



UNEP/MAP Barcelona Convention:

Mediterranean Action Plan - Strategic action programme to address pollution from land-based activities

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**Mediterranean
Action Plan
Barcelona
Convention**

**Nutrients policy coordination at the
regional level: Experiences from Regional
Seas Conventions & Action Plans
29 August 2024, Online**

UNEP/MAP – Barcelona Convention

Regional action for environment and development bringing together the 21 Mediterranean countries and EU.

- Regional Multilateral Environmental Agreements (UN Treaty and Protocols)
- Redesigned to align the system with UN sustainable development agenda
- Addressing a broad spectrum of issues of marine and coastal environment and sustainable use of resources

48 years of regional collaboration to fulfill the vision of a healthy Mediterranean Sea and Coast that underpin sustainable development in the Mediterranean.



Albania



Algeria



Bosnia
Herzegovina



Croatia



Cyprus



Egypt



France



Greece



Israel



Italy



Lebanon



Libya



Malta



Monaco



Montenegro



Morocco



Slovenia



Spain



Syria



Tunisia



Turkey



The European
Union

MAP - Barcelona Convention: Overview

The Convention adopted in 1976

The Convention is complemented by seven Protocols:

- Dumping Protocol
- Land Based Source Protocol (LBS)
- Prevention and Emergency Protocol;
- Specially Protected Areas and Biological Diversity Protocol
- Offshore Protocol
- Hazardous Wastes Protocol
- Integrated Coastal Zone Management Protocol



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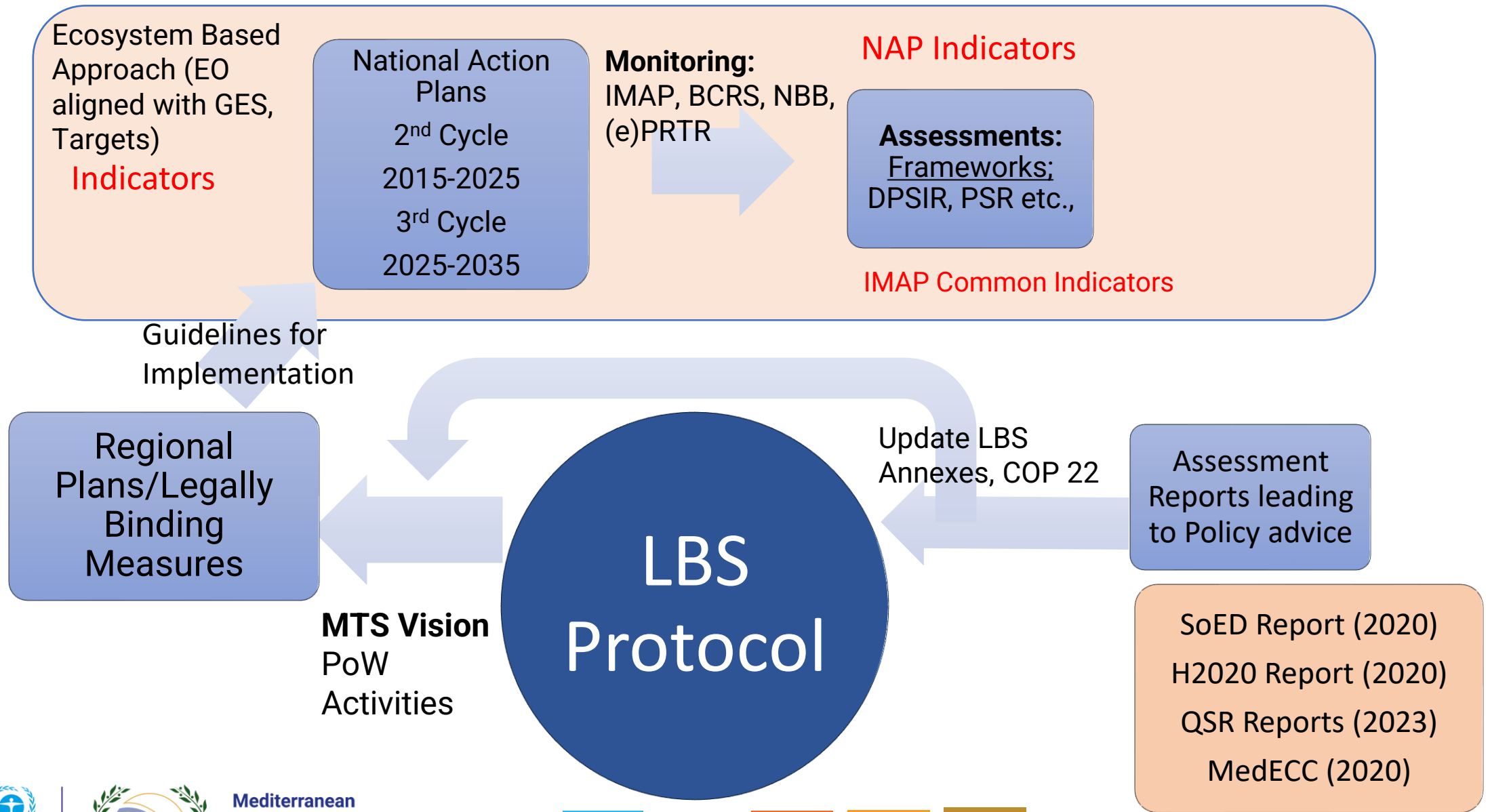
The Mediterranean Action Plan (MAP) is a platform for regional cooperation in protecting and enhancing the marine and coastal environment while promoting sustainable development in the Mediterranean region.

