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First Regional Meeting of Experts on the Six Pollution Reduction Regional Plans

Athens, Greece, 20-21 November 2018

**Agenda item 3: Development of Regional Plans under Article 15 of the Land-Based Sources Protocol of the Barcelona Convention**

**Background Document for the Six Regional Plans**

For environmental and economic reasons, this document is printed in a limited number. Delegates are kindly requested to bring their copies to meetings and not to request additional copies.

## **List of Abbreviations/Acronyms**

<b>BAT</b>	Best Available Technique
<b>BEP</b>	Best Environmental Practice
<b>BOD5</b>	Biochemical Oxygen Demand
<b>COP</b>	Conference of the Parties
<b>DDT</b>	Dichlorodiphenyltrichloroethane
<b>ELV</b>	Emission Limit Value
<b>EQS</b>	Environmental Quality Standards
<b>GES</b>	Good Environmental Status
<b>GEF</b>	Global Environment Facility
<b>LBS Protocol</b>	Land-Based Sources Protocol
<b>MAP</b>	Mediterranean Action Plan
<b>MED POL</b>	Programme for the Assessment and Control of Marine Pollution in the Mediterranean Sea
<b>NAPs</b>	National Action Plans
<b>PCBs</b>	Polychlorinated biphenyls
<b>PoM</b>	Programmes of Measures
<b>PoW</b>	Programme of Work
<b>SCP</b>	Sustainable Consumption and Production
<b>WWTP</b>	Wastewater Treatment Plant

## Introduction

1. The Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (LBS Protocol) provides for the Parties to take all appropriate measures to prevent, abate, combat and eliminate to the fullest possible extent pollution of the Mediterranean Sea caused by discharges from rivers, coastal establishments and outfalls or emanating from any other land based sources and activities within their territories, giving priority to the phasing out of inputs of substances that are toxic, persistent and liable to bioaccumulate. Annex I to the Protocol defines the categories of these substances and their characteristics as well as key sectors.

2. The Protocol contains two main provisions addressing the Regional Plans and measures, specifically the “General Obligations” contained in Article 5 and Article 15. The latter provides for the adoption by the Contracting Parties of “*short-term and medium-term regional action plans and programmes containing measures and timetables for their implementation provided for in article 5 of this Protocol*”. This article further defines the process for the adoption of these legally-binding plans and programmes.

3. Accordingly, the Protocol provides for general obligations for taking pollution prevention/reduction/ elimination measures, defining a large spectrum of substances and sectors, while allowing at a later stage for the definition of specific legally-binding measures through the adoption of Regional Plans. The level of flexibility attributed to the Parties through Article 15 of the Protocol allows *de facto* the elaboration of measures targeting specific contaminants and sectors on a priority basis, using scientific evidence, and in line with the precautionary principle while also benefiting from technological developments and knowledge.

4. The preparation of action plans, programmes and measures is guided and framed by Annex I to the Protocol, which as mentioned above, provides for priority elements to be taken into account: (a) sectors of activity; (b) characteristics of substances; and (c) categories of substances.

5. Since 2009, the Contracting Parties have adopted ten legally-binding Regional Plans (tabulated below). The legal character of these plans is grounded on: (i) the wording of Article 15, Paragraph 3 of the LBS Protocol; (ii) the instrument used for their adoption (COP Decision); and (iii) the language and obligations of the Regional Plans.

<b>COP 16 (2009)</b>	<b>Decision IG.19/7</b> • Regional Plan on the reduction of BOD5 from urban waste water
	<b>Decision IG.19/8</b> • Regional Plan on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex and Toxaphene
	<b>Decision IG.19/9</b> • Regional Plan on the phasing out of DDT
<b>COP 17 (2011)</b>	<b>Decision IG.20/8.1</b> • Regional Plan on the reduction of inputs of Mercury
	<b>Decision IG.20/8.2</b> • Regional Plan on the reduction of BOD5 in the food sector

<b>COP 17</b> <i>(continued)</i>	<b>Decision IG.20/8.3</b> <ul style="list-style-type: none"> <li>• Regional Plan on the phasing out of Hexabromodiphenyl ether, Heptabromodiphenyl ether, Tetrabromodiphenyl ether and Pentabromodiphenyl ether</li> <li>• Regional Plan on the phasing out of Lindane and Endosulfan</li> <li>• Regional Plan on the phasing out of Perfluorooctane sulfonyl acid, its salts and Perfluorooctane sulfonyl fluoride</li> <li>• Regional Plan on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, Pentachlorobenzene</li> </ul>
<b>COP 18</b> <b>(2013)</b>	<b>Decision IG.21/7</b> <ul style="list-style-type: none"> <li>• Regional Plan on Marine Litter Management in the Mediterranean</li> </ul>

6. Concurrently, and since 2008, the MAP Barcelona Convention system committed to implement the ecosystem approach with the overall objective of achieving and/or maintaining Good Environmental Status (GES). In this context, the Secretariat assessed the Regional Plans and identified key aspects for their further elaboration into possibly new instruments to ensure the achievement and maintaining of GES. This analysis highlighted the existing measures which were not sufficient and/ or not adequately implemented to achieve and maintain GES, identifying at the same time areas and new measures required to fulfill the GES objectives.

