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**ENVIRONMENT PROGRAMME**
**MEDITERRANEAN ACTION PLAN**

17 May 2021
Original: English

Meeting of the MED POL Focal Points

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

**Agenda item 5: Updates of the annexes of the pollution-related protocols**

# Report of the Meeting of the Working Group of Experts on Updating the Annexes to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources of the Barcelona Convention



UNEP/MAP
Athens, 2021

UNITED NATIONS

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**ENVIRONMENT PROGRAMME**
**MEDITERRANEAN ACTION PLAN**

22 February 2021
Original: English

Meeting of the Working Group of Experts on Updating the Annexes to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources of the Barcelona Convention

Meeting held by videoconference, 11 December 2020

# Report of the Meeting



UNEP/MAP
Athens, 2021

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## Introduction

1. The 21st Ordinary Meeting of the Contracting Parties (COP-21) to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols (Naples, Italy, 2-5 December 2019) adopted Decision IG.24/10 which called for updating of the Annexes to the LBS and Dumping Protocols of the Barcelona Convention.

2. In line with this mandate, the meeting reviewed the proposals developed by the UNEP/MAP Secretariat (MED POL Programme) for updating the annexes of the LBS Protocol for the consideration of the Meeting of the MEDPOL Focal Points planned in May 2021.

3. The meeting was attended by representatives from the following Contracting Parties: Bosnia and Herzegovina, Croatia, Cyprus, Egypt, European Union, France, Greece, Israel, Italy, Malta, Morocco, Montenegro, Slovenia, Spain, Tunisia and Turkey.

4. The United Nations Environment Programme (UNEP), including the Mediterranean Action Plan/ Barcelona Convention Secretariat (UNEP/MAP) were also represented, along with the following Mediterranean Action Plan Components: the Mediterranean Pollution Assessment and Control Programme (MED POL) and the Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC).

5. The following United Nations bodies, specialized agencies, convention secretariats and intergovernmental organizations were represented: The United Nations Economic and Social Commission for Western Asia (ECSWA), as well as the European Environment Agency (EEA).

6. The following non-governmental organizations and other institutions were represented: The Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE) and the Mohamad VI Foundation for Environmental Protection.

7. The full list of participants is attached as Annex I to the present report.

## Agenda item 1: Opening of the Meeting

8. The Meeting was opened at 10:00 AM (EEST) on Friday 11 December 2020 by Ms. Tatjana Hema, the Deputy Coordinator of the United Nations Environment Programme/Mediterranean Action Plan - Barcelona Convention. In her opening remarks, Ms. Hema underlined the importance of the LBS Protocol, as one of the most important regulatory regional instruments of the Barcelona Convention; and its innovative and forward looking dimensions providing for timely negotiation of up-to-date legally binding measures to combat and prevent marine pollution. She referred to COP Decision IG.24/10 regarding the update of the LBS Protocol Annexes, endorsed by COP21, Naples, Italy, as an important mandate to keep up-to-date the Protocol itself for better taking into account the relevant pressures, sectors and emerging pollutants in the context of Sustainable Development Goals and relevant regional and global developments. She underlined the work undertaken to date, summarizing the long process including initial reflections since 2017 that culminated with the mandate given in 2019 by COP21 and expected to be concluded successfully with a pertinent and consensual proposal for the consideration of COP22. In this context, she thanked all participants for attending this virtual meeting of the Working Group, considering it as an important milestone for delivering this important COP21 mandate. She also informed the meeting of ongoing developments at strategic level in UNEP/MAP-Barcelona Convention Secretariat such as the preparation of the UNEP/MAP Midterm Strategy; preparation of six new Regional Plans under Article 15 of the LBS Protocol; update on the Med SOx ECA, as well as update on the Mediterranean Strategy on Pollution from Ships (2022-2031) and its Action Plan.

