Agenda Item 5
Potential new/updated measures to achieve GES on pollution and litter

Regional Meeting on NAPs Implementation – Lessons learned and the way forward

Marseille, France, 17-18 October 2016

UNEP
MAP
United Nations Environment Programme
Mediterranean Action Plan (UNEP/MAP)
Barcelona Convention

40 Years TOGETHER FOR A SUSTAINABLE MEDITERRANEAN

I. Regional Gap Analysis of PoM related to pollution and litter

❑ Rationale

- A comprehensive legal framework and set of measures exist at regional level addressing the main pressures on marine and coastal environment related to marine pollution and litter :

  → Pollution related Protocols
  → SAP/MED
  → Regional Plans in the framework of LBS art.15
  → Offshore Action Plan
  → Regional Strategy on Pollution from ships

- However pressures continue to occur and there is a gap between the current situation and the Good Environmental Status

❑ Objective of the study

To identify the areas where existing regional measures are not sufficient or are not efficiently implemented to tackle the main pressures and achieve GES in order to set the basis for identification of potential new/updated measures.

Analysis undertaken in the framework of the EU funded ActionMed Project Activity 3.

❑ Methodology

For the measures related to pollution the study was constructed according to the EcAp Ecological Objectives 5 (eutrophication), 9 (contaminants) and 10 (marine litter), corresponding to MSFD descriptors 5,8,9 and 10. The same methodology was used for each Ecological Objective:

➔Methodological steps

- Definition of main pressures on the Mediterranean sea and coast
- Assessment of their sources and impacts
- Identification of main measures adopted at regional level to combat the identified pressures
- Review of main gaps, based on existing regional analyses and assessments → environmental pressures that continue to occur despite the existing measures
- Assessment of existing measures
  - Are there measures addressing specific pressures?
  - Are those measures fully implemented?
  - Is there a gap on measures that has to be filled?
- Initial proposals
  - Better implementation of existing measures
  - Adoption of new/updates measures, with identification of some potential new measures for further consideration

❑ Main Findings on gaps per EO

❖ Eutrophication (EO5)

Sectors	Gaps
WWT	• Many major cities without WWTP → need for better implementation of existing measure • Big part of ww under primary treatment and low percentage of tertiary treatment → need for increase • Low levels of wastewater reuse → need for increase • Overcapacity and malfunction in certain WWTP → need for revised efficiency standards and assessment limits • Need for more research and upgraded technologies for improvement of treatment systems • Need for better integration of future projections (population increase and activities development) in planning

Sectors	Gaps
Agriculture	Not efficiently regulated at regional level → need for stricter guidelines and management standards or even a Regional Plan on Agriculture to support: better regulation on fertilizers use, optimized nutrient use, sustainable agriculture practices, HNV and organic farming), better management of manure, EFAs system, water saving techniques etc.
Aquaculture	Sector not regulated at regional level → need for stricter guidelines and management standards or even a Regional Plan on Agriculture to support: better planning for sustainable aquaculture activities (i.e. requirement for SEA for national aquaculture plans), minimization of environmental impacts, nutrient balanced aquaculture etc.
Other sources	Adoption of measures to prevent nutrient inputs from other sources, including reduction of atmospheric depositions, better control of runoffs, introduction of wetlands as nutrient sinks (nature-based solutions) etc.

❖ Contaminants

Sources	Gaps
Waste management	• Lack of separate collection • Inadequate management of solid wastes in many cases (big percentage of collected waste is disposed in open dumps) → need for better implementation and enforcement of existing measures. Especially closure and remediation of illegal dump sites. • Insufficient accounting and cost-recovery mechanisms → need for measures providing for full cost recovery for solid waste management • Municipalities' role and capacity in waste management needs to be enhanced • Need for development and application of new waste management technologies
Oil discharges	Limited knowledge → need for enhanced data collection, through use of new technologies

