UNITED NATIONS

EP

UNEP/MED WG.485/3

UNEP

UNITED NATIONS
ENVIRONMENT PROGRAMME
MEDITERRANEAN ACTION PLAN

12 November 2020
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

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 land-based 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.

Proposals for Updating the Annexes to the LBS Protocol

Note by the Secretariat

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 Land Based Sources and Activities (LBS Protocol) and Dumping Protocol of the Barcelona Convention.

The LBS Protocol, which was adopted in 1980 and amended in 1996, has four Annexes:

a) Annex I addresses elements to be taken into account in the preparation of Action Plans, Programmes of Measures for the elimination of pollution from land-based sources and activities, including key activity sectors, main characteristics of substances and main categories of substances and sources of pollution;
b) Annex II addresses elements that need to be taken into account in view of issuing an authorization for discharge of wastes containing substances subject to authorization or regulation pursuant to article 6 of the LBS Protocol;
c) Annex III defines the conditions of application of the LBS Protocol to pollution from land-based sources transported through the atmosphere, according to the Protocol Article 4.1.b; and
d) Annex IV sets out the criteria for the definition of Best Available Techniques (BAT) and Best Environmental Practices (BEP).

Work on updating the Annexes of the LBS Protocol was first initiated during the 2016-2017 biennium. A first report was produced highlighting the technical aspects that can be subject to a possible update. During the 2018-2019 biennium, the Secretariat developed concrete proposals on possible updates of the annexes of the LBS Protocol. Decision IG.24/10 of COP-21 requested the Secretariat to launch a formal process for updating these annexes by establishing a Working Group composed of experts designated by the Contracting Parties to review the annexes and make proposals for consideration of the 22nd Meeting of the Contracting Parties (COP-22) in December 2021.

In line with this mandate, the Secretariat developed proposals for updating the Annexes of the LBS Protocol, further to an in-depth review of proposals made during the 2018-2019 biennium, while introducing further amendments to better take into account the Ecosystem Approach with the aim to achieve and/or maintain Good Environmental Status (GES).

The proposed updates of the four annexes to the LBS Protocol are based on substantive technical review of various regional and global instruments with the aim to enhance synergies and further align provisions of relevance to the Mediterranean with the annexes to the LBS Protocol. This includes the provisions of the Marine Strategy Framework Directive (MSFD) and its amendments of Annex III;[1] the Stockholm, Minamata and Rotterdam Conventions; the relevant provisions under other Regional Seas Conventions; the developments under the Global Programme of Action (GPA); and the global intergovernmental mechanism aiming to prevent, reduce, control and/or eliminate marine degradation from land-based activities, including the Manilla Declaration.

Moreover, the proposed updates take into consideration analyses and review of sectors of activities conducted to identify and streamline any new/missing sectors identified in other regional regulations which are pertinent to the LBS Protocol mandate and its agreed prevailing nomenclature. This includes alignment with the European Pollutant Release and Transfer Register (E-PRTR)[2] activities in line with Annex I of the E-PRTR Regulation and its modifications approved in the Meeting of the MED POL Focal Points in Istanbul, Turkey (May 2019), as well as MED POL's PRTR Implementation Guide.[3]

[1] Commission Directive (EU) 2017/845 of 17 May 2017 amending Directive 2008/56/EC of the European Parliament and of the Council as regards the indicative lists of elements to be taken into account for the preparation of marine strategies
[2] European Pollutant Release and Transfer Register, Regulation (*EC*) Nº166/2006.
[3] UNEP/MED WG.473/12

The proposed updates also address missing sectoral activities in the Mediterranean in relevance to Annex I of the LBS Protocol. This includes sectors of activities identified by the Statistical Office of the European Union's (EUROSTAT) as updated in Statistical Classification of Economic Activities in the European Community, Rev. 2 (2008);[4] and the United Nations Statistic Division's International Recommendations for Industrial Statistics (2008).[5] This update ensures full alignment of the sectors of activities in Annex I of the LBS Protocol with Sustainable Development Goals 6, 9 and 12 under Agenda 2030[6] related to resilient infrastructure and sustainable industrialization.

In addition, the proposed updates address the list of priority substances developed by MED POL and adopted by COP18 (Istanbul, Turkey, 2013) in its Decision IG.21/3, with the aim to ensure a high level of streamlining of the adopted priority substance categories and Annex I of the LBS Protocol including possible amendments related to emerging substances for which additional scientific information are needed.

