



UNITED
NATIONS

EP

UNEP/MED WG.472/Inf.3



UNEP



UNITED NATIONS
ENVIRONMENT PROGRAMME
MEDITERRANEAN ACTION PLAN

2 May 2019
Original: English

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

Istanbul, Turkey, 28 May 2019

Agenda item 3: Proposed Main Elements of the six Pollution Reduction Regional Plans

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

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UNEP/MAP
Athens, 2019



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UNEP/MED WG.454/4



**UNITED NATIONS
ENVIRONMENT PROGRAMME
MEDITERRANEAN ACTION PLAN**

UNEP

21 January 2018
Original: English

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

Athens, Greece, 20-21 November 2018

Report of the Meeting

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UNEP/MAP
Athens, 2019

Table of Contents

	Pages
Report of the Meeting	1 - 6
Annex I: List of Participants	
Annex II: Provisional Agenda	
Annex III: Conclusions and Recommendations	
Appendix 1: English Version	
Appendix 2: French Version	

Introduction

1. In accordance with the UN Environment/MAP Programme of Work 2018-2019 (Decision IG.23/14) adopted by the 20th Ordinary Meeting of the Contracting Parties to the Barcelona Convention and its Protocols (Tirana, Albania, 17-21 December 2017), UN Environment/ Mediterranean Action Plan (MAP) Barcelona Convention Secretariat, (MED POL Programme) organized the First Regional Meeting of Experts on the Six Pollution Regional Plans that was held on 20 and 21 November 2018, in Athens, Greece at the Stanley Hotel.
2. The First Regional Meeting of Experts on the Six Pollution Regional Plans addressed the mandate to deliver six Regional Plans, namely: (i) Municipal Wastewater Treatment; (ii) Sewage Sludge Management; (iii) Agriculture Nutrients Management; (iv) Aquaculture Nutrients Management; (v) Urban Storm Water Management; and (vi) Marine Litter.

Participation

3. The meeting was attended by representatives from the following Contracting Parties: Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Greece, Israel, Italy, Lebanon, Libya, Malta, Morocco, Slovenia, Spain, Tunisia and Turkey. Palestine attended as Observer. The United Nations Environment (UN Environment), including the Mediterranean Action Plan/ Barcelona Convention Secretariat (UN Environment/ MAP) were also represented along with the Mediterranean Action Plan Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC).
4. The following non-governmental organizations were also represented: International Centre of Comparative Environmental Law (C.I.D.C.E.), Hellenic Marine Environment Protection Association (HELMPEA), World Wide Fund for Nature-Mediterranean (WWF-Medpo), and World Wide Fund for Nature-Greece (WWF-Greece). The National and Kapodistrian University of Athens was also represented.
5. The full list of participants is attached as Annex I to the present report.

Agenda item 1: Opening of the Meeting

6. The meeting was opened by Mrs Tatjana Hema, Deputy Coordinator of UN Environment/Mediterranean Action Plan-Barcelona Convention Secretariat.
7. The Deputy Coordinator, welcomed the participants and highlighted the important progress achieved by the Contracting Parties to the Barcelona Convention, working together with the MAP Secretariat, in the implementation of the NAPs and Regional Plans. She provided brief information on the ongoing implementation of MAP's Programme of Work with a special focus on a number of outcomes related to the development of the six new/updated Regional Plans. Referring to the global efforts addressing pollution such as the preparation of the Implementation Plan "Towards a Pollution-Free planet" mandated by UNEA3; the 4th Inter-Governmental Review (IGR-4) of the UNEP Global Programme of Action (UNEP/GPA); global initiatives to combat marine pollution from plastics; and the new draft directive of the European Union addressing marine pollution from plastics, the Deputy Coordinator stressed the importance of the COP20, with its forward looking in the right direction, anticipating the development of new measures that contribute to global efforts to combat pollution and achieve Sustainable Development Goals.

Agenda item 2: Organizational Matters

a) Rules of Procedure for the Meeting on the Six Pollution Reduction Regional Plan

9. The rules of procedure for meetings and conferences of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols were applied mutatis mutandis to the present Meeting (UNEP/IG.43/6, Annex XI).

b) Election of Officers

10. Subject to Rule 20 of the rules of procedure mentioned at para. 2(a) for meetings and conferences of the Contracting Parties, the Meeting elected one (1) President, three (3) Vice Presidents and one (1) Rapporteur from among the participants, as follows:

Chair : Mme Samira Hamidi, Algérie.
Vice-Chair : Mrs Selma Cengic, Bosnia & Herzegovina.
Vice-Chair : Mr Neoklis Antoniou, Cyprus.
Vice-Chair : M Mohammed El Bouch, Maroc.
Rapporteur : Mr Giordano Giorgi, Italy.

c) Adoption of the Provisional Agenda

11. Subject to Rule 14 of the rules of procedure mentioned at para. 2(a), the proposed agenda appearing in document UNEP/MED WG.454/1/Rev.1 and annotated in document UNEP/MED WG.454/2 was reviewed and adopted without changes. Under Agenda Item 5 “Any Other Business”, the meeting agreed with Secretariat’s proposal to have SCP-RAC give a short presentation on their publication focusing on the enabling instruments to implement safe alternatives to toxic chemicals.

d) Organization of work

12. The Meeting agreed that discussions will be held in plenary sessions with simultaneous interpretation in English and French. As per practice, pre-session documentation was not distributed on paper. Participants were encouraged to download the documentation on their computers in advance of the session.

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

13. Under this agenda item, the Deputy Coordinator briefly presented a comprehensive overview of the process for development of the main elements of the six Regional Plans as elaborated in the Working Document UNEP/MED WG.454/3), addressing in particular their anticipated added value and the new elements including, i.e. regional and national priorities of the Contracting Parties; emerging issues and the global work; and status of implementation of the existing Regional Plans, noting that the Contracting Parties will submit reports on status of implementation of existing Regional Plans by end of 2018. She also indicated that sectoral assessments will be undertaken as a basis for the preparation of the new Regional Plans, taking into consideration cross-cutting issues such as climate change, economic benefit, other approaches including sustainable consumption and production (SCP), circular economy, energy/resource efficiency and water saving and efficiency.

14. Mr. Mohamad Kayyal, MED POL Programme Management Officer presented a proposed outline of the elements of the six Regional Plans and the geographical scope for application of these new Plans.

15. The representatives of the Contracting Parties shared their views on the structure and geographical scope for the new Regional Plans. With regards to the outline and structure, governance, communications and awareness raising were proposed as new elements to be included in the structure of the new Regional Plans. Concerning the geographical scope, a question was raised about riverine inputs from countries not signatory to the Barcelona Convention, and groundwater aquifers connecting to the Mediterranean Sea.

16. Following a question by the floor with regards to the groundwater aquifers, the Secretariat pointed out that coastal aquifers form part of the hydrologic basin. They are interconnected hydrogeologically to the Mediterranean Sea, and as such their geographical limits constitute an integral part in the geographical scope of the new Regional Plans.

17. The conclusions regarding this agenda item are presented in Annex III to the present report.

Agenda item 4: Main Elements of the Six Pollution Reduction Regional Plans

18. Under this agenda item, the Secretariat made six presentations of the main elements for developing each of the six new Regional Plans (Municipal Wastewater Treatment, Sewage Sludge Management, Agriculture Nutrients Management, Aquaculture Nutrients Management, Marine Litter, and Urban Storm Water Management).

19. With regards to the new Regional Plan on Municipal Wastewater Treatment Plants, representatives of the Contracting Parties raised issues related to extending the scope of emission limit values (ELV) to include parameters for Chemical Oxygen Demand (COD), Total Organic Carbon (TOC) and Oxidation Reduction (REDOX) Potential (ORP), in addition to the Biological Oxygen Demand (BOD); need for distinguishing between small and large industries; varying load of wastewater and its impact on operational efficiency and design of MWWTP; highlighting the effect of pre-treatment on influent wastewater quality; recycling of treated water in recharge of aquifers (including need for publishing guidelines on the subject); prioritization of treatment based on size of agglomeration; connecting industries to MWWTP; financial costs associated with pretreatment of industrial effluents, particularly for small industries; impact of leachate on polluting the marine environment; need for strategies for wastewater reuse; and need for strict regulations in the municipal wastewater sector.

20. Following discussions and clarifications provided by the Secretariat, the agreed changes were reflected in the main elements of this Regional Plan as indicated in point 6 of the conclusions of the meeting.