“Progress towards a healthy, clean, sustainable and climate resilient Mediterranean Sea and Coast with productive and biologically diverse marine and coastal ecosystems, where the 2030 Agenda for sustainable development and its SDGs are achieved through the effective implementation of the Barcelona Convention, its Protocols and the Mediterranean Strategy for Sustainable Development for the benefit of people and nature”

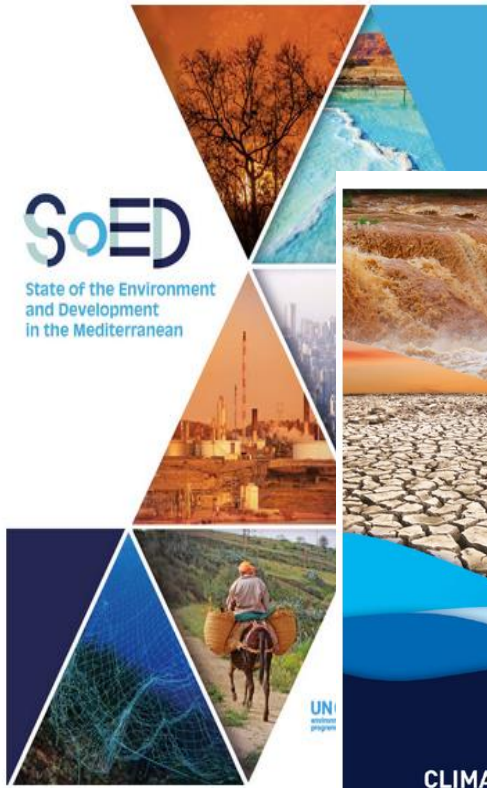
MTS 2022-2027 Structure – Main Programmes

Thematic programmes	1. Towards a pollution and litter free Mediterranean sea and coast embracing circular economy	4 Outcomes	6 Indicators/Targets
	2. Towards healthy Mediterranean ecosystems and enhanced biodiversity	4 Outcomes	7 Indicators/Targets
	3. Towards a climate resilient Mediterranean	4 Outcomes	4 Indicators/Targets
	4. Towards the sustainable use of coastal and marine resources including circular and blue economy	4 Outcomes	6 Indicators/Targets
Foundational programme	5. Governance	5 Outcomes	6 Indicators/Targets
Enabling programmes	6. Towards monitoring, assessment, knowledge and vision of the Mediterranean Sea and Coast for informed decision-making	3 Outcomes	5 Indicators/Targets
	7. For informed and consistent advocacy, awareness, education and communication	3 Outcomes	6 Indicators/Targets

Streamlining of respective MAP legal, policy, strategic and Ecosystem Approach related objectives and commitments throughout



Assessment Reports



This United Nations Environment Programme Mediterranean Action Plan (UNEP/MAP) report provides the most comprehensive assessment of the state of the environment and development in the region. It includes a set

The First Mediterranean Assessment Report (MAR1) prepared by the independent network of

This joint report by the European Environment Agency (EEA) and the

The first Quality Status Report for the Mediterranean – MED QSR (2017)