Sources	Gaps
Dumping	Amended Dumping Protocol not yet in force → support for enhanced ratifications Need to fully align the Protocol's Annexes and Guidelines with international legislation
Offshore Activities	Need for full implementation of the Offshore Action Plan, adopted by COP19 in 2016
Pollution from ships	Need for full implementation of the Regional Strategy for Prevention of and Response to Marine Pollution from Ships adopted by COP19 in 2016 Need for development of harmonized legal frameworks at national level for the implementation of MARPOL
Atmospheric deposition	Lack of regional measures to combat atmospheric deposition of contaminants
Other sources	There are sectors contributing to marine pollution that are not adequately regulated, such as agriculture, aquaculture, and tanneries → the development of technical guidelines or regional plans should be considered

Overall issues	Gaps
Priority contaminants	• Need for stronger implementation and enforcement of existing measures for prevention/reduction of POPs and application of BAT and BEP for ESM • Need to review and update the list of priority contaminants, to take into account “emerging pollutants” (pharmaceuticals, nano-materials etc.)
Reporting	• Reporting should be made annually • Need for Regional PRTR • Uncollected wastewater is currently not fully accounted for → need for updated reporting on this issue
Depollution	• New measures should provide for restoration of degraded sites (see EU biodiversity Strategy – restoration target for 15% of degraded ecosystems) • More information is required on depollution costs, in the framework of a wider ecosystem services assessment system

❖ Marine Litter

Key pressures	Gaps
Plastics	• Existing measures set out in the MLRP need to be fully implemented (reduction of plastic bag consumption, plastic bag taxes, deposit-return-restoration system for polystyrene fishing boxes etc.) • New measures should be considered to address specific issues (including requirements for thickness of plastic bags, use of bioplastics where feasible, adoption of recycling targets for plastics, integration of SCP with use of more easily reusable material, minimum packaging weight requirement, etc.)
Microplastics	• Not addressed in the MLRP → need for specific new measures (common definition, common sampling methodology, prevention and reduction measures, differentiated for primary and secondary microplastics etc.) • Nanoplastics: new measures are also required to address the issue of nanoplastics

Key pressures	Gaps
Microplastics (continue)	• Pre-production plastics (nurdles): new measures are required to address this type of microplastics • Microbeads in PCCPs: Three Mediterranean countries are in the top 5 European countries in cosmetics sales → new measures should be adopted aiming at replacing microbeads with environmentally friendly alternatives
Cigarette butts	The most commonly found item on Mediterranean beaches →however not specifically addressed in the MLRP → need for new measures to cover this marine liter type (e.g. reduction targets, bans in beaches, adequate facilities, signs, awareness raising, sustainable consumption etc.)
E-waste	Not covered by the MLRP → need for new measures to address this marine litter type
Medical waste	Not covered by the MLRP → need for new measures to address this marine litter type

Key pressures	Gaps
ALDFG	Existing measures in MLRP → must be fully implemented. Need for enhanced awareness and training of fishermen, more fishing for litter projects, development of technologies to minimize impacts and facilitate identification and removal of gear, incentives for reuse/recycling of collected nets etc.
Ship wastes	• Better implementation of existing measures is required (with regards to port reception facilities, No-Special-Fee system, and MARPOL Annex V provisions). Focus on port reception facilities in small harbors and marinas and enforcement of waste discharges prohibition. • Gaps in the legal framework as identified by EC should be also considered, including: limitation of existing exemptions, establishment of harmonized port fee systems, actions at port level to reduce waste generation at ships, information requirements to facilitate detection of potential offenders, improvement of inspection, better enforcement and stricter sanctions