7. On this basis, a “list of potential new/ updated measures” has been formulated and screened against a set of criteria to identify the most relevant measures in terms of their *effectiveness; significance of the driver/ expected impact; relevance for other policies; and potential for coordinated/ joint implementation.*

8. The MED POL Focal Points Meeting, held in Rome, Italy in May 2017, reviewed the “list of potential new/ updated measures” and approved a priority clustering of the listed measures under six potential categories of Regional Plans in the framework of Article 15 of the LBS Protocol, namely:

- Municipal Wastewater Treatment;
- Sewage Sludge Management;
- Agriculture Nutrients Management;
- Aquaculture Nutrients Management;
- Urban Storm Water Management; and
- Marine Litter.

9. The MAP Programme of Work 2018-2019 (Decision IG.23/14) adopted by the Contracting Parties in their 20<sup>th</sup> Ordinary Meeting (COP 20, Tirana, Albania, December 2017), mandated the Secretariat to develop a process and propose to the MED POL Focal Points Meeting in 2019 the main elements of the six Regional Plans (PoW Activity 2.2.2.1).

10. To deliver this mandate, the Secretariat elaborated a methodology addressing both the technical aspects and consultation process needed to identify the main elements of the six Regional Plans. The methodology included assessment of the measures provided for in the 10 existing Regional Plans against the list of measures identified in the 2017 Regional Measures Analysis report<sup>1</sup> and in the 2017 MED POL Focal Points Meeting Report.<sup>2</sup> Assessment also considered best practices and lessons learnt from regional measures negotiated and implemented in the framework of other regional seas; the updated National Baseline Budget data; and results and lessons learnt from National Action Plans (NAPs).

<sup>1</sup> UNEP(DEPI)/MED WG.444/3

<sup>2</sup> UNEP(DEPI)/MED WG.439/20

11. With the view to facilitating the provision of substantive inputs of the main elements of the six Regional Plans, the Secretariat developed the Table included in the Annex of this document which identifies the linkages between the list of clustered potential new/ updated measures and provisions under the existing Regional Plans; and formulates questions/ indications per each measure for further analysis.

**Existing Measures and Standards adopted under the MAP Barcelona Convention Framework and Potential new measures to achieve GES**

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
1. Municipal WWTP	1.1. Strengthen implementation of Regional Plans' provision on sewage and WWT systems; strengthening of capacities and provision of support for construction, expansion and upgrading of sewage/ WWT systems	E	<p><b>Decision IG.19/7 RP on reduction of BOD5 from Urban Wastewater Treatment Plants</b></p> <p><b>Art.II.1</b> The Parties shall ensure that all agglomerations (<i>area where the population of more than 2.000 inhabitants and/or economic activities are sufficiently concentrated for urban waste water to be collected and conducted to an urban waste water treatment plant or to a final discharge point</i>) collect and treat their urban waste waters before discharging them into the environment. Collecting systems should satisfy the requirements set forth in Appendix I.</p> <p><b>Art.II.2.</b> The Parties shall adopt National BOD5 ELVs for urban waste waters after treatment (i.e. maximum allowable concentration of BOD5 to be finally discharged from WWTP to the receiving water environment).</p> <p><b>Art.II.3.</b> The Parties shall ensure that characteristics of collected and treated urban waste waters shall, before discharge in the environment, be in accordance to provisions on ELVs described in the following table.</p> <ul style="list-style-type: none"> <li>- LBS Protocol Area → ≤50 mg /l O2</li> <li>- LBS Protocol Area – marine outfalls → ≤200 mg /l O2)</li> </ul> <p>Appendix I Collecting systems Appendix II Guidelines on Monitoring and Enforcement Appendix III Guidelines and criteria to implement Article V</p>	<p>This proposed measure is <i>de facto</i> a suggestion to expand the existing Regional Plan and above all to enhance its implementation and enforcement.</p> <p>There is a need to assess the status of its implementation. For the European countries there is sufficient information. For the other Mediterranean countries, there is good information in the updated NAPs. It is expected to populate at least three H2020 indicators with data coming from the wastewater sector.</p> <p><b>Questions:</b></p> <ol style="list-style-type: none"> <li>1) Is there sufficient baseline information across the region with regards to WWTP, their standards of operation, level of treatment and enforcement? What would be the sources of information?</li> <li>2) Which are the main challenges and needs for construction, expansion and upgrading of sewage/ WWTP systems as well as their operation?</li> <li>3) What are the best practices/ new technologies to be considered, including non-conventional technologies?</li> </ol> <p><b>If the option to expand this Regional Plan would prevail, Additional issues to be considered</b></p> <ol style="list-style-type: none"> <li>4) Secondary/tertiary treatment.</li> <li>5) Promoting reclamation of nutrients.</li> <li>6) Reuse of wastewater in agriculture.</li> <li>7) Promoting renewable energy techniques.</li> <li>8) Stricter quality standards: water reuse, heavy metals, micro plastic, storm water, BOD, nutrients, others?</li> <li>9) Move from ELV approach to EQS/GES approach? Or opting for a combined approach?</li> <li>10) Available best practices on cost-effective and or low-cost technologies.</li> </ol>
	1.2. Develop efficiency standards for WWTPs;	E+N	<p><b>Decision IG.19/7 RP on reduction of BOD5 from Urban Wastewater Treatment Plants</b></p>	<p>This section liaises naturally with the previous measure related to the WWTP.</p>