21. With regards to the new Regional Plan on Sewage Sludge Management, representatives of the Contracting Parties raised issues and made suggestions concerning pathogens in the sludge and means to control their contamination including laboratory testing; need to minimize landfilling activities; need to regulate storage conditions of sludge; application of sewage sludge in farming; sludge management schemes including incineration; and research and development for reuse of sludge as raw material for other products.

22. Following discussions and clarifications provided by the Secretariat, the agreed changes were reflected in the main elements of this Regional Plan as indicated in point 8 of the conclusions of the meeting.

23. With regards to the new Regional Plan on Agriculture Nutrients Management, representatives of the Contracting Parties raised issues concerning the exact meaning of efficient irrigation and its

implication on nutrient management; effect of geology and topology on discharge of nutrients from agricultural practices; manure management; seasonal use of fertilizers based on rainy seasons; irrigation with treated wastewater with high nitrogen content; need to control use of pesticides and fertilizers near drinking water sources; transition to appropriate irrigation systems in economically irrigable areas especially for sensitive areas and hot spots; and encouraging forestation in areas sensitive to erosion as an effective method for controlling and reducing influent of nutrients from agriculture to the Mediterranean Sea.

24. Following discussions and clarifications provided by the Secretariat, the agreed changes were reflected in the main elements of this Regional Plan as indicated in point 10 of the conclusions of the meeting.

25. With regards to the new Regional Plan on Aquaculture Nutrients Management, representatives of the Contracting Parties raised issues concerning site selection based on carrying capacity set by types of species in the aquaculture plant; use of the “Trix Index” to identify water quality of bays impacted by fish farms and land-based sources; introducing alternative feeding practices, improved abatement measures for the collection of oily residue, regular movement of cages to avoid development of anoxic zones, and alternative disposal/ re-use of offal as a means to reduce nutrient pollution from aquaculture plants; controlling discharge in aquaculture facilities through monitoring sediments and the water column; conducting impact assessment of contaminants that affect the marine environment; application of maritime spatial planning before installing aquaculture plants; address proximity of sources of water used in the cages as sometimes they are very rich in nutrients; and address the issues of antibiotics and copper from aquaculture plants.

26. Following discussions and clarifications provided by the Secretariat, the agreed changes were reflected in the main elements of this Regional Plan as indicated in point 12 of the conclusions of the meeting.

27. With regards to the upgraded Regional Plan on Marine Litter, representatives of the Contracting Parties raised issues concerning the need to distinguish between three categories of marine litter: land, coast and sea-based; need for assigning legal and institutional responsibilities for handling marine litter; importance for focusing on the fact that much of the marine litter is of riverine origin; need to introduce incentives for reducing packaging as one of the key sources of marine litter taking into account principles of circular economy; importance of promoting public-private partnership; need for strengthening legal framework in CPs as many of them do not have any national laws that regards marine litter management; and awareness raising as an important instrument for raising public’s attention to the problem of marine litter.

28. Representative of the WWF-MED indicated their full support to upgrading the Marine Litter Regional Plan. She noted that WWF objective on plastic pollution towards COP 21 is “Strengthening the Regional Action Plan on Marine Litter to include more specific and stringent targets towards the reduction of plastic pollution and the improvement of waste management.” WWF proposed the definition of specific targets for the amount of plastics to be recycled (e.g. 70% for developed countries and 50% for developing countries); promotion of new technological solutions (e.g. ghost nets); and banning microplastics added to personal care products.

29. Representative of SCP-RAC proposed incorporating new measures into the Marine Litter Regional Plan related to microplastics including promoting research and identification of the different sources of primary and secondary microplastics, assessment if primary and secondary microplastics are covered by legislation, and investigating and promoting with appropriate industries the use of BAT/BEP to develop sustainable and cost effective solutions to reduce and prevent sewage and storm water related-

waste from entering into the marine environment. SCP-RAC representative also proposed other additional measures such as replacement of plastics with bioplastics where feasible; addressing “Most Commonly Found” (MCF) marine litter items in the Mediterranean region as appropriate; and including bans on certain products, consumption reduction targets, obligations for producers, collection targets, labelling requirements and awareness-raising measures.

30. Following discussions and clarifications provided by the Secretariat, the agreed changes were reflected in the main elements of this Regional Plan as indicated in point 14 of the conclusions of the meeting.

31. With regards to the new Regional Plan on Urban Storm Water Management, representatives of the Contracting Parties raised issues concerning the need to address impacts of climate change on generation of storm water; risk management of floods and severe storms on urban storm water systems; need to address drainage plans of rainwater and flooding water streams; incorporating urban zoning plans into storm water management plans; research and innovation for developing sustainable urban drainage solutions (e.g. green roofs, etc.); maintenance of storm water networks and effluent points; and socioeconomic analysis when developing risk management plans.

32. Following discussions and clarifications provided by the Secretariat, the agreed changes were reflected in the main elements of this Regional Plan as indicated in point 16 of the conclusions of the meeting.

33. UN Environment/Mediterranean Action Plan-Barcelona Convention Secretariat Deputy Coordinator presented the proposal with several options for a differentiated approach for the development, negotiation and adoption of the six Regional Plans, and invited the meeting to provide their feedback with the view to making a final timeline and approach proposal for the MED POL Focal points meeting in late Spring 2019.

34. Following discussions, several timetable approaches were recommended including the clustering by theme, need for in-depth assessment that may differ from one Regional Plan to another, timing for implementation of the measures taking into account the MAP and SDG objectives up to 2030 to achieve/maintain GES, and impact/ risk on the marine environment, etc.

35. The conclusions regarding this agenda item including the final versions of the main elements of each Regional Plan, and criteria for the preparation timetable, are presented in Annex III to the present report.

Agenda item 5: Any Other Business

36. Under this Agenda item, Mrs. Kimberly de Miguel Wardle from SCP-RAC presented a publication focusing on the enabling instruments to implement safe alternatives to toxic chemicals.

37. The meeting participants commented positively on the importance of this publication noting that it offers options to deal with toxic chemicals elimination/phasing out possibilities and their replacement by safer alternatives.

Agenda item 6: Conclusions and Recommendations

38. The meeting reviewed the draft conclusions and recommendations as well as the final elements of the Regional Plans prepared by the Rapporteur and adopted them as slightly revised as presented in Annex III to the present report.

Agenda item 7: Closure of the Meeting

39. After the expression of usual courtesies, the Chair declared the meeting closed at 17:30 on Wednesday 21 November 2018.

Annex I
List of Participants

**REPRESENTATIVES OF THE CONTRACTING PARTIES / REPRESENTANTS DES PARTIES
CONTRACTANTES**

ALGERIA / ALGERIE	<p>Mme Samira Hamidi Inspectrice Générale de l'Environnement Ministère de l'Environnement et des Energies Renouvelables, Direction Générale de l'Environnement et du Développement Durable République Algérienne Démocratique et Populaire</p> <p>Tel : +213 0 2143 2847 E-mail : natechesamira@yahoo.fr</p>
BOSNIA AND HERZEGOVINA / BOSNIE ET HERZÉGOVINE	<p>Mrs Selma Cengic Executive Director Hydro engineering Department Hydro Engineering Institute Sarajevo</p> <p>Tel: +387 33 2079 49 Fax: +387 33 207 949 Email: selma.cengic@heis.ba</p>
CROATIA / CROATIE	<p>Mrs Slavica Matijevic Research Scientist Institute of Oceanography and Fisheries</p> <p>Email: dosen@izor.hr</p>
CYPRUS / CHYPRE	<p>Mr Neoklis Antoniou Environment Officer - Department of Environment Ministry of Agriculture, Rural Development and Environment</p> <p>Tel : +35722408936 E-mail: nantonou@environment.moa.gov.cy</p> <p>Mr Konstantinos Antoniadis Officer of Fisheries and Marine Research Department of Fisheries and Marine Research Ministry of Agriculture Rural Development and Environment</p> <p>Tel: +35722807854 Email: kantoniadis@dfmr.moa.gov.cy</p>