Finally, the proposed updates correspond to the provisions of the six new/updated Regional Plans currently under development. This includes updates on sectors of activity of Annex I reflecting those addressed by the technical measures of the Regional Plans; and amendments on categories of substances included also in Annex I corresponding to those for which emission limit values are defined. Moreover, updates on criteria for the definition of Best Available Techniques (BAT) and Best Environmental Practices (BEP) which are addressed in Annex IV of the LBS Protocol are also updated in line with BAT and BEP measures considered by the new Regional Plans.

The updated annexes to the LBS Protocol are presented herein to the Meeting of the Working Group of Experts for their consideration and review. For easy reference, the original text of the Protocol is shown in **black typeset**; proposed updates are placed inside brackets with a **[blue typeset]**. The reference documents further to which the updates were made are mentioned in footnotes placed appropriately after each update. The Secretariat will amend the update the annexes to the LBS Protocol in accordance with inputs from the Meeting of the Working Group with the aim to submit a final version of these annexes to the Meeting of the MED POL Focal Points planned tentatively in June 2021.

[4] EUROSTAT: RAMON - Reference and Management of Nomenclatures, https://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_REV2&StrLanguageCode=EN)

[5] UNSTAT, https://read.un-ilibrary.org/economic-and-social-development/international-recommendations-for-industrial-statistics-2008_677c08dd-en#page1

[6] https://unstats.un.org/sdgs/indicators/database/

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List of Abbreviations / Acronyms

BAT	Best Available Techniques
BEP	Best Environmental Practice
BOD	biochemical oxygen demand
COD	chemical oxygen demand
COP	Conference of the Parties
DDT	Dichloro-diphenyl-trichloroethane
EU	European Union
EUROSTAT	Statistical Office of the European Union
GES	Good Environmental Status
E-PRTR	European Pollutant Release and Transfer Register
HBCD	hexabromocyclododecane
LBS Protocol	Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities
MAP	Mediterranean Action Plan
MED POL	Programme for the Assessment and Control of Marine Pollution in the Mediterranean
MSFD	Marine Strategy Framework Directive
NACE	Nomenclature statistique des activités économiques dans la Communauté
PCBs	Polychlorobiphenyls
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
POP	Persistent Organic Pollutants
RSC	Regional Seas Conventions
SDG	Sustainable Development Goal
TOC	Total Organic Carbon
UNDESA	United Nations Department of Economic and Social Affairs
UNEP	United Nations Environment Programme
UNSTAT	United Nations Statistic Division

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, [~~and~~] paper-pulp [~~industry~~] [and wood production and processing industry]; [7]
7. Cement production;
8. The tanning [and dressing] industry [including leather dyeing and finishing]; [8]
9. The metal industry [including thermal processes in the metallurgical industry]; [9]
10. Mining [and quarrying]; [10]
11. The shipbuilding and repairing industry;
12. Harbour operations;
13. The textile industry;
14. The electronic industry;
15. The recycling industry;

[7] MSFD Annex III; E-PRTR, Annex I
[8] Stockholm Convention
[9] Stockholm Convention
[10] Minamata Convention

16. Other sectors of the organic chemical industry;
17. Other sectors of the inorganic chemical industry;
18. Tourism [and leisure activities and infrastructure];[11]
19. Agriculture;
20. Animal husbandry;
21. Food processing;
22. Aquaculture [and fishing];[12]
23. Treatment and disposal of hazardous wastes;
24. Treatment and disposal of [urban][13] wastewater;
25. Management [including treatment and disposal] of urban solid waste; [14]
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)]; [15]
30. Transport;
[**31.** Construction]; [16]
[**32.** Water Collection and Supply]. [17]

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]; [18]

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;

[11] MSFD Annex III
[12] Proposal by UNEP/MAP to capture discarded nets, fishing gear and discarded fish
[13] Proposal by UNEP/MAP for aligning the nomenclature with Regional Plan on Management of Municipal Wastewater
[14] MSFD Annex III
[15] MSFD Annex III
[16] EUROSTAT, UNDESA
[17] EUROSTAT, NACE
[18] MSFD Annex III,

13. Distribution pattern (i.e. quantities involved, use patterns and probability of reaching the marine environment);
[14. Potential for long-range environmental transport]. [19]