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
	support strengthened control of their operations		<p><b>Art.II.4.</b> The Parties shall ensure that their competent authorities or appropriate bodies shall monitor discharges from municipal WWTP to verify compliance with the requirements of the above table taking into account the guidelines included in Appendix II.</p> <p><b>Art.II.5.</b> The Parties should take the necessary measures to enforce these measures in accordance with their national regulations.</p> <p><b>Decision IG.19/7 RP on reduction of BOD5 from Urban Wastewater Treatment Plants</b></p> <p><b>Art. IV.2</b> The Parties shall ensure that their competent authorities or appropriate bodies shall monitor related discharges into water to verify compliance with the requirements of the above table taking into account the guidelines included in Appendix I (<i>providing information on the design and construction of collecting systems</i>).</p> <p><b>Decision IG.20/8.2 RP on reduction of BOD5 from Food Sector</b></p> <p><b>Art IV.1</b> Industrial Food Plants outlined in Appendix I which discharge more than 4 000 pe into water bodies shall meet requirements (24-hour values) tabulated.</p> <p>In case the food sector installation discharges into the sewerage system, the competent authorities shall establish ELV and an authorization compatible with the operation and the emission discharge values of the urban waste water treatment plant.</p>	<p><b>Questions:</b></p> <p>11) Should a regional approach for setting WWTP efficiency be adopted?</p> <p>12) In case yes to the above, what concrete standards can be considered?</p> <p>13) How is enforcement and control ensured?</p> <p>14) Should we consider other sectors than the food sector's wastewater?</p> <p>15) Should we consider expanding the list of branches and industries presented in Appendix I (IG.20/8.2)?</p>
	1.3. Setting of targets for secondary treatment; promotion of tertiary treatment (with targets) and	N	The RP on BOD5 from UWW considers only primary and secondary treatment. No mention of tertiary treatment, nor of reuse of wastewater.	<p><b>Questions:</b></p> <p>16) Is setting of region-wide targets for secondary and tertiary treatment feasible at this stage?</p> <p>17) If yes, how quantifiable targets can be defined?</p>