**Agenda item 2: Organizational Matters**

*a) Rules of Procedure for the Rules for the Meeting of the Working Group of Experts on Updating the Annexes to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources of the Barcelona Convention*

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 (UNEP/IG.43/6, Annex XI) was applied mutatis mutandis to the 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:

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| Chair: | Mr. Rani Amir, Israel |
| Vice-Chair: | Ms. Asli Topalak, Turkey |
| Vice-Chair: | Mr. Mohammed El Bouch, Morocco |
| Vice-Chair: | Mme. Ines Houarbi Ben Salah, Tunisia |
| Rapporteur: | Ms. Ivana Mitrovic, Montenegro |

*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.485/1 and annotated in the present document (UNEP/MED WG.485/2) was reviewed and proposed for adoption by the Meeting including the timetable. The agenda as approved by the Meeting is contained in Annex II to this report.

*d) Organization of Work*

12. The discussions were held in three plenary sessions from 10:00 to 12:00; 13:00 to 15:00 and 15:30-17:30 during the one-day Meeting.

13. Simultaneous interpretation in English and French were available for the three sessions. All documentation was provided in English and French. Participants were encouraged to download the documentation on their computers in advance of the session.

14. The meeting addressed all agenda items and closed at 17:30 on 11 December 2020 after adopting its Conclusions and Recommendations.

**Agenda item 3: Review of proposed updates of the annexes**

a) Annex I: Elements to be taken into account in the preparation of action plan, programmes and measure for the elimination of pollution form land0based sources and activities.
b) Annex II: Elements to be taken into account in the issue of the authorizations for discharges of wastes.
c) Annex III: Conditions of application to pollution transported through the atmosphere.
d) Annex IV: Criteria for the definition of best available techniques and best environmental practice

15. Under this agenda item, Erol Cavus, Programme Officer, UNEP/MAP-MED POL, made a short presentation highlighting the work undertaken to align to the extent possible the content of the

Annexes with the most recent development at global and regional levels as presented in document UNEP/MED WG.485/3 on the updating of the Annexes to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources of the Barcelona Convention.

16. Several participants took the floor to address the proposed updates in Annex I and recommended the inclusion of additional activities /sectors to fully capture the releases from all point sources. Some participants proposed and or raised questions regarding the inclusion in Annex I of some sea-based activities such as cruise shipping; offshore platforms; etc. In response, the Deputy Coordinator clarified that an effort was made to avoid overlapping with the work under the Prevention and Emergency Protocol (including MARPOL Convention) and other Protocols of the Barcelona Convention. She informed the meeting that Annex I is about sectors for which national or regional plans are to be prepared. In the original proposal, the Secretariat included some sea-based activities due to the considerable impacts they may have on land. She explained that these impacts cannot be ignored as they require both prevention and management measures (marine litter, waste, etc.), noting the importance for considering sea-land interaction in the national and regional plans measures to be updated/formulated as appropriate, while ensuring coherence and avoiding overlap with the MARPOL Convention. She emphasized that this is in line with ICZM Protocol principles and above all ecosystem approach.

17. During the discussions, the growing sector of cruise ship activities was underlined within the tourism sector. This sector was recommended for inclusion to the Annex I. The inclusion of offshore oil and gas platforms was not considered. There was a proposal to clarify the status of the “industrial zones” which are agglomerations of several facilities located in confined zones in several countries. Considering the growing water demand in the Mediterranean, the meeting stressed the need to clearly define these activities on its own and to include the desalination plants in Annex I, as a sector of activity. So far, the management of desalination activities under the LBS Protocol was undertaken under the category of management of similar activities. Moreover, a proposal was made for including several pharmaceutical compounds (and CEC and ECP) under the categories of substances. A request was made to the Secretariat to examine their status with the aim to submit this issue for the consideration of the MEDPOL Focal Points Meeting. A Contracting Party recommended to share the final list of sources and activities/ sectors and substances with the CorMon on Pollution Monitoring in relation to further possible update of the list of IMAP mandatory contaminants in the future.

