

Target	Indicator
SDG 14.1. By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including nutrient pollution	Index of Coastal Eutrophication Potential (ICEP)
SDG 6.3. By 2030, improve water quality by reducing pollution....	% of bodies of water (rivers, groundwater and coastal waters) with good ambient water quality
Regional targets to be established: e.g. Coastal waters (Class I and nutrient hotspots) restored to 'good' status (or natural levels of N and P) by 2030. Note: Criteria and standards for 'good' status to be developed and approved by member states	<ul style="list-style-type: none"> • Concentration of DIN, DIP, Chl-a, TSS, DO (bottom water) • DIN, DIP, Si loads at river mouths (NEWS model) • Proportion of marine area meeting standards

BMP examples: Restoration/ protection of coastal vegetation, ecosystem-based approaches (integrated watershed and coastal area management, marine spatial planning) in combination with BMPs to address nutrient pollution sources

Pillar 8: Human wellbeing & the blue economy



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Objective	Target	Indicator
8.1. Reduce risks to human health and wellbeing	SDG 3.9. By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	<ul style="list-style-type: none"> -SDG 3.9.2. Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene. -Number of persons affected/ type of illnesses per year. -Annual cost of addressing human health impacts. -Number of advisories for polluted water per year. - Number of shellfish beds and fisheries closures per year.
8.2. Reduced risk to livelihoods	No loss of livelihoods linked to nutrient pollution (TBD)	<ul style="list-style-type: none"> - Number of persons affected per year. - Average loss in income per year.
8.3. Reduced risks to the blue economy	TBD	<ul style="list-style-type: none"> - Economic losses per year by sector. - Job losses per year by sector. - Opportunities created. - Economic cost of mitigating nutrient pollution/addressing impacts.

Pillar 9: Enabling conditions for addressing nutrient pollution

Objective 9.1. Establish enabling conditions for addressing nutrient pollution and its impacts in the WCR

Targets

- Enhance institutional frameworks and mechanisms
- Promote policy and legislative reforms
- Improve data and knowledge base and decision support system
- Improve science-based policy and decision-making
- Strengthen capacity
- Increase stakeholder involvement, buy-in and awareness
- Promote development of sustainable financing mechanisms

Implementation

- The RNPRSAP is to be implemented primarily through actions at the national level.
- Alignment of the strategy with the 2030 Sustainable Development Agenda, CBD Post-2020 Global Biodiversity Framework, Colombo Declaration & UNEA Declarations; Cartagena Convention LBS Protocol & other relevant MEAs.
- The RNPRSAP also aligns well with the UN Decade of Ocean Science, UN Decade on Ecosystem Restoration, and the UNEP-CEP Marine Habitats Strategy.
- Coordination across all levels & strategic partnerships will be imperative for cost-effective and efficient implementation.

Institutional implementation framework

Level	Organizations/Stakeholders
Global	UNEP, FAO, UNDP, IMO, GPA, GPNM, PAHO/WHO
Regional	UNEP CAR/RCU Cartagena Convention Secretariat (responsible for coordinating implementation supported by the LBS RACs and RAN, LBS Protocol STAC and Monitoring and Assessment Working Group), GPNM-Caribbean, CLME+ ICM.
Sub-regional	CARICOM, SICA/CCAD, OECS, and ACTO - Support implementation of the strategy among member states, by integrating the strategy and action plan into their relevant programmes; and facilitating stakeholder engagement and awareness raising.
National	Countries (Cartagena Convention and LBS Protocol Contracting and Non-Contracting Parties) will be responsible for implementation at the national and local levels. Increased ratification of the Convention and LBS Protocol will greatly contribute to achieving the objectives of the strategy.

Partnerships with technical and programmatic stakeholders from civil society, the **private sector** and academia, among others, and engagement with financial institutions will be critical to support roll out.

Action framework: Line of Action & Activities

Regional

- Menu of actions from which countries can select according to their specific context/needs.
- The RNPRSAP must be adapted to the local/national contexts including the main source(s) of nutrient pollution and priority watersheds or coastal areas.
- Actions must be prioritized and targeted to ensure that limited resources are allocated where they are most needed.