GREECE / GRECE	<p>Mr Georgios Melekis Programme Officer Special Secretariat for Water Ministry of Environment and Energy</p> <p>Tel: +30 210 36000000 Email: g.melekis@prv.ypeka.gr</p>
ISRAEL / ISRAEL	<p>Mr Ilan Malester Ministry of the Environment, Haifa Marine and Coastal Environment Division Ministry of Environmental Protection</p> <p>Tel : +972 4 8633503 E-mail ilanm@sviva.gov.il</p>
ITALY /ITALIE	<p>Mr Giordano Giorgi Researcher - Marine Environment Monitoring and Assessment Unit Italian National Institute for Environmental Protection and Research</p> <p>Tel : +390650074640 E-mail : giordano.giorgi@isprambiente.it</p>
LEBANON / LIBAN	<p>Mr Najib Abi Chedid Environmental Expert Department of Urban Environmental Pollution Control Ministry of Environment</p> <p>Tel: +961-1-976555 ext: 421/429 E-Mail: N.abichedid@moe.gov.lb</p>
STATE OF LIBYA / ÉTAT DE LIBYE	<p>Mrs Samia Grimida Project Coordinator Environment General Authority Ain Zara Tripoli</p> <p>Tel : +218919774420 E-mail : fitori@hotmail.com</p>
MALTA / MALTE	<p>Mrs Claudine Cardona Senior officer International Affairs International Affairs Environment and Resources Authority</p> <p>Tel : +35622923622 E-mail : Claudine.Cardona@era.org.mt</p>

MOROCCO / MAROC	<p>M. Mohammed Elbouch Chef de la Division "Laboratoire National des Etudes et de Surveillance de la Pollution" Direction de la Surveillance et de la Prévention des Risques Ministère Délégué auprès du Ministre de l'Energie, des Mines, de l'Eau et de l'Environnement, chargé de l'Environnement</p> <p>Tel +212 537.77.01.18 E-mail : elbouch21@yahoo.fr; elbouch@environnement.gov.ma</p>
SLOVENIA / SLOVENIE	<p>Mrs Klara Jarni Institute for Water of the Republic of Slovenia</p> <p>Tel : + 386 (0)1 47 75 350 E-mail: klara.jarni@izvrs.si</p>
SPAIN / ESPAGNE	<p>Mr Jorge Ureta Maeso Sea Protection Division Spanish Ministry of Agriculture, Food and Environment</p> <p>Tel: +34915975508 E-mail: jureta@magrama.es</p> <p>Mrs Carmen Coletto Head of the International Unit of the General Water Directorate, Ministry for the Ecological Transition, Madrid</p> <p>Tel: +34915975433 Fax: +34915975431 Email: ccoletto@mapama.es</p>
TUNISIA / TUNISIE	<p>M. Mourad Ben Moussa Direction de la dépollution Agence Nationale de Protection de l'Environnement</p> <p>E-mail : benmoussa.mourad@yahoo.fr</p>
TURKEY / TURQUIE	<p>Mrs Asli Topalak Expert Ministry of Environment and Urbanization General Directorate of Environmental Management Marine and Coastal Management Department</p> <p>Tel: +90 5332532792 Email: asli.topalak@csb.gov.tr</p>

<p>OBSERVER STATES</p> <p>PALESTINE</p>	<p>Mrs Doaa Draid Inspector of EQA Qalqilya office, Environment quality Authority - Tulkarm</p> <p>Tel: +970568881868 E-mail : doadreams@yahoo.com</p>
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**NON-GOVERNMENTAL ORGANIZATIONS
ORGANISATIONS NON-GOUVERNEMENTALES**

CENTRE INTERNATIONAL DE DROIT COMPARE DE L'ENVIRONNEMENT (CIDCE)	Mme. Isabelle Trinquelle Tel: +306974981323 E-mail: itrinquelle@gmail.com
HELLENIC MARINE ENVIRONMENT PROTECTION ASSOCIATION (HELMPEA)	Mr Ioannis Pesmatzoglou Maritime Training Officer E-mail: training@halmepa.gr
WORLD WILDLIFE FUND - GREECE	Mr. Achilleas Plitharas Engagement officer E-mail : a.plitharas@wwf.gr
WORLD WILDLIFE FUND – MEDITERRANEAN MARINE INITIATIVE	Mrs. Stefania Campogianni Marketing and Communications Manager Tel: +39 346 3873237 E-mail: scampogianni@wwfmedpo.org

INVITED EXPERTS / EXPERS INVITES

Mrs Emmanuella Doussis
National and Kapodistrian University of Athens

Tel: +00306973490248
E-mail: edoussis@gmail.com

**SECRETARIAT TO THE BARCELONA CONVENTION AND COMPONENTS OF THE
MEDITERRANEAN ACTION PLAN
SECRETARIAT DE LA CONVENTION DE BARCELONE ET COMPOSANTES DU
PLAN D'ACTION POUR LA MEDITERRANEE**

<p>UN ENVIRONMENT /MAP / ONU ENVIRONNEMENT/PAM</p>	<p>Mrs Tatiana Hema Deputy Coordinator</p> <p>Tel.:+30 210 7273115 E-mail: tatiana.hema@un.org</p> <p>Mr Mohamad Kayyal Programme Management Officer Mediterranean Pollution Assessment and Control Programme (MED POL)</p> <p>Tel:+30 210 7273 E-mail: mohamed.kayyal@un.org</p> <p>Mr Erol Cavus Pollution Officer Mediterranean Pollution Assessment and Control Programme (MED POL)</p> <p>Tel: +30 210 7273123 E-mail: erol.cavus@un.org</p> <p>Mrs Jelena Knezevic Monitoring and Assessment Officer Mediterranean Pollution Assessment and Control Programme (MED POL)</p> <p>Tel: +30 210 72 73 116 Email: Jelena.knezevic@un.org</p> <p>Mr Christos Ioakeimidis Marine Litter Project Officer Mediterranean Pollution Assessment and Control Programme (MED POL)</p> <p>Tel: +302107273126 E-mail: christos.ioakeimidis@un.org</p> <p>Mr Stavros Antoniadis Policy and Project Expert</p> <p>Tel: +302107173140 E-mail: Stavros Antoniadis@un.org</p>
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	<p>Mrs Susanna Casanovas Bonvehi Consultant</p> <p>Tel: +34935830500 E-mail: susanna.casanovas@amphos21.com</p> <p>Mr Dimitrios Tsotsos Consultant</p> <p>Tel : +306936773334 E-mail: tsotsosd@gmail.com</p>
<p>REGIONAL ACTIVITY CENTRE FOR SUSTAINABLE CONSUMPTION AND PRODUCTION (SCP/RAC) / CENTRE D'ACTIVITES REGIONALES POUR LA CONSOMATION ET LA PRODUCTION DURABLES</p>	<p>Mrs Kimberley de Miguel Wardle Programme Officer</p> <p>Tel: +34 93 554 16 66 E-mail: kdemiguel@scprac.org</p>

Annex II
Agenda of the Meeting

Agenda of the Meeting

- Agenda item 1:** Opening of the Meeting
- Agenda item 2:** Organizational Matters
- Agenda item 3:** Development of Regional Plans under Article 15 of the Land-Based Sources Protocol of the Barcelona Convention
- Agenda item 4:** Main Elements of the Six Pollution Reduction Regional Plans
- Agenda item 5:** Any other business
- Agenda item 6:** Conclusions and Recommendations
- Agenda item 7:** Closure of the Meeting

Annex III
Conclusions and Recommendations
English /French Versions

Appendix 1
English Version
Conclusion and Recommendations

Conclusions and Recommendations

On 20 and 21 November 2018, the First Regional Meeting of Experts on the Six Pollution Regional Plans was held in Athens, Greece at the Stanley Hotel. The meeting was organized by UN Environment/MAP Secretariat (MEDPOL Programme).

Following its deliberations, the meeting concluded as follows:

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

1. The meeting appreciated the work undertaken by the Secretariat in preparation of the meeting; particularly with regards to the working document UNEP/MED WG.454/3 on the Main Elements for the Preparation of the Six Pollution Reduction Regional Plans.
2. The meeting reviewed the main elements and added value expected to be embedded in the Regional Plans. The meeting generally agreed with the proposed outline in order to ensure that the Regional Plans take fully into account the status of implementation of the LBS Protocol and the existing Regional Plans. The meeting further stressed the benefit from the momentum created from pollution and plastic-related initiatives at global and regional levels; duly considering actions on climate change and cost benefit approaches; as well as addressing pollution control and prevention; looking further at the sectorial approach rather than individual contaminants; and emphasizing the application of BAT/BEP, sustainable consumption and production (SCP), and resource and energy efficiency. All this with the overall objective to achieve and maintain Good Environmental Status (GES) in the Mediterranean Sea and coast. The meeting also recommended a more concrete reference of circular economy principles in the approach for developing the Regional Plans.
3. The meeting agreed with the proposal of the Secretariat to build the Regional Plans using the structure of the existing Regional Plans (namely, definition of terms; scope and objectives; proposed regulatory and technical measures in addition to other types of measures such as monitoring, reporting and enforcement; timetable for implementation; support to implementation; entry into force; and annexes). The meeting also recommended the consideration of governance, communication and awareness raising elements as part of the structure of the new Regional Plans.
4. The meeting also took note of the proposal to consider the geographical scope of the application of the six Regional Plans in line with the corresponding scope of the LBS Protocol, noting that certain specifications should be considered individually for each Regional Plan during their preparation, elaboration and negotiation process.