18. Several participants welcomed the proposals to update Annex II to the LBS Protocol (Elements to be taken into account in the issue of the authorizations for discharges of wastes). The meeting discussed the issues related to “underwater noise”, “light pollution”, “acidification”, “hydrographic changes” and their potential inclusions to Annex II. For underwater noise, there was agreement in principle, but the Secretariat was requested to make further analyses on issue. Regarding “light pollution”, “acidification” and “hydrographic changes”, the Secretariat was also requested to conduct research and provide additional information to the Meeting of the MED POL Focal Points.

19. UNEP/MAP MEDPOL Programme Officer briefly explained the potential updates proposal to Annex IV as presented in document number UNEP/MED WG.485/3. The Deputy Coordinator pointed out the great opportunities that will be provided by the update of this Annex for orienting UNEP/MAP’s work towards prevention, through the use of BAT and BEP, promoting sustainable production and consumption and circular economy principles. The meeting agreed on the proposal to include a newly proposed “Part C” to the Annex IV; however, the Secretariat was requested to cross-check and avoid duplications and possible overlapping with Part A under the same Annex.

20. Mr. Enrique Villamore, the Director of UNEP/MAP-SCP/RAC made a proposal pertinent to Annex IV regarding the updated definitions of BAT and BEP aiming to address circular economy approaches of products and services; use and re-use of products and materials; e-design; as well as regenerating natural systems. Several participants acknowledged the added value of SCP/RAC proposal; and inquired about additional time for their consideration. The Deputy Coordinator supporting the discussions on this subject, clarified that the Secretariat would review the text again,

MED POL and SCP/RAC teams will ensure full consistency and lack of any overlapping issues. The outcome of this review and suggested texts will be brought to the attention of the MED POL Focal Points for final consideration.

**Agenda item 4: Any other Business**

8. Under this Agenda item, no participants raised any other business related to the subject of the Meeting.

**Agenda item 5: Conclusions and Recommendations**

9. The Meeting reviewed and adopted the conclusions and recommendations as prepared by the Rapporteur and appended to this Meeting Report as Annex III.

**Agenda item 6: Closure of the Meeting**

10. The Chair closed the Meeting at 17:30 hours on Friday 11 December 2020.

**Annex I**
**List of Participants**

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

| | |
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**Annex II**
**Agenda of the Meeting**

# Agenda

**Agenda item 1:** Opening of the Meeting

**Agenda item 2:** Organizational Matters

**Agenda item 3:** Review of proposed updates of the annexes

a) Annex I: Elements to be taken into account in the preparation of action plan, programmes and measure for the elimination of pollution form land0based sources and activities.

b) Annex II: Elements to be taken into account in the issue of the authorizations for discharges of wastes.

c) Annex III: Conditions of application to pollution transported through the atmosphere.

d) Annex IV: Criteria for the definition of best available techniques and best environmental practice

**Agenda item 4:** Any other business

**Agenda item 5:** Conclusions and recommendations

**Agenda item 6:** Closure of the Meeting

**Annex III**
**Conclusions and Recommendations**

# Conclusions and Recommendations

## Introduction

On 11 December 2020, the Meeting of the Working Group of Experts on Updating the Annexes to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources of the Barcelona Convention was held by videoconference. The meeting was organized by UNEP/MAP Secretariat (MED POL Programme).

Further to its deliberations, the Meeting reached the following conclusions:

1. The Meeting reviewed and recommended the proposed updates of the Annexes to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources as revised and contained in the Annex to this report.

2. The Meeting concurred with the proposed updates, further to specific revisions and modifications with footnotes detailing actions to be taken by the Secretariat for the preparation of the final version for the consideration of the MED POL Focal Points Meeting, planned in May 2021.