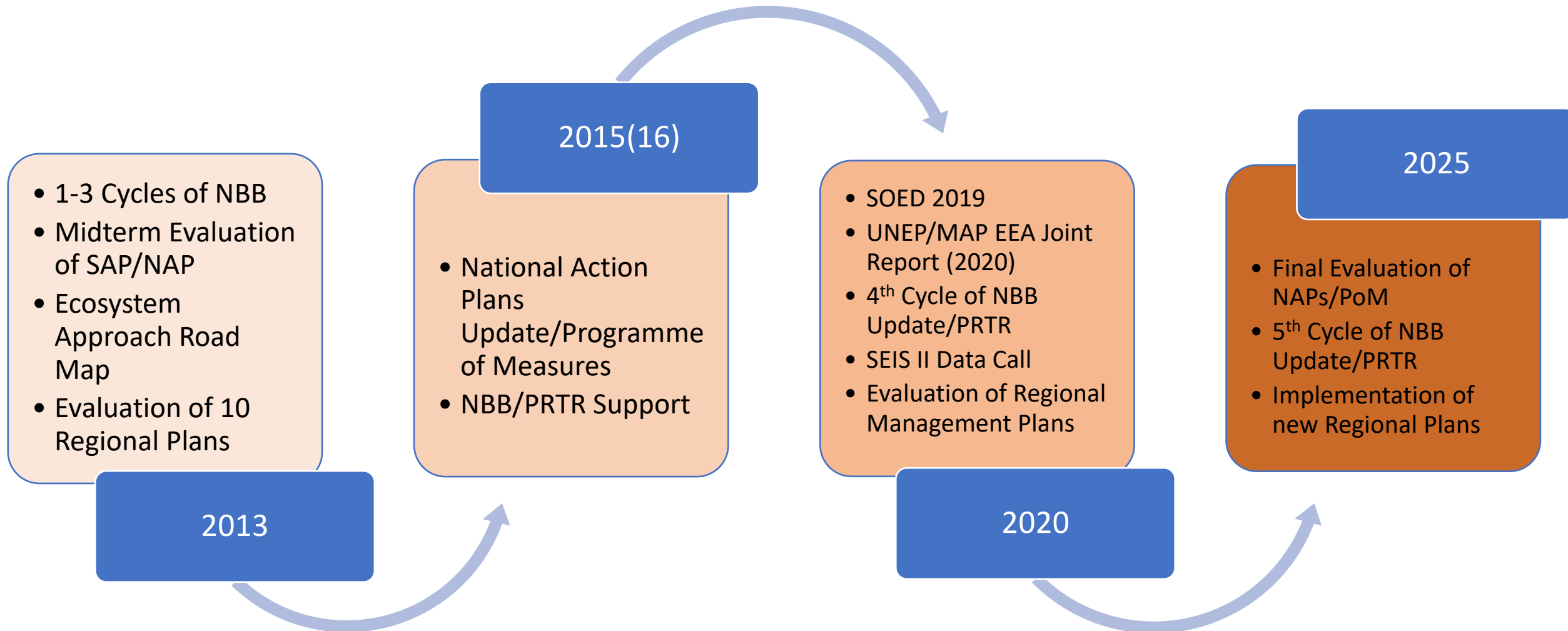


2017



The Mediterranean Quality Status Report (MED QSR) is an important UNEP flagship publication for assessing the status of the Mediterranean ecosystem and the achievement of Good Environmental Status. The UNEP Mediterranean Action Plan (UNEP/MAP) released the MED QSR 2023.

Timeline and milestones during the NAP Implementation



Findings of Midterm NAP Evaluation (2020)

Legends on the criteria for outlook	
	Based on the current information and trends (Indicators) in 2015-2020, there is a need for significant focus and substantive investment to implement the requirements until 2025
	The requirements are highly likely to be implemented until 2025.
	Despite perturbances, the requirement could be implemented until 2025, however, it will need some focused efforts as well as investment.
	No data is sufficiently available to have a conclusive evidence-based evaluation.

The general conclusions are summarized for each EO:

EO5 : Eutrophication

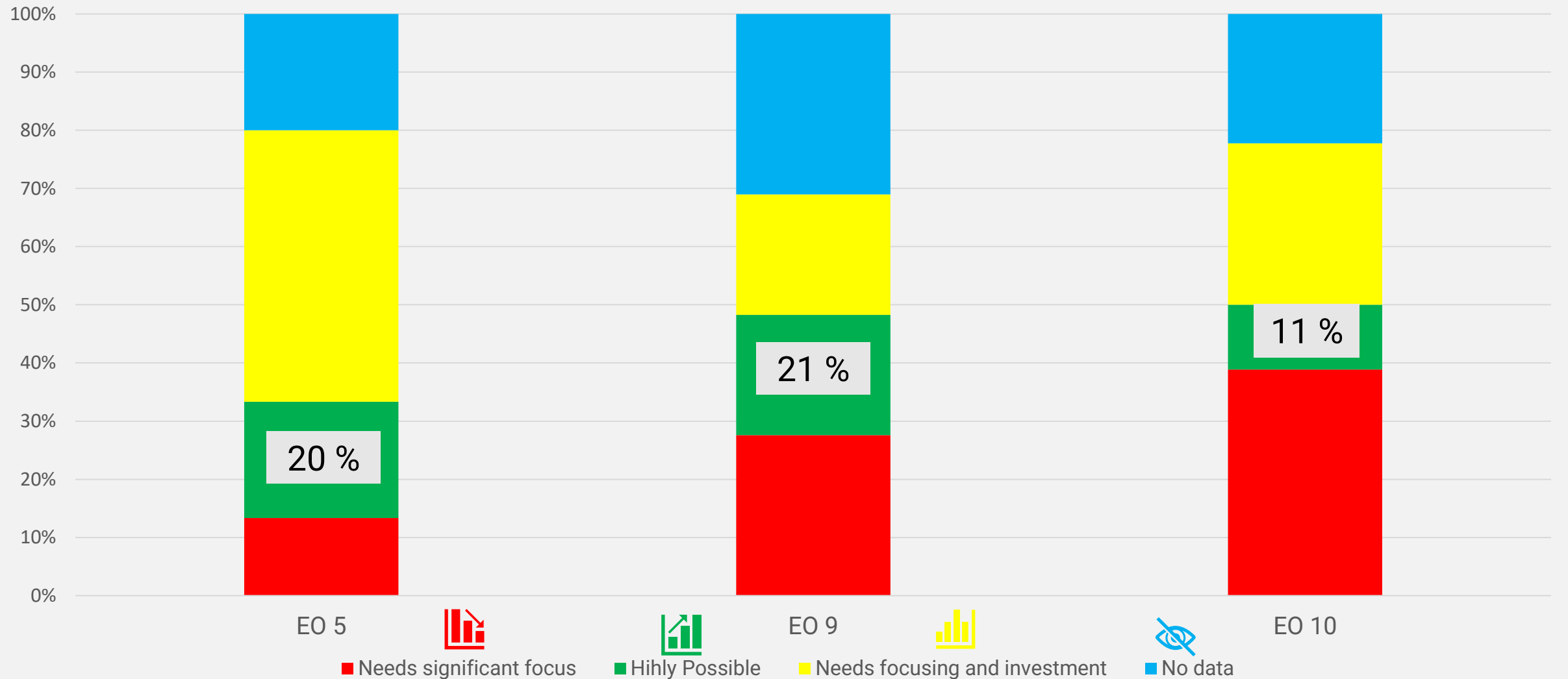
EO9 : Contaminants

EO10 : Marine Litter

NAP/PoM Requirements (Responses/Actions)		Effect of the Response/Actions on <u>Decrease on “Pressures” or/and Improvement on the “State”</u> (2015-2020)	Outlook (2020-2025)
Policy	Enforce the adopted ELVs by monitoring discharges from municipal wastewater treatment plants into the environment	Enforcement is a big challenge in the regions especially with some countries where gaps do exist regarding the implementation of formal procedure for authorizations, monitoring and reporting system. Approximately, less than half of Contracting Parties have not yet, consolidated formal authorization system. Despite efforts made to overcome this gap, enforcement remains, due to one or another reason, the biggest challenge in the Mediterranean.	
	Adopt emission limit values (ELV) for BOD5 in urban wastewater after treatment in accordance with the requirements of the “regional guideline on the reduction of BOD5 from urban wastewater”	Almost all Contracting Parties have legislations regulating setting ELVs for urban wastewater in line with NAPs and Regional Plans. The process is on good track, where only a few countries needs to amend their national regulations to comply. For CP which are members state of EU, Directive 91/271/EEC on urban wastewater treatment is in place.	
Legal and institutional	Monitor discharges from municipal wastewater treatment plants and take necessary measures to enforce national regulations	More than half of the Contracting Parties have established monitoring programmes, as indicated in NAPs and Regional Plans of their discharges from their Urban Wastewater Treatment Plans, especially in bigger agglomerations. Work is in progress for consolidating monitoring and reporting plans in Albania, Bosnia & Herzegovina, Egypt, and Montenegro and partially Morocco.	
	Report on the implementation of the measures on the reduction of BOD5 from urban wastewater and on their effectiveness [On a biennial basis]	The Contracting Parties are regularly reporting the measures for the implementation at national level under LBS Reporting Format. The reporting rate has been slightly in increase, and the Compliance Committee is monitoring and advocating further increase.	
Prevention and Pollution control	Ensure that all agglomerations of more than 2000 inhabitants collect and treat their urban wastewater before discharging them into the environment	Collection and treatment of municipal wastewater is generally on the rise, as is wastewater generated as a result of the steady increase in population in the region. However, this rise is mostly in large agglomerations. For small agglomerations, especially in rural areas, the collection of wastewaters is still a major problem for some countries, yet alone the sufficient treatments after collection is not in place for smaller agglomerations. (For the agglomeration more than 100.000, see the requirement below)	
	Prevention of direct and indirect effects of nutrient over-enrichment in the marine environment	The state of eutrophication still remains the same or has changes slightly since 2015. The hotspots of eutrophication remain the same. Indication that either prevention measures were limited, or less likely, the status would need more time to recover.	