Agenda Item 4: Main Elements of the Six Pollution Reduction Regional Plans

5. Following the presentation by the Secretariat of the main elements of the six Regional Plans (Municipal Wastewater Treatment Plants, Sewage Sludge Management, Agriculture Nutrients Management, Aquaculture Nutrients Management, Urban Storm Water Management and Marine Litter), the meeting provided substantive inputs, proposing amendments to the presented technical measures and suggesting additional elements.
6. With regards to the Regional Plan on Municipal Wastewater Treatment Plants, the meeting agreed as follows:

- a. Regarding the size of agglomerations of 2000 p.e. for which wastewater shall be collected and treated before discharge (according to the existing Regional Plan on the Reduction of BOD5 from Urban Waste Water), concerns were expressed on the related costs and technical difficulties. It was concluded that the size of agglomeration of 2000 p.e. should be retained, whilst allowing flexibility for prioritizing implementation timetable of related measures with regards to size of agglomeration, proximity to sea and coastal area, and sensitivity of the recipient environment;
 - b. The new Regional Plan should promote to the extent possible nature-based solutions for wastewater treatment, especially for small agglomerations. In this respect, the meeting requested the Secretariat to undertake capacity building activities and develop corresponding guidelines;
 - c. The meeting requested that not only industrial wastewater should be considered for municipal wastewater treatment, given that large industrial installations comply with the agreed standards, but also small industrial facilities situated in urban areas;
 - d. The meeting also recommended to consider the issue of infiltration and treatment of leachate, including from septic tanks, in coastal areas with possibility of setting related ELVs;
 - e. The meeting expressed strong concerns regarding recharge of aquifers with treated wastewater. It was requested that the Regional Plan should state that close monitoring of treated wastewater should be undertaken in line with adopted quality standards, including control of salinity;
 - f. The meeting also addressed the need to consider possible scenarios in relation to the seasonal wastewater fluctuations due to influx of population which may cause serious malfunctioning of the wastewater treatment plant and the sewage network;
 - g. Taking into account the accumulated experience in the Mediterranean for reuse of treated wastewater, the meeting recommended to further promote the sharing of best practices among the Contracting Parties in future activities.
7. Finally, the meeting reviewed the revised working document UNEP/MED WG.454/3, and agreed on the final elements of the Regional Plan for Municipal Waste Water Treatment Plants as follows:
- a. Reuse treated municipal wastewater in agriculture (reclaiming nutrients as appropriate);
 - b. Reuse/recycle treated wastewater to address regional water scarcity (e.g. aquifer recharge);
 - c. Set appropriate quality standards for water reuse in agriculture irrigation, aquifer recharge or other uses;
 - d. Apply BAT and BEP, including energy saving or renewable/ alternative energy sources in operating wastewater treatment plants (WWTP);
 - e. Promote nature-based solutions (e.g. constructed wetlands) in small agglomerations as appropriate;
 - f. Set Emission Limit Values (ELVs) for priority substances/emerging contaminants and other parameters based on sensitivity of the recipient environment, as need be;
 - g. Set pre-treatment ELVs for industries to discharge their effluents to collection systems that can be treated in municipal wastewater treatment plants, particularly for small industries located in urban areas;
 - h. Set timeframe(s) for implementation of technologies to reach the adopted ELVs.
8. With regards to the Regional Plan on Sewage Sludge Management, the meeting agreed as follows:
- a. Recycling/ reuse of treated sludge should be considered as a priority option for management of sewage sludge;
 - b. The meeting stressed that sewage sludge contaminated with emerging pollutants and microplastics should be also considered by the new Regional Plan;

- c. The meeting highlighted the problem of sludge storage and the need to elaborate proper storage conditions;
 - d. The meeting further considered the microbiological pollution of sludge, in particular with regards to its recycling, and recommended that this issue is addressed in the new Regional Plan.
9. Finally, the meeting reviewed the revised working document UNEP/MED WG.454/3, and agreed on the final elements of the Regional Plan on Sewage Sludge Management as follows:
 - a. Reduce inflows of heavy metals, persistent organic pollutants and emerging pollutants, including microplastics, in the collection system, taking into consideration discharges from urban centers, discharges from run-off rainwater into combined collection system, and discharges of industrial centers connected to municipal wastewater;
 - b. Prioritize management alternatives for sewage sludge with a view to minimizing landfilling and limiting it only in cases where the following options are not feasible:
 - Reuse/valorization of treated/stabilized sludge as fertilizer or soil conditioner.
 - Energy recovery (e.g. incineration).
 - c. Set ELVs for contaminants found in sludge for various applications;
 - d. Provide for measures addressing the whole chain of the sludge treatment, including dewatering, stabilization, microbiological disinfection, and energy recovery;
 - e. Provide for enforcement measures, i.e. control, inspection, sanctions;
 - f. Set conditions for the temporary/permanent storage for sludge;
 - g. Provide for alternative uses and disposal of sludge.
10. With regards to the Regional Plan on Agriculture [Nutrients] Management, the meeting agreed as follows:
 - a. The meeting highlighted the detrimental effects of agricultural runoff on the Mediterranean marine environment, stressing the need to reduce the use of fertilizers in agricultural areas irrigated by treated wastewater;
 - b. The meeting recommended the promotion of manure composting as an alternative to the use of fertilizers. In this respect, the meeting noted that integrated animal husbandry practices should be promoted;
 - c. The meeting further stressed the importance of promoting appropriate irrigation practices particularly suited for hotspots and sensitive areas;
 - d. The meeting concluded that a guideline on Agriculture [Nutrients] Management can be developed as a first step prior to introducing the new Regional Plan.
11. Finally, the meeting reviewed the revised working document UNEP/MED WG.454/3, and agreed on the final elements of the Regional Plan on Agriculture [Nutrients] Management as follows:
 - a. Minimize/ prevent agricultural runoff, which can include the following measures:
 - i. Irrigation requirements depending on type of plants, land surface, geomorphology and climate;
 - ii. Apply irrigation BAT and BEP, including efficient irrigation systems (drip irrigation, humidity sensors);
 - iii. Apply buffer zones and irrigation depending on cultivation patterns, land surface, geomorphology and climate (to minimize runoff impacts on water bodies). Transition to appropriate irrigation systems in economically irrigable areas, especially for sensitive areas and hotspots.

- b. Fertilizers management, which may include the following measures:
 - i. Set standards on the use of fertilizers depending on type of plants, nitrogen needs, soil properties, quality and quantity of irrigation water, and climate conditions;
 - ii. Set restrictions or rainy seasonal bans to the use of fertilizers near water bodies;
 - iii. Set requirements for proper storage of fertilizers (addressing distance from water bodies, packaging, waterproof storages, etc.);
 - iv. Enforce the maintenance of records of purchases by farmers of fertilizers;
 - v. Apply catch crops/ nitrogen fixing crops under specific conditions;
 - vi. Apply organic farming under specific conditions.
- c. Pesticides management, which may include the following measures:
 - i. Provide training to farmers on pesticides labelling instructions and when/ how to apply pesticides in line with good agricultural practices (GAP);
 - ii. Provide for marketing and sale of pesticides to professional organizations (conditional to training/ certification);
 - iii. Set targets and timetables for reduction of pesticides use;
 - iv. Conduct regular inspection of farmers' equipment;
 - v. Ban the use of pesticides through aircrafts, with strictly regulated exemptions;
 - vi. Monitor drinking water sources, protected areas and public spaces close to agricultural areas where pesticides are applied;
 - vii. Apply integrated pest management.
- d. Manure management (livestock breeding), which may include the following measures:
 - i. Apply adequate management techniques for cattle breeding, digestion and manure reuse;
 - ii. Apply BAT for large farms including anaerobic digestion and bio-energy production, followed by separation of liquid and solid fractions;
 - iii. Apply aerobic digestion for liquids, followed by evaporation lagoons or usage for soil improvement.