**Appendix 1**

**Updated Annexes to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources of the Barcelona Convention**

# LAND-BASED SOURCES (LBS) PROTOCOL

## ANNEX I

## ELEMENTS TO BE TAKEN INTO ACCOUNT IN THE PREPARATION OF ACTION PLANS, PROGRAMMES AND MEASURES FOR THE ELIMINATION OF POLLUTION FROM LAND-BASED SOURCES AND ACTIVITIES

This annex contains elements which will be taken into account in the preparation of action plans, programmes and measures for the elimination of pollution from land-based sources and activities referred to in articles 5, 7 and 15 of this Protocol.

Such action plans, programmes and measures will aim to cover the sectors of activity listed in section A and also cover the groups of substances enumerated in section C, selected on the basis of the characteristics listed in section B of the present annex.

Priorities for action should be established by the Parties, on the basis of the relative importance of their impact on public health, the environment and socio-economic and cultural conditions. Such programmes should cover point sources, diffuse sources and atmospheric deposition.
In preparing action plans, programmes and measures, the Parties, in conformity with the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, adopted in Washington, D.C. in 1995, will give priority to substances that are toxic, persistent and liable to bioaccumulate, in particular to persistent organic pollutants (POPs), as well as to wastewater treatment and management.

### A. SECTORS OF ACTIVITY

The following sectors of activity (not listed in order of priority) will 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:

**1.** Energy production;
**2.** Fertilizer production;
**3.** Production and formulation of biocides;
**4.** The pharmaceutical industry;
**5.** Petroleum refining;
**6.** The paper, paper-pulp and wood production and processing industry;
**7.** Cement production;
**8.** The tanning and dressing industry including leather dyeing and finishing;
**9.** The metal industry including thermal processes in the metallurgical industry;
**10.** Mining and quarrying;
**11.** The shipbuilding and repairing industry;
**12.** Harbour operations;
**13.** The textile industry including textile pre-treatment, dyeing and finishing;
**14.** The electronic industry;
**15.** The recycling industry;
**16.** Other sectors of the organic chemical industry;
**17.** Other sectors of the inorganic chemical industry;
**18.** Tourism and leisure activities and infrastructure, including cruise shipping;
**19.** Agriculture;

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

## B. CHARACTERISTICS OF SUBSTANCES IN THE ENVIRONMENT

For the preparation of action plans, programmes and measures, the Parties should take into account the characteristics listed below:
**1.** Persistence;
**2.** Toxicity or other noxious properties (e.g. carcinogenicity, mutagenicity, teratogenicity);
**3.** Bioaccumulation;
**4.** Radioactivity;
**5.** The ratio between observed concentrations and no observed effect concentrations (NOEC);
**6.** The risk of eutrophication of anthropogenic origin;
**7.** Health effects and risks;
**8.** Transboundary significance;
**9.** The risk of undesirable changes in the marine ecosystem and irreversibility or durability of effects, in particular:

a) adverse impacts on species composition and spatial and temporal variation per species/population, including distribution, abundance, and/or biomass, fecundity, survival and mortality/injury rates and behavior
b) adverse impacts on habitats characteristics;

**10.** Interference with the sustainable exploitation of living resources or with other legitimate uses of the sea;
**11.** Effects on the taste and/or smell of marine products for human consumption;
**12.** Effects on the smell, colour, transparency or other characteristics of seawater;
**13.** Distribution pattern (i.e. quantities involved, use patterns and probability of reaching the marine environment);
**14.** Potential for long-range environmental transport.