NAP/PoM Requirements (Responses/Actions)	Effect of the Response/Actions on <u>Decrease on “Pressures” or/and Improvement on the “State”</u> (2015-2020)	Outlook (2020-2025)
Reduce nutrient inputs, from agriculture and aquaculture practices into areas where these inputs are likely to cause pollution	Since 2015 up until 2019, no major shift on reducing the nutrient import from agriculture or aquaculture has been made. In 2019, UNEP/MAP initiated the preparation of two relevant management plans for agriculture and aquaculture. Considering the data is very scarce, UNEP/MAP has initiated a preparation of estimation techniques for non-point sources and aquaculture to be able to monitor the situation in coherent and compatible data.	
Industrial Food Plants which discharge more than 4000 PE into water bodies shall meet the following requirements: COD 160 mg/l or TOC 55 mg/l and BOD 30 mg/l	The food packaging sector remains to be one of the dominant sectors in region regarding releases of nutrients. However, not all Contracting Parties have adopted the ELVs in the NAPs needed to urgently improve or modify national regulations ensure compliance with the regional plan or national action plans. Contracting Parties which are also member states of EU, have developed a number of BEP and BAT; however, it is not possible to track the progress for each individual country.	
Dispose all wastewater from industrial installations which are sources of BOD, nutrients and suspended solids	More than half of the Contacting Parties had ELV in place especially for CP which implement and transpose the Directive 2010/75/EU (Industrial Emission Directive). It should be noted that the ELVs in this directive are set in BATs and BREFs. Despite further steps are needed to ensure a full implementation, it is expected that industrial wastewater treatment will be more on focus in coming years. It should be noted that the majority of nutrients are discharged not from industry but from cities. Also, it is known that, the transfers from industry to UWWTPs are evident.	
Promotion of separate collection of rain waters and municipal wastewaters	There is no sufficient data regarding the collection of rainwater (storm water) and its disposal. It highly depends on the date on the collection system establishment and the need for such collections. UNEP/MAP is currently developing regional plan on urban storm water where the targets will be set.	
Coastal cities and urban agglomerations of more than 100,000 inhabitants are connected to a sewer system	Large coastal cities seem to improve their collection and connection to sewer systems. Detailed analyses especially in the south show a stark difference between urban and rural population access to basic sanitation services. Contrary to rural areas, improvement in large coastal cities are visible; however, not fully sufficient to match the increasing levels of population and tourism fluctuations.	
Take necessary measures to establish adequate urban sewer and wastewater treatment plants that prevent run-off and riverine inputs of litter	The leakage of marine litter from unregulated dumpsites, as well as from municipal wastewater treatment plans seem to be still a big challenge. Especially, when the evidence indicates the increasing number of marine litter in the marine environment. There are no sufficient data to evaluate the status of the pressure or prove an increases quality of the state.	
Limit concentrations of key nutrients in the marine environment to levels which are not conducive to eutrophication	Evidence shows that the eutrophication hotspots in the Mediterranean still remain. The distributions of Chl a confirm that the Mediterranean Basin is largely oligotrophic in the centre, with a Chl a gradient from west to east. The recognized hotspots in the Alboran Sea, Gulf of Lion, Gulf of Gabès, Adriatic, Northern Aegean and the southeast Mediterranean (Nile-Levantine) are clearly visible.	

Outlook for NAP/PoM Measures at Regional Level (as of 2020)



Biennium 2020-2021: Update of Legal Framework, endorsed by COP 22, Antalya, Turkiye (December 2021)

Decision IG.25/8: Regional Plans on Urban Wastewater Treatment and Sewage Sludge Management in the Framework of Article 15 of the LBS

Decision IG.25/5: Amendments to Annexes I, II and IV to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (LBS Protocol)

The Regional Plan on UWWT is regulating the **collection, treatment, reuse and discharge of urban wastewaters** and the pre-treatment and **discharge of industrial wastewater entering collecting systems** from certain industrial sectors.

The Regional Plan on Sludge is to ensure effective reuse of beneficial substances and exploitation of energy potential of sewage sludge, while preventing harmful effects on human health and the environment

19. Agriculture;
20. Animal husbandry **including animal slaughterhouses and animal by-products industries;**
21. Food processing;
22. Aquaculture **and fishing;**
23. Treatment and disposal of hazardous wastes;
24. Treatment and disposal **of urban** wastewater;
25. Management, **including treatment and disposal,** of urban solid waste;
26. Disposal of sewage sludge;
27. The waste management industry;
28. Incineration of waste and management of its residues;
29. Works which cause physical alteration of the natural state of the coastline **including physical restructuring of rivers, coastline or seabed (water management);**
30. Transport;
- 31. Construction;**
- 32. Water collection and supply including desalination of seawater.**
- 33. Mixed industrial zones including at least one of the above sectors.**

Biennium 2022-2023: Update of Legal Framework, endorsed by COP 23, Portorož, Slovenia, 5-8 December 2023

Decision 26/6: **Regional Plan on Agriculture Management** in the Framework of Article 15 of the Land Based Sources and Activities Protocol

The objective is to reduce and further prevent pollution caused or induced by fertilizers, pesticides and waste generated from agricultural activities, as well as to promote aspects related to sustainable agriculture

Preventing nutrient pollution caused or induced from agricultural sources is key to protect human health and living resources, as well as aquatic ecosystems

Decision 26/7: **Regional Plan on Aquaculture Management** in the Framework of Article 15 of the Land Based Sources and Activities Protocol

The objective is to ensure that aquaculture sector activities are sustainable and are managed in a way such as to minimize pollution and potential negative ecological effects.