12. With regards to the Regional Plan on Aquaculture [Nutrients] Management, the meeting agreed as follows:

- a. The meeting recommended that the new Regional Plan should take into account carrying capacity criteria of nutrients during the process for site selection, in addition to the varying effects of the different kinds of aquaculture on the marine environment;
- b. The meeting stressed the importance of controlling discharges from off-shore aquaculture based on regular monitoring of nutrients, contaminants, and emerging pollutants in sediments and the water column;
- c. The meeting further stressed the importance of conducting impact assessments as part of the permitting and authorization process for aquaculture activities including fish farms and hatcheries.

13. Finally, the meeting reviewed the revised working document UNEP/MED WG.454/3, and agreed on the final elements of the Regional Plan on Aquaculture [Nutrients] Management as follows:

- a. Minimization of impacts from onshore (including hatcheries) aquaculture, which may include the following measures:
 - i. Alternative efficient feeding practices.
 - ii. Provide for installation of settlement tanks (to collect suspended soils) and filters (drum filters);
 - iii. Optimize discharge systems, including:
 - Development of submarine pipeline systems.

- Definition of appropriate sea depth.
 - Installment of diffusers at the end of the pipelines and pumps.
 - Improved abatement measures for the collection of oily residue.
- iv. Establish monitoring programmes both in discharge areas and on the end of the settlement tank;
 - v. Establish recirculating closed systems (allowing for cleaning and recycling of the same water);
 - vi. Plant blue catch crops (e.g. mussels);
 - vii. Reuse/recycle of water for irrigation purposes (possible treatment requirements).
- b. Minimize impacts from offshore aquaculture, which may include the following measures:
- i. Establish criteria to be met in the selection of aquaculture site, including carrying capacity, appropriate species, pollution baseline and Environmental Impact Assessment (where applicable);
 - ii. Apply Marine Spatial Planning for the identification of the appropriate zones for establishment of aquaculture plants;
 - iii. Implement permitting schemes setting operational conditions;
 - iv. Alternative efficient feeding practices (this shall be based on a study in the field);
 - v. Control discharges through monitoring:
 - Sediment: phosphorus, carbon and nitrogen content, redox potential, etc.
 - Water column: oxygen, nutrients (inorganic nitrogen and phosphorus), total nitrogen and phosphorus, chlorophyll a, trix index, etc.
 - vi. Establish Multitrophic Aquaculture Systems;
 - vii. Control escapes (for prevention of Invasive Alien Species introduction and diseases/viruses spread);
 - viii. Use new environmentally benign antifouling agents (TBT-free, preferably also copper free);
 - ix. Ensure regular movement of cages in aquaculture sites to avoid development of anoxic zones;
 - x. Promote alternative disposal/ re-use of offal.

14. With regards to the Regional Plan on Marine Litter Management in the Mediterranean the meeting agreed as follows:

- a. The meeting highlighted the importance of the existing provisions of the ML Regional Plan and requested from the MAP Secretariat to consider and benefit from the relevant global initiatives, including on plastics and circular economy in view of possible upgrade of the ML Regional Plan;
- b. The meeting requested from the Secretariat to consider adding new provisions regarding the ban of single-use items most found in the region for which alternatives exist; to promote and support environmental taxes and their implementation; and to include concrete targets with regards to plastic collection and recycling;
- c. The meeting further stressed the need to promote new technologies for the removal of litter and derelict or lost fish gear from the marine and coastal environment in an environmentally sound way;
- d. The meeting stressed the importance of reducing the use of plastic packaging, promoting public private partnerships, and for including specific provisions of marine litter in national regulations.

15. Finally, the meeting reviewed the revised working document UNEP/MED WG.454/3, and agreed on the final elements of the Regional Plan on Marine Litter Management as follows:
- a. Ban single use items most found in the Region for which alternatives exist;
 - b. Ensure higher rates of/set targets for plastic recycling and other waste items to avoid ending-up as marine litter in the marine and coastal environment;
 - c. Introduce environmental taxes, e.g. plastic tax on virgin plastic, extended producer responsibility schemes, refund schemes;
 - d. Promote new technologies for the removal of marine litter from the marine and coastal environment in an environmentally sound way, particularly the retrieval, recycling and reuse of ghost gears;
 - e. Strengthen sanctions in case of non-compliance with the respective national regulations;
 - f. Include in the MPA Management Plans stricter measures to combat marine litter and related monitoring;
 - g. Reduce packaging;
 - h. Promote voluntary agreements with industry at national and regional levels;
 - i. Strengthen measures related to SCP programmes to raise awareness and enhance education;
 - j. Introduce a concrete measure on microplastics reduction, e.g.:
 - i. Promote research and identification of the different sources of primary and secondary microplastics (industrial pellets and personal care products related micro litter particles, fibers from clothing).
 - ii. Ban on microplastics addition to cosmetics.
 - iii. Assess if primary and secondary microplastics are covered or not by legislation, and act, if appropriate, to influence the legal framework, or identify other necessary measures such as the promotion of voluntary commitment (e.g. Assess potential of certification schemes).
 - k. Set targets for plastic waste collection;
 - l. Investigate and promote with appropriate industries the use of Best Available Techniques (BAT) and Best Environmental Practice (BEP) to develop sustainable and cost-effective solutions to reduce and prevent sewage and storm water related waste and entering the marine environment, including micro particles as well as improving current management in waste water treatment plants.
16. With regards to the Regional Plan on Storm Water Management in the Mediterranean the meeting agreed as follows:
- a. The meeting highlighted the importance of developing green infrastructure (e.g. wetlands, retention ponds, etc.) for sustainable management of storm water;
 - b. The meeting stressed the importance of climate change impacts as well as floods and other extreme weather conditions in the development of storm water management plans and requested that those linkages are addressed in the Regional Plan;
 - c. The meeting recommended to provide clearer links between storm water management and risk management plans, and taking into account possible health risks and socioeconomic impacts;
- The meeting highlighted the need for regular maintenance of storm water collection networks including filtration systems to retain and prevent the pollution transported with the storm water.
17. Finally, the meeting reviewed the revised working document UNEP/MED WG.454/3 and agreed on the final elements of the Regional Plan on Storm Water Management as follows:

- a. Develop storm water management plans, including risk management plans and floodplain management. The geographical scope to coincide with urban zoning;
 - b. Establish separate collection systems for run-off water under specific conditions;
 - c. In case of combined collections system, install storm water treatment tanks which include decantation and filtering;
 - d. Promote green infrastructure for small medium cities, such as wetlands, retention ponds, recharge of aquifers, etc.;
 - e. Incorporate integrated coastal zone management (ICZM) plans into management schemes of storm water run-off or the other way around;
 - f. Set technical standards for drainage of storm water to outlets on the beach;
 - g. Locate land-based activities, including industrial installations and civil infrastructures such as municipal wastewater treatment plants and landfills, potentially discharging contaminated run-off or wastewater to waterways so as to minimize their discharges and to protect the quality of ground and surface water including rivers, streams, wetlands, estuaries and the marine environment; and
 - h. Undertake regular maintenance of storm water collection networks including filtration systems to retain and prevent the pollution transported with the storm water.
18. Recognizing the lack of a Decision to prepare a Regional Plan addressing industrial pollution, the meeting took note of the proposal of the Secretariat to review more in depth this issue, which will be presented to the MEDPOL Focal Point Meeting in order to fill this gap by:
- a. Developing ELVs for a number of sectors of industries most commonly found in the Mediterranean, as well as standards for their effluents that would allow their final treatment in the municipal wastewater treatment plants; and
 - b. Continuing the work for updating the list of priority contaminants already agreed by MED POL with strict emission limit values or banning/ phasing them out and promoting their substitution with safer environmental friendly alternatives.
19. With regards to the way forward in the development, negotiation and adoption of the six Regional Plans, the meeting noted that several approaches may be followed in view of their timely and differentiated development and negotiations.
20. The meeting recommended the Secretariat to follow a number of criteria such as clustering by theme, need for in-depth assessment that may differ from one Regional Plan to another, timing for implementation of the measures taking into account the MAP and SDG objectives up to 2030 to achieve/ maintain GES, and impact/ risk on the marine environment while making the proposal to the MED POL Focal Points Meeting for the timing of the preparation of each Regional Plan.
21. The meeting acknowledged the need for a strong involvement of local and regional expertise to show and benefit from best practices in the region for the preparation of the Regional Plans as well as the leadership of the Contracting Parties in this process.
22. The meeting agreed that the Secretariat will continue working on the elements of the six Regional Plans with the aim of presenting concrete proposals for the MEDPOL Focal Point Meeting in May 2019.
- d.