## C. CATEGORIES OF SUBSTANCES [1]

The following categories of substances and sources of pollution will serve as guidance in the preparation of action plans, programmes and measures:

[1] A proposal was made to recommend pharmaceutical compounds (and CEC and ECP). Secretariat will include as a reference to inform MED POL FP meeting for their consideration

**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, Toxaphene; Polychlorinated Biphenyls (PCBs), Polychlorinated dibenzodioxins (PCDDs), Polychlorinated dibenzofurans (PCDFs), endosulfan and its related isomers, hexachlorocyclohexane, Diethylhexylphthalate (DEHP), Chlordecone, Hexabromobiphenyl, Hexabromodiphenyl ether and heptabromodiphenyl ether, Lindane, Pentachlorobenzene, Tetrabromodiphenyl ether and pentabromodiphenyl ether, Perfluorooctane sulfonic acid and its salts, and perfluorooctane sulfonyl fluoride, hexabromocyclododecane (HBCD), hexachlorobutadiene, pentachlorophenol and its salts and esters, and polychlorinated naphthalenes;
**2.** Total suspended particulates, total Volatile Organic Compounds (VOC), Nitrogen oxides, NH3, sulfur oxide;
**3.** Organophosphorus compounds and silicon substances which may form such compounds in the marine environment;
**4.** Organotin compounds and substances which may form such compounds in the marine environment;
**5.** Polycyclic aromatic hydrocarbons;
**6.** Heavy metals and their compounds. Priority given to chromium, cadmium, lead, mercury, nickel, organic tin compounds, organic mercury compounds and organic lead compounds;
**7.** Used lubricating oils;
**8.** 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;
**9.** Biocides and their derivatives;
**10.** Pathogenic microorganisms;
**11.** Crude oils and hydrocarbons of petroleum origin;
**12.** Cyanides and fluorides;
**13.** Non-biodegradable detergents and other nonbiodegradable surface-active substances;
**14.** Compounds of nitrogen and phosphorus and other substances which may cause eutrophication, including biodegradable substances [expressed as Biological Oxygen Demand (BOD) or Chemical Oxygen Demand (COD) or Total Organic Carbon (TOC), Total Nitrogen and Total Phosphorus];
**15.** Litter (any persistent manufactured or processed solid material which is discarded, disposed of, or abandoned in the marine and coastal environment) including plastics, microplastic and micro-sized litter;
**16.** Thermal discharges and input of other forms of energy;
**17.** Acid or alkaline compounds which may impair the quality of water;
**18.** Non-toxic substances that have an adverse effect on the oxygen content of the marine environment;
**19.** Non-toxic substances that may interfere with any legitimate use of the sea;
**20.** Non-toxic substances that may have adverse effects on the physical or chemical characteristics of seawater.
**21.** Brine;
**22.** Phenolic compounds, brominated flame retardants, polycyclic aromatic hydrocarbons and short chain chlorinated parafins;
**23.** Chemicals used for the preservation and/or treatment of wood, timber, wood pulp, cellulose, paper, hides and textiles.

# LAND-BASED SOURCES (LBS) PROTOCOL

## ANNEX II

## ELEMENTS TO BE TAKEN INTO ACCOUNT IN THE ISSUE OF THE AUTHORIZATIONS FOR DISCHARGES OF WASTES

With a view to the issue of an authorization for the discharges of wastes containing substances referred to in article 6 to this Protocol, particular account will be taken, as the case may be, of the following factors:

### A. CHARACTERISTICS AND COMPOSITION OF THE DISCHARGES

**1.** Type and size of point or diffuse source (e.g. industrial process).
**2.** Type of discharges (e.g. origin, average composition).
**3.** State of waste (e.g. solid, liquid, sludge, slurry).
**4.** Total amount (volume discharged, e.g. per year).
**5.** Discharge pattern (continuous, intermittent, seasonally variable, etc.).
**6.** Concentrations with respect to relevant constituents of substances listed in annex I and of other substances as appropriate.
**7.** Physical, chemical and biochemical properties of the waste discharges.

### B. CHARACTERISTICS OF DISCHARGE CONSTITUENTS WITH RESPECT TO THEIR HARMFULNESS

**1.** Persistence (physical, chemical, biological) in the marine environment.
**2.** Toxicity and other harmful effects.
**3.** Accumulation in biological materials or sediments.
**4.** Biochemical transformation producing harmful compounds.
**5.** Adverse effects on the oxygen content and balance.
**6.** Susceptibility to physical, chemical and biochemical changes and interaction in the aquatic environment with other sea-water constituents which may produce harmful biological or other effects on any of the uses listed in section E below.
**7.** All other characteristics as listed in annex I, section B.