Aquaculture development and management should take into account the full range of ecosystem functions and services; reduce the likelihood of local biodiversity loss and pollution of the environment; and should not threaten their sustained delivery to society.

Biennium 2022-2023

Technical Guidelines related to Sector of Activities

- **UNEP/MED WG.563/11: Regional guideline on available treatment technologies** for urban wastewater and sewage sludge and decision support systems (DSS) for their selection;
- **UNEP/MED WG.563/12: Regional guideline on pre-treatment standards** and applicable BATs for industrial sectors eligible to discharge to urban wastewater collection systems;
- **UNEP/MED WG.563/13 : Guideline on Regional Standards for Discharge from Desalination Plants** and Decision Support Systems for Sustainable Desalination Technologies in the Mediterranean (Regional ELVs)

Biennium 2020-2021

Technical Guidelines related to Sector of Activities

- **UNEP/MED WG.509/35: Guideline on estimation techniques and applied methodologies** for non-point source releases from agriculture
- **UNEP/MED WG.509/36: Guideline on estimation techniques and applied methodologies** for point source releases from aquaculture

Next steps: to prepare a guidelines on implementation of the Regional Plans on Agriculture and Aquaculture.



UNITED
NATIONS

EP

UNEP/MED WG.509/35



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30 August 2021
Original: English

Meeting of the MED POL Focal Points

Teleconference, 27-28 May and 6-7 October 2021

Agenda item 13: Common methodologies on estimation techniques for the National Baseline Budget (NBB) of pollutants related to:

- a) Non-point source releases from agriculture
- b) Point source releases from aquaculture
- c) Non-point source releases from catchment runoffs

Guideline on estimation techniques and applied methodologies for non-point source releases from agriculture



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Guideline on estimation techniques and applied methodologies for point source releases from aquaculture

<https://www.unep.org/unepmap/meetings/se-arch-meeting-documents>

Summary of (chosen) pollutants originating from agriculture non-point (diffuse) sources

Sources		Process	Pollutants		
Sector	Subsector		air	water	land
Agriculture	Other from crop production non-point (diffuse) sources	Biomass burning	<i>CO₂, CH₄, N₂O, NH₃, NO_x, volatile organic compounds (VOCs)</i>	BOD, TC or COD, TSS, nutrients	BOD, TC or COD, TSS, nutrients
		Fertilizer application	Air emissions from the equipment including <i>NH₃, NO_x, CO₂</i>	N, P and potassium (K), sulfur (S), magnesium (Mg), calcium (Ca), zinc (Zn), copper (Cu)	N, P, K, S, Mg, Ca, Zn, Cu
		Pesticide application	<i>Air emissions</i> from the equipment	Various insecticides, herbicides, rodenticides, and fungicides.	Various insecticides, herbicides, rodenticides, and fungicides.
		Manure spreading and land application	<i>Air emissions</i> from the equipment and from the soil	N, P, minerals, emerging contaminants (veterinary antibiotics)	N, P, minerals, emerging contaminants (veterinary antibiotics)

From - Guideline on estimation techniques and applied methodologies for non-point source releases from agriculture (UNEP/MED WG.509/35)

Processes and Selected Pollutants (NBB)

Sector in accordance with: LBS, Annex I

NBB classifications – sub-sectors

The processes selected for estimation are:

- **Manure** spreading and land application of
 - **Cattle** – Dairy, Feed-lot & pasture cows for meat
 - **Poultry** – Laying hens, Broilers, Turkeys
 - **Sheep and Goats** – for milk & meat
- **Municipal Sewage Sludge land application**
- **Application of Municipal Treated Wastewater** (**Effluent water**) for irrigation.
- **Application of fertilizer**

Loading of pollutants can be a result of application of organic matter directly to the land or via irrigation water

Selected Pollutants:

- **Major Plant Nutrients:** Nitrogen, Phosphorus, Potassium,
- **Salts** - Sodium, Chloride, Boron