Appendix 2
French Version
Conclusions et Recommandations

Conclusions et recommandations

La 1^{ère} Réunion régionale d'experts sur les six Plans régionaux s'est déroulée les 20 et 21 novembre 2018 à Athènes (Grèce) à l'hôtel Stanley. La réunion a été organisée par l'ONU Environnement/PAM (Programme MEDPOL).

À la suite de ses délibérations, la réunion a conclu les points suivants :

Point 3 de l'Ordre du jour : Développement des Plans régionaux en vertu de l'Article 15 du Protocole « Tellurique » de la Convention de Barcelone

1. La réunion a salué le travail entrepris par le Secrétariat dans la préparation de la réunion, en particulier en ce qui concerne le document de travail UNEP/MED WG.454/3 sur les Principaux éléments pour la préparation des six Plans régionaux de réduction de la pollution.
2. La réunion a examiné les principaux éléments et la valeur ajoutée attendue des Plans régionaux. La réunion était globalement en accord avec les lignes générales proposées afin de garantir que ces Plans régionaux prennent pleinement en compte le statut de mise en œuvre du Protocole « Tellurique » et les Plans régionaux existants. La réunion a en outre souligné les avantages de la dynamique créée par les initiatives relatives à la pollution et au plastique aux niveaux mondial et régional ; les actions relatives au changement climatique et les approches coûts/bénéfices étant dûment prises en compte, ainsi que la gestion de la lutte et de la prévention de la pollution ; elle a également examiné l'approche sectorielle plutôt que les contaminants individuels, en soulignant l'application des meilleures techniques disponibles (MTD) et des meilleures pratiques environnementales (MPE), la consommation et la production durables (CPD) et l'efficacité des ressources et de l'énergie. Tout ceci en vue d'atteindre l'objectif global du Bon état environnemental (BEE) de la mer Méditerranée et de ses côtes. La réunion a également recommandé une référence plus concrète aux principes de l'économie circulaire dans l'approche du développement des Plans régionaux.
3. La réunion a approuvé la proposition du Secrétariat visant à élaborer les Plans régionaux en utilisant la structure des Plans régionaux déjà existants (à savoir, la définition des termes de référence, la portée et les objectifs, les mesures réglementaires et techniques proposées en plus des autres types de mesures comme l'élaboration de rapport et la mise en œuvre, le calendrier de mise en œuvre de rapports, le soutien à la mise en œuvre, l'entrée en vigueur et les annexes). La réunion a également recommandé de considérer les éléments de gouvernance, de communication et de sensibilisation comme faisant partie de la structure des nouveaux Plans régionaux.
4. La réunion a également pris note de la proposition visant à examiner la portée géographique de la mise en œuvre des six Plans régionaux conformément à la portée correspondante du Protocole « Tellurique », notant que certaines spécifications doivent être examinées individuellement pour chaque Plan régional au cours du processus de préparation, d'élaboration et de négociation des Plans régionaux individuels.

Point 4 de l'Ordre du jour : Principaux éléments des six Plans régionaux de réduction de la pollution

5. Suite à la présentation par le Secrétariat des principaux éléments des six Plans régionaux (stations de traitement des eaux usées municipales, gestion des boues d'épuration, gestion des éléments nutritifs de l'agriculture, gestion des éléments nutritifs de l'aquaculture, gestion des eaux pluviales urbaines et déchets marins), la réunion a fourni des contributions de fond, proposant des amendements aux mesures techniques présentées et suggérant des éléments supplémentaires.
6. En ce qui concerne le Plan régional sur le traitement des eaux usées municipales, la réunion a convenu de

ce qui suit :

- a. En ce qui concerne la taille des agglomérations de 2000 EH pour lesquelles les eaux usées doivent être collectées et traitées avant élimination (conformément au Plan régional existant sur la réduction de la DBO₅ concernant les eaux urbaines résiduaires), des préoccupations ont été exprimées concernant les coûts liés aux contraintes techniques. Il a été conclu que la taille de l'agglomération de 2000 EH doit être conservée, tout en permettant une flexibilité pour la priorisation du calendrier de mise en œuvre des mesures connexes concernant la taille de l'agglomération, la proximité de la mer et du littoral et la sensibilité du milieu récepteur,
 - b. Le nouveau Plan régional doit promouvoir, le cas échéant, d'éventuelles solutions basées sur la nature pour le traitement des eaux usées, en particulier en ce qui concerne les petites agglomérations. À cet égard, la réunion a demandé au Secrétariat d'entreprendre des activités de renforcement des capacités et de développer les lignes directrices respectives,
 - c. La réunion a demandé de ne pas uniquement prendre en compte les eaux usées industrielles dans le cadre des stations de traitement des eaux usées municipales, étant donné que les grandes installations industrielles sont conformes aux normes convenues, mais également les petites installations industrielles situées en zones urbaines,
 - d. La réunion a également recommandé d'examiner la question liée à l'infiltration et traitement de lixiviats, y compris des fosses septiques, dans les zones côtières, avec la possibilité de mettre en place de VLE connexes,
 - e. La réunion a exprimé de grandes préoccupations concernant la recharge des nappes aquifères par des eaux usées traitées. Il a été demandé que le Plan régional prévoie une surveillance des eaux usées traitées conformément aux normes de qualité adoptées, y compris le contrôle de la salinité,
 - f. La réunion a également abordé la nécessité d'envisager plusieurs scénarios possibles en ce qui concerne les variations saisonnières des eaux usées en raison de l'afflux de population pouvant entraîner de graves dysfonctionnements de la station de traitement des eaux usées et du réseau d'assainissement,
 - g. Eu égard à l'expérience acquise en Méditerranée concernant la réutilisation d'eaux usées traitées, la réunion a recommandé de promouvoir davantage le partage des meilleures pratiques par les Parties contractantes dans le cadre des activités futures.
7. La réunion a finalement examiné le document de travail révisé UNEP/MED WG.454/3 et a approuvé les éléments finaux du Plan régional pour les stations de traitement des eaux usées municipales comme suit :
- a. Réutiliser les eaux usées municipales traitées dans l'agriculture (récupérer les nutriments, le cas échéant),
 - b. Réutiliser/recycler les eaux usées traitées afin d'essayer d'apporter une solution au problème régional de la pénurie d'eau (par exemple, recharge des aquifères),
 - c. Fixer des normes de qualité appropriées pour la réutilisation de l'eau pour l'irrigation agricole, la recharge des aquifères et autres usages,
 - d. Appliquer les MTD et MPE, y compris des sources d'énergie renouvelable/alternative en exploitant des usines de traitement des eaux usées,
 - e. Promouvoir des solutions fondées sur la nature (par ex. des zones humides construites) dans des petites agglomérations, le cas échéant,
 - f. Fixer les valeurs limites d'émission (VLE) pour les substances prioritaires/nouveaux contaminants émergents et d'autres paramètres selon la sensibilité de l'environnement récepteur, le cas échéant,

- g. Fixer des VLE de prétraitement afin que les industries rejettent dans des systèmes de collecte leurs effluents qui peuvent être traités dans des usines de traitement des eaux usées municipales, en particulier pour les petites industries situées dans les zones urbaines,
 - h. Fixer un calendrier pour la mise en œuvre des technologies permettant d'atteindre les VLE adoptées.
8. En ce qui concerne le Plan régional sur la gestion des boues d'épuration, la réunion a convenu les éléments suivants :
 - a. Le recyclage/la réutilisation des boues traitées doit être considérés comme une option prioritaire pour la gestion des boues d'épuration,
 - b. La réunion a souligné que les boues d'épuration contaminées par des polluants émergents et des micro-plastiques devraient également être prises en compte dans le nouveau Plan régional,
 - c. La réunion a souligné le problème lié au stockage des boues et le besoin d'élaborer des conditions de stockage adéquates,
 - d. La réunion a ensuite examiné la pollution microbiologique des boues, notamment en ce qui concerne leur recyclage, et a recommandé que cette question soit intégrée dans le nouveau Plan régional.
9. La réunion finalement a examiné le document de travail révisé UNEP/MED WG.454/3 et a approuvé les éléments finaux du Plan régional sur la gestion des boues d'épuration comme suit :
 - a. Réduire les entrées de métaux lourds, de polluants organiques persistants et de polluants émergents, y compris les micro-plastiques dans le système de collecte, en prenant en considération les rejets des centres urbains, les rejets liés au ruissellement des eaux de pluie dans le système de collecte combiné et les rejets des centres industriels connectés aux eaux résiduaires municipales,
 - b. Prioriser les alternatives de gestion pour les boues d'épuration en vue de minimiser l'enfouissement et de le limiter aux cas dans lesquels les options suivantes ne sont pas réalisables :
 - Réutilisation/valorisation des boues d'épuration traitées/stabilisées comme engrais ou conditionneur de sol ;
 - Récupération d'énergie (incinération par exemple),
 - c. Fixer des VLE pour contaminants présents dans les boues pour diverses applications,
 - d. Prévoir des mesures visant toute la chaîne du traitement des boues, y compris la déshydratation, la stabilisation, la désinfection microbiologique et la récupération d'énergie,
 - e. Prévoir des mesures d'exécution, à savoir le contrôle, l'inspection et les sanctions,
 - f. Mettre en place des conditions pour le stockage temporaire/permanent des boues,
 - g. Prévoir des utilisations alternatives et l'élimination des boues.
10. En ce qui concerne le Plan régional sur la gestion des nutriments de l'agriculture, la réunion a convenu les éléments suivants :
 - a. La réunion a souligné les effets néfastes du ruissellement agricole sur l'environnement marin méditerranéen, soulignant le besoin de réduire l'usage d'engrais dans les zones agricoles irriguées par des eaux usées traitées,
 - b. La réunion a recommandé la promotion du compostage de fumier en tant qu'alternative à l'utilisation d'engrais. À cet égard, la réunion a noté que des pratiques intégrées d'élevage devaient être promues,
 - c. La réunion a en outre souligné l'importance de la promotion de pratiques appropriées en matière d'irrigation, particulièrement adaptées aux points chauds et zones sensibles,