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
	of uptake of new improved WWT technologies; setting of targets for reuse of treated wastewater			18) How to ensure links with the Marine Litter Regional Plan measures (riverine litter)?
	1.4. Adopt an updated list of priority contaminants taking into account ‘emerging pollutants’ such as pharmaceuticals, nano-materials etc.	N	<p><b>LBS Protocol</b>  <b>Annex I- C. Categories of substances</b></p> <ol style="list-style-type: none"> <li>1. Organohalogen compounds and substances which may form such compounds in the marine environment. Priority will be given to Aldrin, Chlordane, DDT, Dieldrin, Dioxins and Furans, Endrin, Heptachlor, Hexachlorobenzene, Mirex, PCBs and Toxaphene;</li> <li>2. Organophosphorus compounds and substances which may form such compounds in the marine environment;</li> <li>3. Organotin compounds and substances which may form such compounds in the marine environment;</li> <li>4. Polycyclic aromatic hydrocarbons;</li> <li>5. Heavy metals and their compounds;</li> <li>6. Used lubricating oils;</li> <li>7. Radioactive substances, including their wastes, when their discharges do not comply with the principles of radiation protection as defined by the competent international organizations, taking into account the protection of the marine environment;</li> <li>8. Biocides and their derivatives;</li> <li>9. Pathogenic microorganisms;</li> <li>10. Crude oils and hydrocarbons of petroleum origin;</li> <li>11. Cyanides and fluorides;</li> <li>12. Non-biodegradable detergents and other nonbiodegradable surface-active substances;</li> <li>13. Compounds of nitrogen and phosphorus and other substances which may cause eutrophication;</li> <li>14. Litter (any persistent manufactured or processed solid material which is discarded, disposed of, or abandoned in the marine and coastal environment);</li> <li>15. Thermal discharges;</li> </ol>	<p>Although this Measure is included in the WWTP cluster it deserves to be addressed on its own.</p> <p>This issue was addressed during the last 10 years on priority basis by the MED POL Focal points. It is an evolving process and difficult to conclude.</p> <p>A more specific list was developed in 2011, updated in 2017 for monitoring and action purposes, inspired by the list of substances provided for in Annex I of the LBS Protocol.</p> <p>The definition of such a list should guide the elaboration of the Regional Plans for specific substances and sectors. The Regional Plans on mercury and on the POPs are excellent pioneering examples at regional level. The relevant actions at global levels under the Minamata and Stockholm Conventions came after the adoption of the respective Mediterranean Regional Plans.</p> <p><b>Questions:</b></p> <ol style="list-style-type: none"> <li>19) Should additional Regional Plans addressing specific substances be developed <ul style="list-style-type: none"> <li>○ What would be the best approach for their formulation and selection?</li> <li>○ One substance across relevant sectors?</li> <li>○ ELV or EQS/GES based per each substance and sector? or a combined approach?</li> </ul> </li> <li>20) Please list at least 10 substances which require regional measures and standards setting in the Mediterranean?</li> <li>21) Please list at least 10 sectors the management of which requires common measures/guidelines to eliminate toxic substances in the Mediterranean</li> <li>22) What about reporting on measures implementation and effectiveness?</li> </ol>



Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
			16. Acid or alkaline compounds which may impair the quality of water; 17. Non-toxic substances that have an adverse effect on the oxygen content of the marine environment; 18. Non-toxic substances that may interfere with any legitimate use of the sea; 19. Non-toxic substances that may have adverse effects on the physical or chemical characteristics of seawater.	
	1.5. Promote upgrading of WWTPs to reduce the inflows of plastics into the marine environment	E	<b>Decision IG.21/7 Regional Plan on Marine Litter Management in the Mediterranean (MLRP)</b>  <b>Art.9.4</b> By the year 2020 take necessary measures to establish as appropriate adequate urban sewer, wastewater treatment plants, and waste management systems to prevent run-off and riverine inputs of litter.	This measure is already addressed under the section 1.1.
2. Sewage Sludge Management	2.1. Strengthen the existing and development of new measures to improve region-wide performance with sewage sludge management	E+N	Dumping of sludge at sea is prohibited in the Mediterranean.  However, there are no specific provisions related to sludge management in the existing RPs.	The management of sludge deriving from WWTP operations has become an emerging issue in the Mediterranean and highlighted as a key priority in almost all updated NAPs developed by the Contracting Parties.  <b>Questions:</b> <ol style="list-style-type: none"> <li>1) Should the topic of sludge management be considered as an annex to the updated/ new regional plan of municipal wastewater treatment or a separate regional plan?</li> <li>2) What are the pollution reduction/ prevention measures that should be advocated in order to reduce the negative environmental impacts of sludge? These may include:               <ul style="list-style-type: none"> <li>○ Reducing inflows of toxic chemicals into sewage system</li> <li>○ Controlling landfilling as a method for sludge disposal</li> <li>○ Promoting whole chain for sludge treatment from dewatering to energy generation</li> </ul> </li> <li>3) What would be the best approach to address sludge management? Guidelines versus Measures?</li> </ol>

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
				4) What guideline documents should be prepared? 5) Please propose a list of possible standards for sludge disposal and to promote sludge reuse.
3.Agriculture [Nutrients] Management	3.1. Develop technical guidelines and management standards to tackle inputs of nutrients and contaminants from agriculture and to promote sustainable farming practices	N	<p><b>LBS Protocol Annex I</b>                      Agriculture is included in the list of sectors of activity (Part A) which are <i>to be primarily considered when setting priorities for the preparation of action plans, programmes and measures for the elimination of the pollution from land-based sources and activities.</i></p> <p>Regarding contaminants inputs from agriculture, the elimination/phasing out of some key POP pesticides/insecticides has been regulated by relevant Regional Plans:</p> <ul style="list-style-type: none"> <li>- Phasing out of DDT: <b>Decision IG. 19/9</b> providing for implementation of measures by 2012.</li> <li>- Phasing out of aldrin, chlordane, dieldrin, endrin, heptachlor, mirex, toxaphene: <b>Decision. IG.19/8</b> providing for implementation of measures by 2012.</li> <li>- Phasing out of lindane and endosulfan: <b>Decision IG. 20/8.3</b> providing for implementation of measures by 2013.</li> </ul>	<p>Both the HELCOM<sup>3</sup> and OSPAR<sup>4</sup> provide measures to address pollution from agriculture, including on the use of fertilizers and pesticides.</p> <p><b>Questions:</b></p> <ol style="list-style-type: none"> <li>1) What would be the best approach? Develop Guidelines on Agriculture best practices versus measures contained in a Regional Plan.</li> <li>2) Is there sufficient information on the impacts of agriculture in the Mediterranean? Is there any need to undertake an in-depth assessment?</li> <li>3) What best practices to consider and promote including minimization/ prevention of agricultural runoff; fertilizers management; pesticides management; manure management.</li> </ol>