### C. CHARACTERISTICS OF DISCHARGE SITE AND RECEIVING ENVIRONMENT

**1.** Hydrographic, meteorological, geological and topographical characteristics of the coastal area.
**2.** Location and type of the discharge (outfall, canal outlet, etc.) and its relation to other areas (such as amenity areas, spawning, nursery, and fishing areas, shellfish grounds) and other discharges.
**3.** Initial dilution achieved at the point of discharge into the receiving environment.
**4.** Dispersion characteristics such as effects of currents, tides and wind on horizontal transport and vertical mixing.
**5.** Receiving water characteristics with respect to physical, chemical, biological and ecological conditions in the discharge area, as well as the ecosystem functions and processes, in particular temperature, hydrology, bathymetry, turbidity, transparency, sound, salinity, nutrients, organic carbon, chlorophyll, dissolved gases, acidity (pH), links between species of marine birds, mammals, reptiles, fish and cephalopods and habitats, pelagic-benthic community shifts and productivity.
**6.** Capacity of the receiving marine environment to receive waste discharges without undesirable effects.

**D. AVAILABILITY OF WASTE TECHNOLOGIES**

The methods of waste reduction and discharge for industrial effluents as well as domestic sewage should be selected taking into account the availability and feasibility of:

(a) Alternative treatment processes;

(b) Re-use or elimination methods;

(c) On-land disposal alternatives;

(d) Appropriate low-waste technologies.

**E. POTENTIAL IMPAIRMENT OF MARINE ECOSYSTEMS AND SEA-WATER USES**

**1.** Effects on human health through pollution impact on:

(a) Edible marine organisms extraction and cultivation of living resources;

(b) Bathing waters;

(c) Aesthetics including color and odor;

**2.** Effects on marine ecosystems including food webs, in particular living resources, endangered species and critical habitats.

**[**3. (1) Underwater noise. [2]

2. (1') Light pollution[3]

2. (2) Acidification

2. (3) Hydrographic changes**]**

**3.** Physical restructuring of rivers, coastline or seabed

**4.** Effects on other legitimate uses of the sea.

[2] After a reservation by a CP, Secretariat to analyze these issues, particularly noise and to make proposals to next MED POL FP meeting.

[3] After a reservation by a CP, Secretariat to provide scientific grounds (further explanations) for of this type of pollution for the MED POL FP meeting.

# LAND-BASED SOURCES (LBS) PROTOCOL

## ANNEX III

### CONDITIONS OF APPLICATION TO POLLUTION TRANSPORTED THROUGH THE ATMOSPHERE

This annex defines the conditions of application of this Protocol to pollution from land-based sources transported by the atmosphere in terms of Article 4.1(b) are the following:

**1.** This Protocol shall apply to polluting discharges into the atmosphere under the following conditions:

(a) the discharged substance is or could be transported to the Mediterranean Sea Area under prevailing meteorological conditions;

(b) the input of the substance into the Mediterranean Sea Area is hazardous for the environment in relation to the quantities of the same substance reaching the Area by other means.

**2.** This Protocol shall also apply to polluting discharges into the atmosphere affecting the Mediterranean Sea Area from land-based sources within the territories of the Parties and from fixed manmade offshore structures, subject to the provisions of article 4.2 of this Protocol.

**3.** In the case of pollution of the Mediterranean Sea Area from land-based sources through the atmosphere, the provisions of articles 5 and 6 of this Protocol shall apply progressively to appropriate substances and sources listed in annex I to this Protocol as will be agreed by the Parties.