- d. La réunion a conclu qu'une ligne directrice sur la gestion de l'agriculture [éléments nutritifs] peut être élaborée comme première étape avant l'introduction du nouveau Plan régional.
11. La réunion a finalement examiné le document de travail révisé UNEP/MED WG.454/3 et a approuvé les éléments finaux du Plan régional sur la gestion de l'agriculture [éléments nutritifs] comme suit :
- a. Minimiser/empêcher le ruissellement agricole, ce qui peut inclure les mesures suivantes :
 - i. Les exigences d'irrigation selon le type de plantes, la surface du sol, la géomorphologie et le climat,
 - ii. Appliquer des techniques d'irrigation MTD et MPE, y compris des systèmes d'irrigation efficaces (irrigation par goutte à goutte, capteurs d'humidité),
 - iii. Appliquer des zones tampons et des méthodes d'irrigation qui dépendent des modes de culture, de la surface des terres, de la géomorphologie et du climat (afin de minimiser les impacts du ruissellement sur les masses d'eau), ainsi que la transition vers des systèmes d'irrigation appropriés dans des zones irrigables d'un point de vue économique, en particulier dans les zones sensibles et les points chauds.
 - b. Gestion des engrais, ce qui peut inclure les mesures suivantes :
 - i. Établir des normes sur l'utilisation d'engrais en fonction du type de plante, des besoins en azote, des propriétés du sol, de la qualité et de la quantité d'eau d'irrigation et des conditions climatiques,
 - ii. Établir des restrictions ou des interdictions saisonnières pluvieuses à l'utilisation d'engrais à proximité de plans d'eau,
 - iii. Définir des exigences visant à un stockage approprié des engrais (distance par rapport aux plans d'eau, emballage, entreposages étanches, etc.)
 - iv. Imposer la tenue à jour des dossiers relatifs aux achats des engrais par les agriculteurs,
 - v. Appliquer les cultures dérobées/azotofixatrices dans des conditions spécifiques,
 - vi. Appliquer l'agriculture biologique dans des conditions spécifiques.
 - c. Gestion des pesticides, ce qui peut inclure les mesures suivantes :
 - i. Dispenser des formations aux agriculteurs sur les instructions figurant sur les étiquettes des pesticides et sur les périodes/méthodes d'application des pesticides, conformément aux bonnes pratiques agricoles (BPA),
 - ii. Prévoir la commercialisation et la vente de pesticides aux organisations professionnelles (subordonnées à une formation/certification),
 - iii. Fixer des cibles et établir des calendriers pour la réduction de l'utilisation des pesticides,
 - iv. Effectuer des inspections régulières des équipements des agriculteurs,
 - v. Interdire l'utilisation de pesticides épandus par avion, et prévoir des exemptions strictement réglementées,
 - vi. Surveiller les sources d'eau potable, les zones protégées et les espaces publics à proximité des zones agricoles où sont épandus des pesticides,
 - vii. Appliquer la lutte intégrée contre les ravageurs.
 - d. Gestion des fumiers (élevage du bétail), ce qui peut inclure les mesures suivantes :
 - i. Appliquer les techniques de gestion appropriées pour l'élevage, la digestion du bétail et la réutilisation des fumiers,
 - ii. Appliquer les MTD dans les grandes exploitations agricoles, y compris la digestion anaérobie et la production de bioénergie, suivies par la séparation des fractions liquides et solides,
 - iii. Appliquer la digestion aérobie pour les liquides, suivie par l'utilisation de bassins d'évaporation ou un usage visant à l'amélioration des sols.

12. En ce qui concerne le Plan régional sur la gestion de l'aquaculture [éléments nutritifs], la réunion a convenu les éléments suivants :
- a. La réunion a recommandé que le nouveau Plan régional prenne en compte le critère de capacité de charge des nutriments au cours du processus de sélection du site, en plus des effets variables des différents types d'aquaculture sur l'environnement marin,
 - b. La réunion a souligné l'importance du contrôle des évacuations de l'aquaculture offshore sur la base d'une surveillance régulière des nutriments, des contaminants et des polluants émergents dans les sédiments et la colonne d'eau,
 - c. La réunion a en outre souligné l'importance de la réalisation d'évaluations de l'impact dans le cadre du processus de délivrance de permis et d'autorisation pour les activités d'aquaculture, y compris les fermes piscicoles et les écloséries.
13. La réunion a finalement examiné le document de travail révisé UNEP/MED WG.454/3 et a approuvé les éléments finaux du Plan régional sur la gestion de l'aquaculture [éléments nutritifs] comme suit :
- a. Minimisation des impacts de l'aquaculture côtière (y compris des écloséries), ce qui peut inclure les mesures suivantes :
 - i. Pratiques d'alimentation alternatives efficaces,
 - ii. Prévoir l'installation de réservoirs de décantation (pour collecter les particules de sol en suspension) et de filtres (filtres à tambour), et
 - iii. Optimiser les systèmes d'évacuation, y compris :
 - Élaborer des systèmes de conduites sous-marines.
 - Définir une profondeur de mer appropriée.
 - Installer des diffuseurs à l'extrémité des conduites et des pompes.
 - Améliorer les mesures de réduction pour la collecte des résidus huileux.
 - iv. Établir des programmes de surveillance dans les zones de rejet et à l'extrémité du réservoir de décantation,
 - v. Établir des systèmes de recirculation de l'eau en circuit fermé (permettant de nettoyer et de recycler la même eau),
 - vi. Planter des cultures bleues (par exemple, des moules),
 - vii. Réutiliser/recycler l'eau à des fins d'irrigation (exigence possible en matière de traitement).
 - a. Minimisation des impacts de l'aquaculture offshore, ce qui peut inclure les mesures suivantes :
 - i. Établir des critères à respecter lors de la sélection de sites pour l'aquaculture, y compris la capacité de charge, les espèces appropriées, la ligne de base de pollution et l'étude d'impact sur l'environnement (le cas échéant),
 - ii. Appliquer la planification de l'espace marin pour l'identification des zones appropriées pour l'établissement de sites aquacoles,
 - iii. Mettre en œuvre des systèmes de permis établissant les conditions opérationnelles,
 - iv. Prévoir des pratiques alternatives et efficaces en matière d'alimentation (elles doivent être basées sur une étude de terrain),
 - v. Contrôler les rejets grâce un système de surveillance :
 - Sédiments : phosphore, teneur en carbone et en azote, potentiel redox, etc.
 - Colonne d'eau : oxygène, nutriments (azote et phosphore inorganiques), concentrations totales d'azote et de phosphore, chlorophylle a, indice TRIX, etc.
 - i. Établir des systèmes d'aquaculture multi-trophique,
 - ii. Contrôler les fuites (pour prévenir l'introduction d'espèces exotiques envahissantes et la propagation de maladies/virus),
 - iii. Utiliser les nouveaux agents antisalissures inoffensifs pour l'environnement (sans TBT et de

- préférence sans cuivre),
- iv. Assurer le mouvement régulier des cages dans les sites aquacoles pour éviter le développement de zones anoxiques,
- v. Promouvoir une élimination alternative/une réutilisation des abats.