<sup>3</sup> Helsinki Convention, Annex III, Part II Prevention of Pollution from Agriculture; HELCOM RECOMMENDATION 24/3: measures aimed at the reduction of emissions and discharges from agriculture; HELCOM RECOMMENDATION 19/6: amendments to Annex iii of the Helsinki Convention concerning regulations on prevention of pollution from agriculture (26 March 1998); HELCOM RECOMMENDATION 31E/3: cadmium in fertilizers

<sup>4</sup> PARCOM RECOMMENDATION 94/7 on the Elaboration of National Action Plans and Best Environmental Practice (BEP) for the Reduction of Inputs to the Environment of Pesticides from Agricultural Use; OSPAR RECOMMENDATION 2000/1 on Best Environmental Practice (BEP) for the Reduction of Inputs of Agricultural Pesticides to the Environment through the Use of Integrated Crop Management Techniques; Guideline 6: Quantification and Reporting of Nitrogen and Phosphorus Losses from Diffuse Anthropogenic Sources, and natural Background Losses (Reference Number: 2007-8)

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
4. Aquaculture [Nutrients] Management	4.1. Develop technical guidelines and management standards to tackle inputs of nutrients and contaminants from aquaculture	N	<p><b>LBS Protocol Annex I</b></p> <p>Aquaculture is included in the list of sectors of activity (Part A) which are <i>to be primarily considered when setting priorities for the preparation of action plans, programmes and measures for the elimination of the pollution from land-based sources and activities.</i></p> <p>However, there are no relevant provisions in the existing Regional Plans.</p>	<p>Both the HELCOM<sup>5</sup> and OSPAR<sup>6</sup> as well as relevant FAO<sup>7</sup> and GFCM<sup>8</sup> Decisions and Guidelines provide measures to address pollution from aquaculture.</p> <p><b>Questions:</b></p> <ol style="list-style-type: none"> <li>1) What would be the best approach? Develop Guidelines on Agriculture best practices versus measures contained in a Regional Plan.</li> <li>2) In case of Regional Plan, should it be combined with the Regional Plan for nutrients from Agriculture?</li> <li>3) Is there sufficient information on the impacts of aquaculture in the Mediterranean? Is there any need to undertake an in-depth assessment?</li> <li>4) What best practices to consider and promote including measures for minimization of impacts from onshore hatcheries and offshore aquaculture.</li> </ol>
5. Urban Storm Water Management	5.1. Develop guidelines on management of runoff from urban areas and effluents from storm water sewers; promotion of the use of Green Infrastructure and nature-based solutions	N		<p><b>Questions:</b></p> <ol style="list-style-type: none"> <li>1) Is there sufficient baseline information on storm water management/runoff/ effluents in the Mediterranean?</li> <li>2) Should the topic of storm water management be considered as an annex to the updated/ new regional plan of municipal wastewater treatment or a separate regional plan?</li> </ol>

<sup>5</sup> Helsinki Convention, Annex III, Part II Prevention of Pollution from Agriculture; HELCOM RECOMMENDATION 24/3: measures aimed at the reduction of emissions and discharges from agriculture; HELCOM RECOMMENDATION 19/6: amendments to Annex iii of the Helsinki Convention concerning regulations on prevention of pollution from agriculture (26 March 1998); HELCOM RECOMMENDATION 31E/3: cadmium in fertilizers

<sup>6</sup> PARCOM RECOMMENDATION 94/7 on the Elaboration of National Action Plans and Best Environmental Practice (BEP) for the Reduction of Inputs to the Environment of Pesticides from Agricultural Use; OSPAR RECOMMENDATION 2000/1 on Best Environmental Practice (BEP) for the Reduction of Inputs of Agricultural Pesticides to the Environment through the Use of Integrated Crop Management Techniques; Guideline 6: Quantification and Reporting of Nitrogen and Phosphorus Losses from Diffuse Anthropogenic Sources, and natural Background Losses (Reference Number: 2007-8)