**4.** Subject to the conditions specified in paragraph 1 of this annex, the provisions of Article 7.1 of this Protocol shall also apply to:

(a) discharges - quantity and rate - of substances emitted to the atmosphere, on the basis of the information available to the Contracting Parties concerning the location and distribution of air pollution sources;

(b) the content of hazardous substances in fuel and raw materials;

(c) the efficiency of air pollution control technologies and more efficient manufacturing and fuel burning processes;

(d) the application of hazardous substances in agriculture and forestry.

**5.** The provisions of annex II to this Protocol shall apply to pollution through the atmosphere whenever appropriate. Air pollution monitoring and modelling using acceptable common emission factors and methodologies shall be carried out in the assessment of atmospheric deposition of substances, as well as in the compilation of inventories of quantities and rates of pollutant emissions into the atmosphere from land-based sources.

**6.** All Articles, including parts thereof to this Protocol not mentioned in paragraphs 1 to 5 above shall apply equally to pollution from land-based sources transported by the atmosphere wherever applicable and subject to the conditions specified in paragraph 1 of this Annex.

# LAND-BASED SOURCES (LBS) PROTOCOL

## ANNEX IV

### CRITERIA FOR THE DEFINITION OF BEST AVAILABLE TECHNIQUES AND BEST ENVIRONMENTAL PRACTICE

**[BATs and BEPs shall aim at addressing, to the extent possible, all stages of the cycle of products and services, keeping products and material in use, designing out waste and pollution as well as regenerating natural systems]**[4] [5] [6]

### A. BEST AVAILABLE TECHNIQUES [7]

1. The use of the best available techniques shall emphasize the use of non-waste technology, if available.[8] [The use of the best available techniques shall emphasize the use of techniques aiming at addressing all stages of life cycle of products and services keeping as long as possible the value of products, materials and resources in the economy, minimizing the generation of waste.][9]
2. The term "best available techniques" means the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In determining whether a set of processes, facilities and methods of operation constitute the best available techniques in general or individual cases, special consideration shall be given to:

(a) comparable processes, facilities or methods of operation which have recently been successfully tried out;
(b) technological advances and changes in scientific knowledge and understanding;
(c) the economic feasibility of such techniques;[10]
(d) time limits for installation in both new and existing plants;
(e) the nature, effects and volume of the discharges and emissions concerned;
(f) non-waste/low-waste technology;
(g) the precautionary principle;
(h) the commissioning dates for new or existing installations;
(i) the consumption and nature of raw materials used in the process and its energy efficiency;
(j) the need to prevent or reduce the overall impact of the releases to the environment and the risks to it;
(k) the need to prevent accidents and to minimize their consequences for the environment;
(l) the need to ensure occupational health and safety at workplaces.

**[(m) Use of less hazardous substances - Furthering of recovery and recycling of substances generated and used in the process and of waste]**[11]

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[4] Spain, France to evaluate these proposals and to check wording and to come back with contribution in next steps of process (MED POL FP meeting)
[5] EU, France wish for more time for consideration
[6] Secretariat wishes to evaluate proposals by SCP/RAC and needs time to ensure that all elements proposed are in coherence with the Annex IV of the Protocol and will share the (new) proposals in MED POL FP meeting for final approval of the Contracting Parties. The text is kept, only, for the Contracting Parties who wishes to study the proposals before MEDPOL FPs meeting.
[7] SCP-RAC to integrate SCP and Circular Economy Approaches. SCP/RAC recommends integration in Annex IV with BAT/BEP and life cycle and value chain involved with it. A proposal was made to update annex accordingly. SCP RAC requested to seek agreement of countries to do so.
[8] SCP RAC proposes to delete and replace text that follows
[9] Definition updated by SCP RAC
[10] Ensure streamlining between new point C with points a and b. Needs further reflection when text is finalized
[11] Proposal by SCP RAC for addition

3. It therefore follows that what is “best available techniques” for a particular process will change with time in the light of technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.
4. If the reduction of discharges and emissions resulting from the use of best available techniques does not lead to environmentally acceptable results, additional measures have to be applied.
5. “Techniques” include both the technology used and the way in which the installation is designed, built, maintained, operated and dismantled.