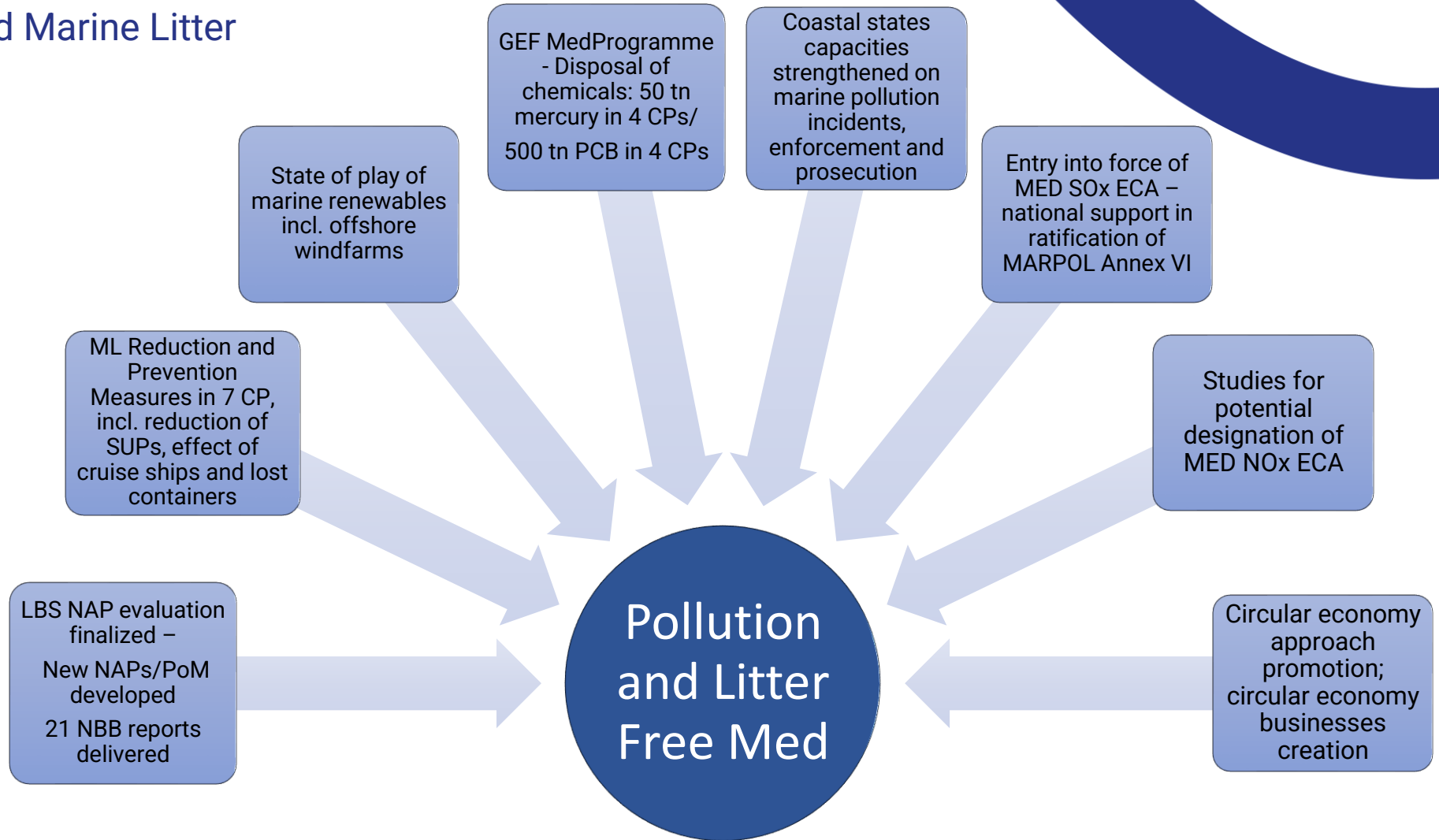
Programme of Work for 2024-2025 (Current Biennium)

Key Outcomes

Programme 1. Pollution and Marine Litter

Main objectives and key outcomes

- Integrated responses (Local, national, subregional and regional actions) for prevention and reduction of plastic pollution and marine litter, including emerging sources
- Synergies with regional/global instruments, incl. Global Treaty on Plastic Pollution
- Support for entry into force of MED SOx ECA – preparatory work on MED NOx ECA
- Updated NAPs/POM under LBS Protocol
- Transformational change embracing circular economy and contributing to implementation of the One Health Approach