<sup>7</sup> FAO 2010, Technical Guidelines for Responsible Fisheries 5, Aquaculture Development Suppl. 4. Ecosystem approach to aquaculture

<sup>8</sup> GFCM Decisions on: Guidelines for the streamlining of aquaculture authorization and leasing processes; A strategy for the sustainable development of Mediterranean and Black Sea aquaculture; The reporting of aquaculture data and information repealing Recommendation GFCM/35/2011/6; Guidelines on Allocated Zones for Aquaculture (AZA)

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
	5.2. Establish appropriate sewage and storm water collection systems, WWTPs and waste management systems to prevent runoff and riverine inputs on marine litter	E	<p><b>Decision IG.19/7 RP on reduction of BOD5 from Urban Wastewater Treatment Plants</b></p> <p><b>APPENDIX I</b></p> <p>Collecting systems should take into account waste water treatment requirements. The design, construction of collecting systems should be undertaken considering the best technical knowledge, notably regarding (...) (d) the separation of storm water pipes from collection pipes of WWTP, when applicable.</p>	<p><b>Issues to consider:</b></p> <ol style="list-style-type: none"> <li>3) Best practices to be considered for storm water management, including separate collection systems green infrastructure, ICZM, land use planning, etc.</li> <li>4) Best practices and challenges faced on enforcement at national level?</li> <li>5) Possible links with the Regional Plan on Marine Litter Management.</li> </ol>
6. Marine Litter (upgrade)	6.1. Strengthen solid waste management systems in the region: adopt quantifiable targets as appropriate, promote adequate collection and treatment/ disposal, stimulate recycling and uptake of new waste management technologies	E+N	<p><b>Decision IG.21/7 Regional Plan on Marine Litter Management in the Mediterranean (MLRP)</b></p> <p><b>Art 9.2.</b></p> <p>By the year 2019 implement adequate waste reducing/reusing/recycling measures in order to reduce the fraction of plastic packaging waste that goes to landfill or incineration without energy recovery.</p>	<p><b>Issues to consider:</b></p> <ol style="list-style-type: none"> <li>1) Potential new concrete measures/ specifications to be included in the upgraded MLRP with regards to: <ul style="list-style-type: none"> <li>o Microplastics</li> <li>o Single use plastic bags</li> </ul> </li> <li>2) Best practices for solid waste collection/ treatment/ disposal/ recycling to be considered</li> </ol>
	6.2. Promote waste prevention at source, better integration of SCP principles and measures, decoupling waste generation from economic growth, green procurement and adoption and implementation of circular economy strategies	E+N	<p><b>MLRP Art.9.1.</b></p> <p>By the year 2025 at latest, to base urban solid waste management on reduction at source, applying the following waste hierarchy as a priority order in waste prevention and management legislation and policy: prevention, preparing for re-use, recycling, other recovery, e.g. energy recovery and environmentally sound disposal.</p> <p><b>MLRP Art.9.3.</b></p> <p>By the year 2017 explore and implement to the extent possible prevention measures related to:</p> <p>(a) Extended Producer Responsibility strategy by making the producers, manufacturer brand owners and first importers responsible for the entire life-cycle of the product with measures prioritizing the hierarchy of waste management in order to encourage companies to design products with long durability for reuse, recycling and materials reduction in weight and toxicity</p>	<p><b>Issues to consider:</b></p> <ol style="list-style-type: none"> <li>3) Existing application of circular economy strategies/measures in waste prevention/management</li> <li>4) Eco-taxes</li> <li>5) Entire chain impacting the generation of marine litter from providers of the raw materials to the manufacture of plastics to consumers of plastics (i.e. packaging)</li> </ol>

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
	6.3. Close the illegal dumps	E	<p><b>MLRP Art.9.9</b> The Contracting Parties shall take the necessary measures by the year 2020 to close to the extent possible the existing illegal dump sites on land in the area of the application of the Regional Plan.</p>	<p><b>Question:</b> 6) Strengthening the existing enforcement measures? And how?</p>
	6.4. Incorporate marine litter into national regulations, prepare Marine Litter National Action Plans	E+N	<p><b>MLRP Art. 7 Integration of marine litter measures into the LBS National Action Plans (LBS NAPs)</b></p> <p>Par.2 The LBS National Action Plan shall include: (a) Development and implementation of appropriate policy, legal instruments and institutional arrangements, including adequate management plans for solid waste also including those originating from sewer systems, which shall incorporate marine litter prevention and reduction measures; (b) Monitoring and assessment programmes for marine litter; (c) Measures to prevent and reduce marine litter; (d) Programmes of removal and environmentally sound disposal of existing marine litter according to the national legislation about management of this kind of waste; and (e) Awareness raising and education programmes.</p>	Done
	6.5. Establish a regional marine litter database	E	<p><b>MLRP Art.12.1b</b> Establish in the year 2016 the Regional Data Bank on Marine Litter which should be compatible with other regional or overarching databases.</p>	Ongoing