Action framework- Lines of Action & Activities

Activities are included for
each line of action

National

- Institutional frameworks and mechanisms
 - Policy, legislation, and regulatory frameworks
 - Stakeholder engagement/communication/public awareness
 - Characterize and prioritize watersheds/sources
 - Screen and classify coastal waters
 - Research
 - Criteria and standards
 - Monitoring, data collection, assessment
-
- Capacity building
 - Incentive programmes
 - Sustainable financial plan
 - Nutrient reduction targets and allocation of total allowable pollution loads
 - National nutrient pollution reduction action plan (watershed action plan) – based on regional strategy
 - Implement action plan
 - Monitoring and adaptive management

Action framework: Timeframe

The 2021-2030 timeframe for implementation is aligned with global targets (SDGs, Post-2020 Global Biodiversity Framework, and Colombo Declaration), although the response time of the system to interventions is unknown at this time.

The timeframe is divided into two blocks of 5 years each:

- 1st time period focuses on establishing enabling conditions and other preparations
- 2nd time period focuses on on-the-ground implementation. Provisions must be made for differences in capacity, institutional and policy frameworks, etc. among the countries, with some countries requiring more time to implement the strategy than others.

5th LBS STAC Recommendation: Regional Nutrients Strategy

Contracting Parties provisionally endorse the Regional Nutrients Pollution Reduction Strategy 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:

- Establish a sub-group(s) of the Open-Ended Working Group to support implementation of the Strategy including consideration of issues such as monitoring and assessment, targets and indicators, ecological quality, and remote sensing.
- 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.
- Use the UNEP Global Programme of Action (GPA) Global Partnership on Nutrients Management (GPNM) to facilitate further training and capacity building.
- 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.

Recommendation cont.

- Consider the issue of Nutrients in any proposed review of the text of the LBS Protocol or its Annexes and the implications for the structure of the Protocol when presented at the next LBS COP.
- 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.
- Identify new funding opportunities including private sector partnerships, in particular with the tourism and agricultural sectors.
- Identify opportunities through the Decade of Ocean Science and UN Decade on Ecosystem Restoration to establish/strengthen enabling conditions.
- Implement Advocacy / stakeholder engagement efforts with regional partners to facilitate uptake, collaboration, and effective implementation.
- Prepare an implementation plan for the Strategy at national and regional levels.

Secretariat Responses following LBS STAC 5

Technical Edits & Corrections:

All were incorporated & References updated

Targets & Indicators:

Reflected Global Commitments. Others to be developed by Contracting Parties based on regional conditions

Linkages with other Regional Strategies:

Within framework of new 2021-2030 CEP Strategy, supports Annex III & IV of LBS Protocol, & implemented with Regional Habitat Strategy & Action Plan

Resources needed for national & regional implementation:

Will require resource mobilization, supported by projects like CReW+, ACP MEA & IWEco

Draft Work Plan 2021/2022

THEME B: Land and Marine-Based Sources of Pollution

- 2.2 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
- 2.4 National and Pilot projects implemented on marine litter, nutrients, wastewater.

Expected Outputs:

- a) Regional Strategy launched & used as basis for developing new project proposals & partnerships
- b) Mandate of existing Working Group expanded and/or new Working Group established at 5th LBS COP to facilitate a harmonized approach to nutrients reduction at a regional level
- c) Setting regional criteria and standards for N and P loads in domestic and industrial wastewater discharges (subject to funding)
- d) Partnership opportunities identified for integrated approaches to address sargassum & nutrients.
- e) Development of new Knowledge Management Products, Fact Sheets etc. on Nutrients

Activity 2.3.1	Convene national/regional capacity building meetings & workshop(s) involving at least 10 non-Contracting Parties to the LBS Protocol on pollution.
Activity 2.3.2	Develop national pollution reduction action plans for at least 5 Contracting Parties to the LBS Protocol with a priority focus on national marine litter/plastics reduction (at least two), domestic wastewater and <u>nutrients reduction strategies and action plans</u>.
Activity 2.3.3	Implement local/national Ecosystem-based Management (EBM) projects promoting an integrated approach to pollution reduction and habitat restoration in at least two selected countries who are parties to both the LBS and SPAW Protocols. (Suriname and Guyana)
Activity 2.3.4	Develop/Update national legislation and/or regulations on <u>wastewater effluent discharges</u> in at least 6 Contracting Parties to the LBS Protocol.
Activity 2.3.5	Implement innovative decentralized, rural community based interventions for wastewater management in at least 4 Contracting Parties.



THANK YOU/GRACIAS/MERCI

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