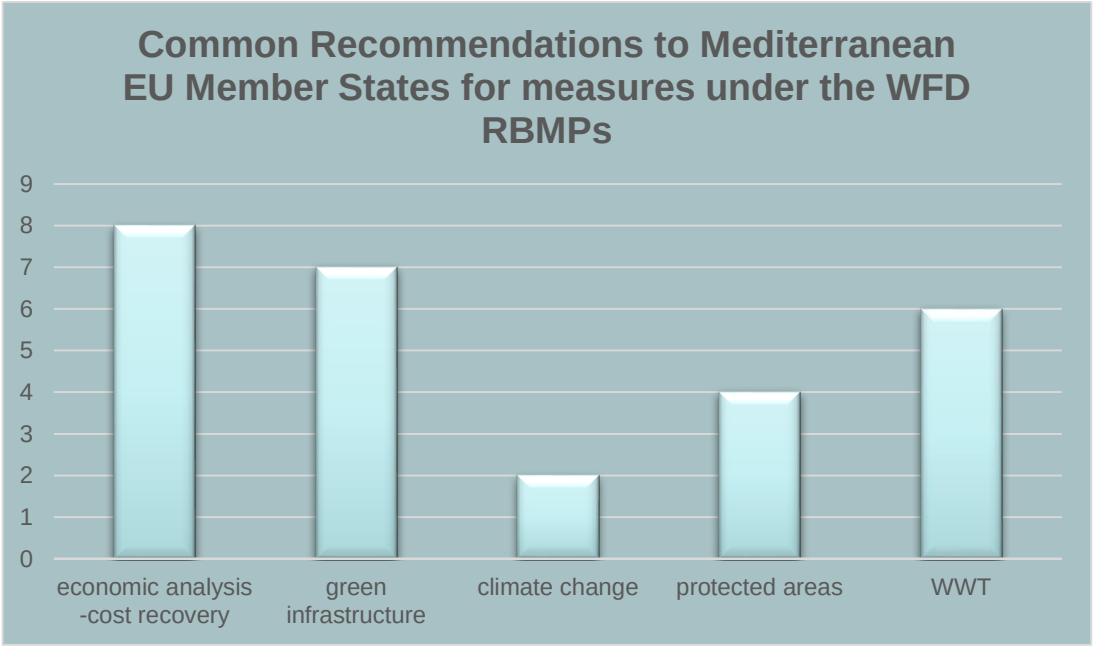
Overall issues	Gaps
Knowledge	Data and knowledge improvement are required especially on microplastics and nanoplastics, ALDFG, sub-lethal effects, secondary pollution, transport dynamics and accumulation, degradation and leachability, socio-economic impacts etc.
Polluter Pays Principle	Not fully implemented. Better integration of PPP in marine litter policies is needed through i.e. • enhancement of EPR, • internalization of depollution costs, • integration of ML into environmental responsibility reports, • dissuasive sanctions and penalties for littering
Circular Economy	Many existing provisions are in line with this concept. An additional regional measure could be the development of a Circular Economy Strategy to accommodate the provisions under the SCP Action Plan, in order to support eco-design and smart production, increased reusability and recyclability of products, enhanced separation at source, promotion of turn-waste-into-resources approach etc.

Overall issues	Gaps
Removal	Stronger implementation of existing measures, including targeted clean-up activities, Fishing for Litter etc.
Categorization	More specific categories should be used in order to come up with more specific targets and measures: • recreational litter, • litter from smoking related activities, • shipping litter, • fishing litter, • sewage-related debris, • tourist litter, • sanitary and medical litter
Socioeconomic impacts	Impacts on economic activities and human health need to be better addressed Information on depollution (or more generally degradation) costs are required, under an ecosystem services assessment system
Economic instruments	The most cost-effective are the plastic bag taxes and the Direct Payment Awards

❑ Links with WFD

Commission SWD Report on the progress in implementation of the WFD PoM

Common recommendations for Mediterranean countries:



II Proposals for new/updated measures

Proposed approach to preparing/updating Regional PoM

1. Potential new/ updated measures should address:
   a. gaps in the legal and policy framework of Barcelona Convention
   b. implementation gaps (existing measures)

2. Cover the gaps caused by:
   a. knowledge/ data gaps
   b. management and capacity gaps

3. Start with a rough framework and consult, refine, specify, take into account new information

4. Focus on priority pressures, sources and impacts
5. Different types of measures
6. Measures implemented on national level with potential for coordination/ joint implementation

Proposed selection criteria:

1. Address deviation from GES target OR trends that are not improving or deteriorating at regional and/ or sub-regional level
2. Significance of the driver (source)/ pressure/ impact
3. Social, economic and environmental impacts of measures
4. Potential of measure to bridge the gap between current status and GES
5. Potential for coordinated and/ or joint implementation regionally/ sub-regionally
6. Multiple effects
7. Relevance for other policies
8. Technical feasibility
9. Cost-effectiveness and/ or cost-benefit analysis

Proposed process (reviewing, preparing and deciding on the new/ updated regional measures):