**B. BEST ENVIRONMENTAL PRACTICE**

6. The term “best environmental practice” means **[the application of the most appropriate combination of measures and strategies to prevent and control pollution, taking into account the entire life cycle of the products and services causing the environmental harm and the entire value chain involved with it.]** [12] the application of the most appropriate combination of environmental control measures and strategies. In making a selection for individual cases, at least the following graduated range of measures should be considered:

(a) the provision of information and education to the public and to users about the environmental consequences of choice of particular activities and choice of products, their use and ultimate disposal;
(b) the development and application of codes of good environmental practice which cover all aspects of the activity in the product’s life;
(c) the mandatory application of labels informing users of environmental risks related to a product, its use and ultimate disposal;
(d) saving resources, including energy;
(e) making collection and disposal systems available to the public;
(f) avoiding the use of hazardous substances or products and the generation of hazardous waste;
(g) recycling, recovery and re-use;
(h) the application of economic instruments to activities, products or groups of products;
(i) establishing a system of licensing, involving a range of restrictions or a ban.

7. In determining what combination of measures constitute best environmental practice, in general or individual cases, particular consideration should be given to:

(a) the environmental hazard of the product and its production, use and ultimate disposal;
(b) the avoidance or substitution by less polluting activities or substances;
(c) the scale of use;
(d) the potential environmental benefit or penalty of substitute materials or activities;
(e) advances and changes in scientific knowledge and understanding;
(f) time limits for implementation;
(g) social and economic implications;

**[¬ industrial symbiosis,**
**¬ sustainable business models**
**¬ eco-design**
**¬ eco-innovation**
**¬ green public procurement**
**¬ Servicizing**
**¬ eco-labelling**

[12] SCP RAC proposes to delete and replace text that follows

**¬ design for end-of-life solutions**
**¬ value chain collaboration]**[13]

(h) the precautionary principle.

8. It therefore follows that best environmental practice for a particular source will change with time in the light of technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.
9. If the reduction of inputs resulting from the use of best environmental practice does not lead to environmentally acceptable results, additional measures have to be applied and best environmental practice redefined.

## C. GENERAL PREVENTION MEASURES RELATING TO BEST AVAILABLE TECHNIQUES AND BEST ENVIRONMENTAL PRACTICES [14]

10. Priority should be given to the consideration of approaches to prevent the formation and release of the categories of substances listed in Annex I-C. Useful measures may include:

(a) The use of low-waste technology;
(b) The avoidance of use of hazardous substances;
(c) The promotion of the recovery and recycling of waste and of substances generated and used in a process;
(d) Replacement of feed materials which are persistent organic pollutants or where there is a direct link between the materials and releases of persistent organic pollutants from the source;
(e) Good housekeeping and preventive maintenance programmes;
(f) Improvements in waste management with the aim of the cessation of open and other uncontrolled burning of wastes, including the burning of landfill sites. When considering proposals to construct new waste disposal facilities, consideration should be given to alternatives such as activities to minimize the generation of municipal and medical waste, including resource recovery, reuse, recycling, waste separation and promoting products that generate less waste. Under this approach, public health concerns should be carefully considered;
(g) Minimization of these chemicals as contaminants in products;
(h) Avoiding elemental chlorine or chemicals generating elemental chlorine for bleaching.

[13] Secretariat to assess where these proposed tools would fit (under BAT or BEP) in chapter C and finalize for decision in MED POL FP meeting. Some duplication exists with Part C. Further deliberations are needed as explained in following footnote.
[14] Further to assessing SCP RAC inputs, Footnote (13) the Secretariat may propose, if need be, some fine adjustments for consistency, quality and synergies of approved text of the proposal in section C and this amended text will be presented to the MED POL FP meeting