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
	<p>6.6. Stimulate reduction/recycling/ prevention of plastics by, for example, adoption of recycling targets, promotion of sustainable consumption patterns, promotion of instruments to reduce packaging wastes, replacement of plastics with bioplastics where feasible, preventing/ reducing use of microplastics (microbeads) in personal care and cosmetics products, and similar</p>	E+N	<p><b>MLRP Art.9.2</b> By the year 2019 implement adequate waste reducing/reusing/recycling measures in order to reduce the fraction of plastic packaging waste that goes to landfill or incineration without energy recovery.</p> <p><b>MLRP Art.9.3</b> (b) Sustainable Procurement Policies contributing to the promotion of the consumption of recycled plastic-made products; (c) Establishment of voluntary agreements with retailers and supermarkets to set an objective of reduction of plastic bags consumption as well as selling dry food or cleaning products in bulk and refill special and reusable containers; (d) Fiscal and economic instruments to promote the reduction of plastic bag consumption; (e) Establishment of Deposits, Return and Restoration System for expandable polystyrene boxes in the fishing sector; (f) Establishment of Deposits, Return and Restoration System for beverage packaging prioritizing when possible their recycling; and (g) Establish procedures and manufacturing methodologies together with plastic industry, in order to minimize the decomposition characteristics of plastic, to reduce micro-plastic.</p>	<p><b>Questions:</b></p> <p>7) Promote sharing of best practices. Any need for new measures? 8) Description of concrete measures to further develop and implement art. 9.2 and 9.3, including technical specifications and guidance for their implementation?</p>
	<p>6.7. Assess options for phasing out landfilling of recyclable wastes (in particular plastics)</p>	N	<p><b>MLRP Art.9.2</b> By the year 2019 implement adequate waste reducing/reusing/recycling measures in order to reduce the fraction of plastic packaging waste that goes to landfill or incineration without energy recovery.</p>	<p><b>Issues to consider:</b></p> <p>9) Available baseline information on landfilling of recyclable waste? 10) Best practices in the region? 11) What kind of concrete standards can be considered?</p>
	<p>6.8. Adopt common definition of microplastics and studies to improve knowledge (sources, quantities, impacts, possible</p>	N	<p><b>MLRP Annex III Potential Research Topics</b> <b>MICROLITTER</b></p> <ul style="list-style-type: none"> <li>• Identification of main sources (industrial pellets and personal hygiene products related micro litter particles).</li> </ul>	<p><b>Issues to consider:</b></p> <p>12) Provision of definition of microplastic 13) Provision of definition of biodegradable plastic</p>

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
	reduction/ prevention measures, differentiated for primary and secondary microplastics)		<ul style="list-style-type: none"> <li>Define harm for micro litter to establish potential physical and chemical impacts on wildlife, marine living resources and the food chain.</li> <li>Define adequate indicators for the Mediterranean to assess the micro litter problem and its effects.</li> </ul>	
	6.9. Promote introduction of region-wide plastic bag tax (alternatively promote coordinated approach to restricting single-use plastic bags)	E+N	<p><b>MLRP Art. 9.3</b> By the year 2017 explore and implement to the extent possible prevention measures related to: (d) Fiscal and economic instruments to promote the reduction of plastic bag consumption;</p>	<p><b>Issues to consider:</b> 14) Sharing of best practices. Please list 2-3 best practices.</p>
	6.10. Strengthen the implementation of MARPOL Annex V on the prevention of pollution by garbage from ships	E+N	<p><b>MLRP Art.9.5</b> (...) The Contracting Parties shall also take the necessary steps to provide ships using their ports with updated information relevant to the obligation arising from Annex V of MARPOL Convention and from their legislation applicable in the field.</p>	Ongoing. (outside the scope of this meeting)
	6.11. Use of port reception facilities at no-special-fee	E+N	<p><b>MLRP Art.9.5</b> In accordance with Article 14 of the Prevention and Emergency Protocol explore and implement to the extent possible by 2017, ways and means to charge reasonable cost for the use of port reception facilities or when applicable, apply No-Special-Fee system. (...) <b>MLRP Art.10</b> (...) the Contracting Parties undertake to explore and implement to the extent possible the following measures by the year 2019: (f) Charge reasonable costs for the use of port reception facilities or, when applicable apply No-Special-Fee system, in consultation with competent international and regional organizations, when using port reception facilities for implementing the measures provided for in Article 10.</p>	Ongoing. (outside the scope of this meeting)
	6.12. Implement prevention/ retrieval of lost/discarded fishing gear; assessment options for collecting and	E+N	<p><b>MLRP Art.9.7</b> Explore and implement to the extent possible by the year 2017 “Gear marking to indicate ownership” concept and ‘reduced ghost catches through the use of environmental</p>	<ul style="list-style-type: none"> <li>FAO Technical Consultation on the Marking of Fishing Gear (Rome, Italy, 5–9 February 2018)</li> </ul>