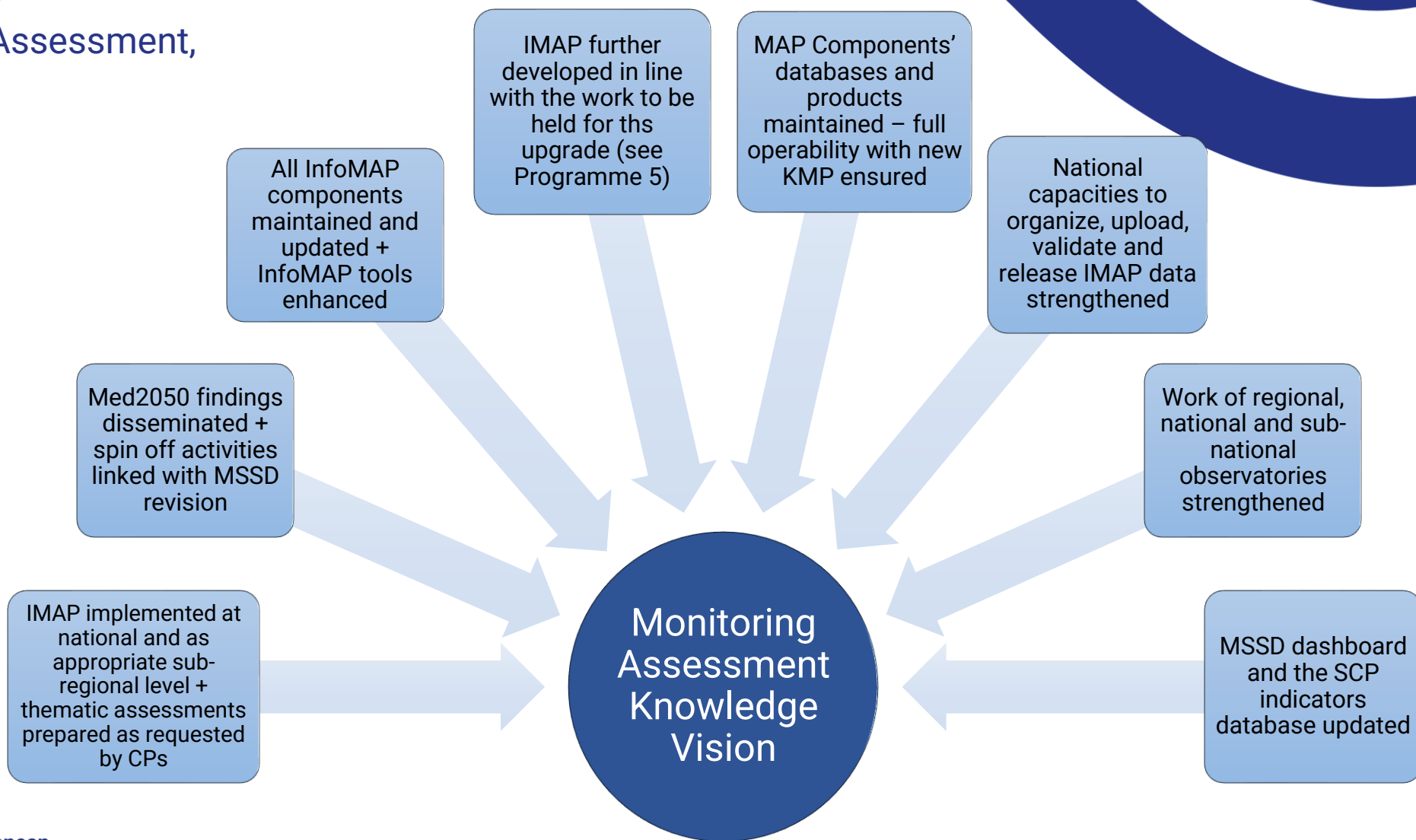


Key Outcomes

Programme 6. Monitoring, Assessment, Knowledge and Vision

Main objectives and key outcomes

- Enter into a new phase of updated IMAP for GES assessment, based on 2023 MED QSR outcomes
- Strengthen the Environment and Development Observatory in support of CPs decision-making.
- Strengthen the information system for IMAP including with the integration of assessment tools
- Deliver an integrated Knowledge Management Platform for the MAP system.



Preparation of National Action Plans 2025-2035

Outline of the Updated National Action Plans (2025-2035)

1) Preparation of a Benchmarking:

- National Baseline Budget tool (NBB)
- Marine Environment Monitoring Reports
- Updating the hotspot list according to a new methodology
- Review of the implementation of the 2015 NAP

National
Midterm
Assessment
report

2) Identification of Regional and National Measures:

- Present NAPs 2015-2025
- New 6 Regional Plans and
- MED QSR 2023 Summary (key findings and recommendations)

National Current
status report

3) Identifying Gaps:

- Business as usual scenario and alternative scenario

4) Prioritizing the Gaps

- Prioritizing will be based on degree of impact on the environment and society as well as the cost-benefit analysis. Based on the impact on various factors: public health, environmental status and pressures, economics, trans-boundary effects and climate change – extreme weather events.

Prioritizing the
GAPs

5) Detailed Implementation plans : (Sectoral Plans or EO Based Planning)

- Selection of the main topics for which a detailed gap closing plan will be built, the plan will include (i) “Operational Targets” and “Quantifiable Objectives”, (ii) outlined goals (iii) structured system for consistent updates, (iv) Key Performance Indicators (KPIs)

Implementation
Plans

6) Monitoring Programme

- Establishing Monitoring of Programme for identified in the NAPs/PoMs.
- Indicators will be selected to monitor the environmental situation and track the progress of the detailed plans.

7) Capacity Building

7) Drafting the NAP document :

- In close coordination with MEDPOL

8) Endorsement:

- At national level and at MAP and COP 24

NAP Drafting

Thank you

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**UN Environment/Mediterranean Action Plan
Mediterranean Pollution Assessment and Control Programme (MED POL)**

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