14. En ce qui concerne le Plan régional sur la gestion des déchets marins en Méditerranée, la réunion a convenu les éléments suivants :

- a. La réunion a souligné l'importance des dispositions existantes du Plan régional sur les déchets marins et a demandé au Secrétariat d'examiner et de tirer profit des initiatives mondiales pertinentes, y compris concernant les plastiques et l'économie circulaire, en vue d'une éventuelle actualisation du Plan régional sur les déchets marins,
- b. La réunion a demandé au Secrétariat d'envisager la possibilité d'ajouter de nouvelles dispositions concernant l'interdiction des articles à usage unique les plus répandus dans la région, de promouvoir et de soutenir la mise en place et la mise en œuvre de taxes environnementales et d'inclure des cibles concrètes concernant la collecte et le recyclage de plastiques,
- c. La réunion a en outre souligné la nécessité de promouvoir de nouvelles technologies pour l'élimination des déchets de poisson et des déchets de pêche abandonnés ou perdus de l'environnement marin et côtier d'une manière écologiquement rationnelle,
- d. La réunion a souligné l'importance de la réduction de l'usage d'emballages plastiques, de la promotion de partenariats public-privé et de l'inclusion de certaines dispositions spécifiques relatives aux déchets marins dans les réglementations nationales.

15. La réunion a finalement examiné le document de travail révisé UNEP/MED WG.454/3 et a approuvé les éléments finaux du Plan régional sur la gestion des déchets marins en Méditerranée, comme suit :

- a. Interdire les articles à usage unique que l'on trouve le plus souvent dans la région et pour lesquels il existe des alternatives,
- b. Assurer des cibles plus ambitieuses/fixer des objectifs pour le recyclage du plastique et autres déchets afin d'éviter qu'ils ne finissent en déchets marins dans l'environnement marin et côtier,
- c. Introduire des taxes environnementales, par exemple taxe sur les matières plastiques vierges, régimes de responsabilité élargie des producteurs, systèmes de remboursement,
- d. Promouvoir les nouvelles technologies pour l'enlèvement des déchets marins de l'environnement marin et côtier d'une manière écologiquement rationnelle, en particulier la récupération, le recyclage et la réutilisation des équipements fantômes,
- e. Renforcer les sanctions en cas de non-respect des réglementations nationales respectives,
- f. Inclure dans les Plans de gestion des aires marines protégées (AMP) des mesures plus strictes afin de lutter contre les déchets marins et d'assurer la surveillance y afférente,
- g. Réduire les emballages,
- h. Promouvoir des accords volontaires avec l'industrie aux niveaux national et régional,
- i. Renforcer les mesures liées aux programmes de consommation et production durables (CPD) afin d'améliorer la sensibilisation et l'éducation,
- j. Introduire une mesure concrète sur la réduction des micro-plastiques, par exemple :
 - i. Promouvoir la recherche et l'identification des différentes sources de micro-plastiques primaires et secondaires (granulés industriels et particules de micro-litière liées aux produits de soins personnels, fibres de vêtements).
 - ii. Interdiction d'ajouter des micro-plastiques aux produits cosmétiques.
 - iii. Évaluer si les micro-plastiques primaires et secondaires sont couverts par la législation et agir, le cas échéant, pour influencer le cadre juridique, ou identifier d'autres mesures nécessaires, telles que la promotion de l'engagement volontaire (par exemple, évaluer le potentiel des

systemes de certification).

- a. Fixer des cibles pour la collecte des déchets plastiques,
- b. Examiner et promouvoir avec les industries concernées l'utilisation des MTD et des MPE afin de développer des solutions durables et économiques pour réduire et prévenir les déchets liés aux eaux d'égout et aux eaux pluviales, ainsi que les microparticules, à travers l'amélioration de la gestion actuelle des stations d'épuration.

16. En ce qui concerne le Plan régional sur la gestion des eaux pluviales de sources urbaines, la réunion a convenu les éléments suivants :

- a. La réunion a souligné l'importance des infrastructures vertes (par ex. zones humides, bassins de rétention, etc.) pour la gestion durable des eaux pluviales,
- b. La réunion a souligné l'importance des impacts du changement climatique ainsi que des inondations et autres conditions météorologiques extrêmes dans l'élaboration des plans de gestion des eaux pluviales et a demandé que ces liens soient pris en compte dans le Plan régional,
- c. La réunion a recommandé d'établir des liens plus clairs entre la gestion des eaux pluviales et les plans de gestion des risques, en tenant compte des risques éventuels pour la santé et des impacts socio-économiques,
- d. La réunion a mis en évidence la nécessité d'un entretien régulier des réseaux de collecte des eaux pluviales, y compris des systèmes de filtration, afin de retenir et de prévenir la pollution transportée par les eaux pluviales.

17. La réunion a finalement examiné le document de travail révisé UNEP/MED WG.454/3 et a approuvé les éléments finaux du Plan régional sur la gestion des eaux pluviales de sources urbaines, comme suit :

- a. Élaborer des plans de gestion des eaux pluviales, y compris des plans de gestion des risques et de gestion des plaines inondables. La portée géographique doit coïncider avec le zonage urbain,
- b. Établir des systèmes de collecte séparés pour les eaux de ruissellement dans des conditions spécifiques,
- c. Dans le cas d'un système de collecte combiné, installer des réservoirs de traitement des eaux pluviales comprenant des systèmes de décantation et de filtrage,
- d. Promouvoir des infrastructures vertes pour les villes petites et moyennes, telles que des zones humides, des bassins de rétention, le rechargement des aquifères, etc.,
- e. Intégrer les plans de gestion intégrée des zones côtières (GIZC) dans les programmes de gestion des eaux pluviales ou inversement,
- f. Établir des normes techniques pour le drainage des eaux pluviales vers des émissaires sur les plages,
- g. Localiser les activités telluriques, y compris les installations industrielles et les infrastructures civiles, telles que les stations d'épuration des eaux usées municipales et les décharges, susceptibles de rejeter des eaux de ruissellement ou des eaux usées contaminées dans les cours d'eau afin de minimiser leurs rejets et de protéger la qualité des eaux souterraines et de surface, y compris les rivières, les ruisseaux, les zones humides, les estuaires et l'environnement marin,
- h. Entreprendre l'entretien régulier des réseaux de collecte des eaux pluviales, y compris des systèmes de filtration, afin de retenir et de prévenir la pollution transportée par les eaux pluviales.

18. Reconnaissant l'absence de décision concernant la préparation d'un plan régional de lutte contre la pollution industrielle, la réunion a pris note de la proposition du Secrétariat d'examiner plus en profondeur cette question, qui sera présentée à la Réunion des Points focaux du MEDPOL afin de combler cette

lacune en :

- a. Élaborant des VLE pour un certain nombre de secteurs industriels fréquemment présents en Méditerranée, ainsi que des normes pour leurs effluents qui permettraient leur traitement final dans les stations d'épuration municipales,
- b. Poursuivant le travail de mise à jour de la liste des contaminants prioritaires, déjà approuvée par le MEDPOL, avec des VLE strictes ou interdire/éliminer ces contaminants progressivement et promouvoir leur substitution par des alternatives plus sûres et respectueuses de l'environnement.

19. En ce qui concerne la voie à suivre pour le développement, la négociation et l'adoption des six Plans régionaux, la réunion a noté que plusieurs approches pouvaient être suivies en vue d'établir les priorités pour leur développement et conduire les négociations en temps voulu et différencié.
20. La réunion a recommandé au Secrétariat de suivre un certain nombre de critères tels que le regroupement par thème, la nécessité d'une évaluation approfondie pouvant varier d'un Plan régional à l'autre, le délai de mise en œuvre des mesures prenant en compte les objectifs PAM et ODD à l'horizon 2030 en vue d'atteindre/maintenir le BEE et limiter l'impact/le risque sur le milieu marin, tout en soumettant la proposition à la Réunion des Points focaux du MEDPOL sur le calendrier de préparation de chaque plan régional.
21. La réunion a reconnu la nécessité d'une forte implication des experts locaux et régionaux pour promouvoir et bénéficier des meilleures pratiques en vigueur dans la région pour la préparation des Plans régionaux, ainsi que le leadership des Parties contractantes dans ce processus.
22. La réunion a convenu que le Secrétariat poursuivra son travail sur les éléments des six Plans régionaux en vue de présenter des propositions concrètes lors de la Réunion des Points focaux du MEDPOL en mai 2019.