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
	processing/ recycling fishing gear and equipment at the end of its useful life		neutral upon degradation of nets, pots and traps concept', in consultation with the competent international and regional organizations in the fishing sector.	<ul style="list-style-type: none"> <li>• Draft Guidelines on the Marking of Fishing Gear (TCMFG/2018/3);</li> <li>• Draft Annexes and Appendices to the Draft Guidelines on the Marking of Fishing Gear TCMFG/2018/4</li> </ul>
	6.13. Encourage and implement to the extent possible 'fishing for litter' schemes	E+N	<p><b>MLRP Art.9.6</b> Explore and implement to the extent possible by the year 2017 the "Fishing for Litter" environmentally sound practices, in consultation with the competent international and regional organizations, to facilitate clean-up of the floating litter and the seabed from marine litter caught incidentally and/or generated by fishing vessels in their regular activities including derelict fishing gears.</p> <p><b>MLRP Art.10</b> (...) the Contracting Parties undertake to explore and implement to the extent possible the following measures by the year 2019:</p> <p>(e) Apply Fishing for Litter in an environmentally sound manner, based on agreed guidelines and best practice, in consultation with the competent international and regional organizations and in partnership with fishermen and ensure adequate collection, sorting, recycling and/or environmentally sound disposal of the fished litter.</p> <p>Fishing for Litter Guidelines adopted by COP 19 (Decision IG. 22/10).</p>	Ongoing; Fishing for Litter Guidelines adopted by COP 19 (Decision IG. 22/10);
	6.14. Implement pilot projects for removal of marine litter accumulations impacting on MPAs	E+N	<p><b>MLRP Art.10</b> The Contracting Parties shall, where it is environmentally sound and cost effective, remove existing accumulated litter, subject to Environmental Impact Assessment procedure, in particular from specially protected areas and Specially Protected Areas of Mediterranean Importance (SPAMI) and litter impacting endangered species listed in Annexes II and III of the SPA and Biodiversity Protocol.</p>	<p><b>Question:</b> 15) Is there any need to set stricter measures related to Marine Litter for MPAs?</p>



Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
	6.15. Develop and implement measures to reduce incidence of cigarette butts in marine environment, including provision of adequate facilities and signs on organised beaches, awareness raising and clean-up activities	E+N	No specific provision on cigarette butts.	<p>According to the most recent assessment cigarette butts consist a considerable amount of ML items on the beach.</p> <p><b>Question:</b> 16) Any recommendations on concrete technical measures for cigarette butts?</p>
	6.16. Clean-up activities targeting riverbanks	E+N	<p>There are provisions in the MLRP for removal of marine litter and clean up campaigns</p> <p><b>Art.10</b> (a) Identify in collaboration with relevant stakeholders' accumulations/hotspots of marine litter and implement national programmes on their regular removal and sound disposal; (b) Implement National Marine Litter Cleanup Campaigns on a regular basis; (c) Participate in International Coastal Cleanup Campaigns and Programmes.</p> <p>However, no specific reference is made to targeted riverbanks clean-up activities.</p>	Ongoing
	6.17. Promote and expand beach stewardship schemes	E+N	<p><b>MLRP Art.10</b> (...) the Contracting Parties undertake to explore and implement to the extent possible the following measures by the year 2019: (d) Apply as appropriate Adopt-a-Beach or similar practices and enhance public participation role with regard to marine litter management.</p>	<ul style="list-style-type: none"> <li>Ongoing; Guidelines under preparation.</li> </ul>

Suggested Pollution Reduction RP	Measures	E/N	Existing relevant MAP BC RP measures	Potential new elements for consideration
Industrial Pollution <sup>9</sup>			<b>Decision IG.20/8.1                      Regional Plan on the reduction of inputs of Mercury in the framework of the implementation of Article 15 of the LBS Protocol</b>	<ul style="list-style-type: none"> <li>This was addressed above in section 1.4. of the table.</li> </ul>

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<sup>9</sup> This has not been part of the table of clustered new/updated measures, which was agreed by the MED POL Focal Points Meeting (Rome, Italy, May 2017), but is part of the work mandated to the Secretariat regarding the refinement and update of the priority contaminants list. It is therefore added to the table for consideration and review by the meeting