C. CATEGORIES OF SUBSTANCES

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

1. Organohalogen compounds and substances which may form such compounds in the marine environment. Priority will be given to Aldrin, Chlordane, DDT, Dieldrin, Dioxins and Furans, Endrin, Heptachlor, Hexachlorobenzene, Mirex, PCBs, [~~and~~] Toxaphene; [Polychlorinated Biphenyls (PCBs), Polychlorinated dibenzodioxins (PCDDs), Polychlorinated dibenzofurans (PCDFs), endosulfan and its related isomers, hexachlorocyclohexane, Diethylhexylphthalate (DEHP), [20] 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]; [21]
[1bis. Total suspended particulates, total Volatile Organic Compounds (VOC), Nitrogen oxides, NH3, sulfur oxide]; [22]
2. Organophosphorus compounds and [silicon] [23] substances which may form such compounds in the marine environment;
3. Organotin compounds and substances which may form such compounds in the marine environment;
4. Polycyclic aromatic hydrocarbons;
5. Heavy metals and their compounds. [Priority given to chromium, cadmium, lead, mercury, organic tin compounds, organic mercury compounds and organic lead compounds]; [24]
6. Used lubricating oils;
7. Radioactive substances, including their wastes, when their discharges do not comply with the principles of radiation protection as defined by the competent international organizations, taking into account the protection of the marine environment;
8. Biocides and their derivatives;
9. Pathogenic microorganisms;
10. Crude oils and hydrocarbons of petroleum origin;
11. Cyanides and fluorides;
12. Non-biodegradable detergents and other nonbiodegradable surface-active substances;
13. 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) [25], Total Nitrogen and Total Phosphorus]; [26]
14. Litter (any persistent manufactured or processed solid material which is discarded, disposed of, or abandoned in the marine and coastal environment) [including micro-sized litter]; [27]
15. Thermal discharges [and input of other forms of energy]; [28]

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[19] Stockholm Convention
[20] List of priority substances (COP18 Decision IG.21/3 Annex I)
[21] Stockholm Convention
[22] List of priority substances (COP18 Decision IG.21/3 Annex I)
[23] Regional Sea Conventions (RSC)
[24] List of priority substances (COP18 Decision IG.21/3 Annex I)
[25] E-PRTR
[26] List of priority substances (COP18 Decision IG.21/3 Annex I)
[27] MAP Ecological Objective 10 and MSFD Annex III
[28] MAP Ecological Objective 11 and MSFD Annex III

16. Acid or alkaline compounds which may impair the quality of water;
17. Non-toxic substances that have an adverse effect on the oxygen content of the marine environment;
18. Non-toxic substances that may interfere with any legitimate use of the sea;
19. Non-toxic substances that may have adverse effects on the physical or chemical characteristics of seawater.
[20. Brine]; [29]
[21. Phenolic compounds, brominated flame retardants, polycyclic aromatic hydrocarbons and short chain chlorinated parafins]; [30]
[22. Chemicals used for the preservation of wood, timber, wood pulp, cellulose, paper, hides and textiles]. [31]

[29] MSFD Annex III
[30] List of priority substances (COP18 Decision IG.21/3 Annex I)
[31] Regional Sea Conventions (RSC)

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, dissolved gases, acidity (pH), links between species of marine birds, mammals, reptiles, fish and cephalopods and habitats, pelagic-benthic community shifts and productivity]. [32]

[32] MAP Ecological Objectives 1, 5, 7, 9, 10 and 11. MSFD Annex III

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];[33]

(b) Bathing waters;

(c) Aesthetics [including color and odor];[34]

[(d) underwater noise].[35]

2. Effects on marine ecosystems [including food webs],[36] in particular living resources, endangered species and critical habitats.

[**2bis.** Physical restructuring of rivers, coastline or seabed];[37]

3. Effects on other legitimate uses of the sea.

[33] MSFD, Annex III

[34] Proposal by the Secretariat to further define the aesthetic features

[35] MASD, Annex III

[36] MSFD, Annex III

[37] MSFD, Annex III

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

A. BEST AVAILABLE TECHNIQUES

1. The use of the best available techniques shall emphasize the use of non-waste technology, if available.
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;
(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 to a minimum 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.**]** [38]

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 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;

[38] Stockholm Convention and Regional Seas Conventions.

(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;
[(h) the precautionary principle.] [39]

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

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.**]** [40]

[39] Regional Seas Conventions
[40] Stockholm Convention