1. Discussion at the present NAP meeting
   - provide overall guidance on proposed criteria

2. Further work by the Secretariat
   - more elaborated proposal with justification for the next MEDPOL FP meeting

3. Submit outcome of the MEDPOL FP meeting to MAP FP through the ECAP Coordination Group
   - as appropriate, mandate the Secretariat to undertake feasibility studies during 2018/2019 biennium

4. Based on feasibility studies and recommendations of MEDPOL FP, ECAP CG, MAPF FP – COP 21 may mandate elaboration of new/ updated regional measures for COP 22
   - taking into account evaluation of the implementation of existing measures/ Regional Plans

Categories of measures provided in the indicative list:

1. Construction and upgrades/ improvements of wastewater treatment systems (for urban and industrial waste water)
2. Measures to reduce pollution from agriculture
3. Measures to reduce pollution from aquaculture
4. Remediation of contaminated sites
5. Measures to ensure elimination of key contaminants
6. Measures to prevent/ reduce pollution from storm water/ runoff from urban areas and infrastructure
7. Measures to improve sold waste management
8. Measures to address marine litter
9. Measures providing economic incentives to those using marine environment to reduce pollution and litter
10. Research, improvement of knowledge base, monitoring and assessments

Example of indicative actions/areas to be addressed in order to fill knowledge and data gaps

Research, knowledge, monitoring and assessments	Relevant EOs
• Monitoring programmes, harmonised indicators; sub-regional eutrophication modelling tools, trans-boundary cooperation • Updated list of priority contaminants to take into account 'emerging pollutants' such as pharmaceuticals, nano-materials etc. • Establishment of a regional PRTR (Pollution Release and Transfer Register) with continuous, regular and reliable reporting • Develop research, monitoring and assessment programmes for marine litter • Valuation of ecosystem services , assessment of cost of degradation of marine environment • Strengthening of capacities for the assessment of socio-economic impacts of marine litter, primarily for tourism, fishing and aquaculture	EO5, EO9, EO10

III. Socio-economic assessment of selected potential measures - introduction

A desk study conducted by Plan Bleu as part of the EU-funded ActionMed Project

<u>On the regional level:</u> Socio-economic assessment of 4 selected potential regional measures

<u>On the national level:</u> Guidance for socio-economic assessment of measures at the national level
(based on 3 European PoM socio-economic analyses and international best practice)

Socio-economic assessment of selected potential measures – Selecting 4 regional measures

Cost-effectiveness, cost-benefit and multi-criteria analysis of 4 regional measures :

- Introduction of a plastic bag tax
- No-special-fee as a cost recovery mechanism for port reception facilities for ship-generated waste
- Fishing for litter programmes
- Extension of the current surface of marine protected areas

Selection criteria for choosing the 4 measures:

- Provide examples of socio-economic analysis of measures at the Mediterranean level
- Illustrate the applicability and type of results achievable through literature-based CEA, CBA and MCA analysis of measures
- Address different types of measures (economic instruments, technical measures, communication measures, command-and-control or management measures) and descriptors
- Be coherent with existing programmes of measures and the UNEP-MAP programme of work

The analyses also provide useful information on alternative measures potentially leading to the same effects as the selected measures.

Socio-economic assessment of selected potential measures – Lessons learned

- Measures generally come with **trade-offs** between ecological objectives and economic activities and public costs as well as with varying **distributional effects** of costs and benefits
- Available data allowed for **quantitative CEA** of most measures and mostly **qualitative CBA** with some quantified elements. MCA which includes quantified data appeared to be the most feasible analysis technique

Towards a realistic approach to socio-economic assessment of measures:

- None of the studied national PoM (France, Spain, Germany) included full-scale CEA/CBA
- Realizing comprehensive socio-economic analysis of all measures including indirect impacts and ecosystem services assessment = time and resource consuming and dependent on data availability
  → A more pragmatic approach is needed to **provide useful inputs for decision making**: Well-designed **MCA including elements from CEA/CBA** appears to be a realistic compromise
- **Regional coordination** in the establishment and implementation of national PoM = needed:
  - To mitigate possible adverse **transboundary effects** or, on the contrary, maximize transboundary benefits
  - To **streamline efforts** to conduct socio-economic assessment of measures

→ Regional measures would be best coordinated and most efficiently designed in form of a **regional PoM** which ensures coherence of measures and facilitates transposing the measures to the national level