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## I- INTRODUCTION

The Strategic Action Plan (SAP MED) consists of 33 targets covering the sectors of urban environment (municipal sewage, solid waste and air pollution), industrial development and physical alterations and destruction of habitats. Substances targeted in the SAP MED include toxic, persistent and liable to bioaccumulate, heavy metals, organohalogenes, radioactive substances, nutrients and suspended solids, and hazardous wastes. Targets and activities are of national or regional, and of legal, institutional or technical nature.

In 2005-2006, the Contracting Parties to the Barcelona Convention elaborated 21 National Action Plans (NAP) following the respective guidelines agreed by the Contracting Parties in 2003 and specified key actions (interventions of a policy&regulatory nature as well as concrete investments in the field of pollution reduction), the timetable for their implementation and their cost. Measures included legal, institutional and technical targets and activities to be accomplished by 2010 and 2015.

To track pollution reduction progress and hot spot elimination, a reporting system was also established and is operational since 2003 through the establishment and submission on a 2 and 5-year basis, of pollutant loads per source for a considerable number of pollutants (National Baseline Budget system - NBB).

Twelve years after the adoption of the SAP MED and 7 years after the adoption of the NAPs it is necessary to make an in depth evaluation of NAPs implementation with the view to assess the state of the art and provide recommendations to address current and future challenges to enhance their implementation sustainability. Therefore the Contracting parties approved the evaluation of SAP/NAP implementation as a key output for the 2012-2013 biennium of UNEP/MAP-MEDPOL.

Therefore the main objective of the evaluation is to enhance the sustainability of the SAP MED/NAP implementation based on a forward looking assessment of the status of implementation of SAP/NAP and achievement of their targets, and provide specific recommendations on ways and means to integrate in SAP/NAP process the ecosystem approach GES and respective targets and the implementation of the legally binding measures adopted by the Contracting parties.

The methodology followed by this evaluation consisted of:

- An exhaustive desk review of legal framework, national strategies and plans and all the available information and data on the state of the environment of each Contracting Party.
- An analysis of global and regional initiatives on marine environment protection and the identification of further synergies and partnerships with Barcelona Convention and its Protocols with regards to pollution reduction and control.
- The analysis of reported data on releases of pollutants into the marine environment (mainly NBB and PRTR) by each country in order to track reduction trends.
- Assessment of the achievement of SAP regional activities and targets on substances reduction/phase out at regional level for group of substances and sectors.

It should be noted that national data on pollutant releases into the marine environment (NBB) presented inconsistencies between reporting years and with other reporting systems (PRTR) in those countries where different reporting were available. Therefore

the variations within the scope of the reporting, different methods of calculation and lack of data validation hinder the identification of reliable trends and thus the extraction of solid conclusions and recommendations.

The SAP /NAP evaluation report is composed of 5 parts:

1. Analysis of SAP MED target achievements
2. Status of implementation of SAP MED Regional outputs
3. Regional synopsis of NAP implementation
4. NAP implementation country profile
  - Legal&policy aspects
  - Pollution trends analysis per group of substances and sectors
5. NAP Implementation Country fact sheet

At the time of preparing this report, only the regional reports are available. NAP implementation country profiles and country fact sheets will be inserted upon validation by each respective country.

## II. ANALYSIS OF SAP MED TARGET ACHIEVEMENTS

### 1. Introduction

**SAP MED (Strategic Action Programme to address pollution from land-based activities)** contains measures and timetables for the implementation of the 1996 LBS Protocol according to Art. 5. It covers all appropriate measures to prevent, abate, combat and eliminate, to the fullest possible extent, pollution of the Mediterranean Sea Area caused by discharges from rivers, coastal establishments or outfalls, or emanating from any other land-based sources and activities within their territories, giving priority to the phasing out of inputs of substances that are toxic, persistent and liable to bioaccumulate. Furthermore, in compliance with the Art.15 of the LBS Protocol, during the 15<sup>th</sup> Meeting of the Contracting Parties of The Barcelona Convention, a Decision on the “Implementation of NAPs and the preparation of legally binding measures and timetables” was adopted and the following **regional plans** were approved:

- Elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex and Toxaphene.
- Phasing out of DDT.
- Reduction of BOD5 from urban waste water.
- Reduction of inputs of Mercury.
- Reduction of BOD5 in the food sector.
- Phasing out of Hexabromodiphenyl ether, Heptabromodiphenyl ether, Tetrabromodiphenyl ether and Pentabromodiphenyl ether.
- Phasing out of Lindane and Endosulfan.
- Phasing out of Perfluorooctane sulfonic acid, its salts and Perfluorooctane sulfonyl fluoride.
- Elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, Pentachlorobenzene.

### 2. NBB 2003-2008

National Baseline Budget (NBB) is a reporting tool established to detect any possible reduction trend in the direct and indirect releases of pollutants into the marine environment which could result from the implementation of priority actions as described in the NAPs to address LBS sources of Pollution and thus comply with SAP MED targets. NBB compiles national pollutant discharges to air and water for a large number of pollutants with a 5-year periodicity (2003, 2008, 2013,...).

The level of detail for each **record** in the NBB database is:

**Country–Region–Sector-Subsector- Process -Pollutant–Emission Value-Nature – Year -Group1 - Group2 -Unit weight**

Main data and information gaps regarding 2003 and 2008 NBB are provided below:

- Countries: In 2003 all 21 countries reported data to the NBB, while in 2008 data is not available for two countries (Greece and Albania).

- Nature of emissions: There are three countries (Malta, Morocco, and Palestine) that have not reported atmospheric emissions in 2003 and 2008. France did neither reported atmospheric emissions in 2008.
- Pollutants: About 75 different substances were included in the 2003 dataset, while in 2008 a total 103 pollutants were reported, including 70 of the substances reported in 2003.
- Group of pollutants: Pollutants are classified into two different groups of pollutants, at two levels of detail.

**Table 1.** Groups 1 and 2 of pollutants in NBB 2003 - 2008.

<b>Group1</b>	<b>Hydrocarbons</b>	
	Aromatic HC	Group 2
	PAH	Group 2
	Petroleum HC and oils&greases	Group 2
	VOC	Group 2
<b>Group1</b>	<b>Metals and compounds</b>	
	Metallic compounds	Group 2
	Metals	Group 2
<b>Group1</b>	<b>Nutrients, SS and BOD/TOC</b>	
	BOD/COD/TOC	Group 2
	Nutrients and SS	Group 2
<b>Group1</b>	<b>Organohalogen</b>	
	Chlorinated pesticides	Group 2
	Halogenated Aliphatic HC	Group 2
	Halogenated Aromatic HC	Group 2
	Other halogenated compounds	Group 2
<b>Group1</b>	<b>Other atmospheric pollutants</b>	
	GHG	Group 2
	NH3	Group 2
	Other combustion gases	Group 2
	Particles	Group 2
<b>Group1</b>	<b>Other inorganic compounds</b>	
	Cyanures and fluorures	Group 2
<b>Group1</b>	<b>Other organic compounds</b>	
	Organic Oxigen Compounds	Group 2
	Phenols	Group 2

- Sectors and subsectors: As for pollutants, the availability of data at sector and subsector level is not homogeneous. Some sectors have been reported by a very limited number of countries, like agriculture, mining, manufacture of electronic products, or waste management related activities.

**Table 2.** Number of records in 2003 and 2008, by sectors.

<b>Sector</b>	<b>2003</b>	<b>2008</b>	<b>Variation(n)</b>	<b>Variation(%)</b>
Agriculture	106	81	-25	-24%
Aquaculture	174	121	-53	-30%
Building and repairing of ships and boats	68	97	29	43%
Factories that cause physical changes to the environment	12	16	4	33%
Farming of animals	275	423	148	54%
Food packing	1,142	1,016	-126	-11%
Management of urban solid waste	10	177	167	1,670%
Manufacture and formulation of biocides	32	24	-8	-25%
Manufacture of cement	521	816	295	57%
Manufacture of electronics products	34	39	5	15%
Manufacture of fertilizers	94	147	53	56%
Manufacture of metals	725	1,136	411	57%
Manufacture of other inorganic chemicals	410	880	470	115%
Manufacture of other organic chemicals	367	951	584	159%
Manufacture of paper	177	369	192	108%
Manufacture of pharmaceuticals	132	160	28	21%
Manufacture of refined petroleum products	394	461	67	17%
Manufacture of textiles	252	456	204	81%
Mining and quarrying	41	201	160	390%
NA	523	635	112	21%
Other	35	150	115	329%
Port services	6	5	-1	-17%
Production of energy	856	1654	798	93%
Recycling activities	14	19	5	36%
Tanning and dressing of leather	218	143	-75	-34%
Tourism	99	542	443	447%
Transport	188	88	-100	-53%
Treatment and storage of hazardous wastes	5	198	193	3,860%
Treatment of sewage sludge	50	1	-49	-98%
Treatment of urban wastewater	338	1,328	990	293%
Waste incineration and management of its residues	8	105	97	1213%
Waste management activities	203	121	-82	-40%
<b>Total</b>	<b>7,509</b>	<b>12,560</b>	<b>5,051</b>	<b>67%</b>

**Table 3** Number of different sectors and pollutants reported by each country in 2003 and 2008.

Country	2003		2008	
	nSectors	nPollutants	nSectors	nPollutants
Albania	14	18	NA	NA
Algeria	13	30	15	20
Bosnia H.	8	23	6	18
Croatia	18	35	16	34
Cyprus	11	21	7	27
Egypt	10	30	10	29
France	14	17	21	54
Greece	21	24	NA	NA
Israel	7	35	8	27
Italy	20	48	13	47
Lebanon	14	38	14	17
Libya	8	27	7	27
Malta	6	25	6	25
Montenegro	7	24	6	28
Morocco	9	7	9	5
Palestine	1	10	1	10
Slovenia	11	20	12	18
Spain	0	31	22	80
Syria	14	27	14	26
Tunisia	10	29	9	16
Turkey	19	31	20	25
Total diff. n	30	75	30	103

- Geographical scope: countries might have been using different criteria to delimitate the geographic scope to build up the industrial inventory to be included in the NBB. For instance, France and Spain have considered the overall Mediterranean hydrological basin, even if the administrative regions are far away from the Mediterranean coast. On the other side, other countries might have just considered the Mediterranean coastal administrative regions.
- Direct vs. indirect emissions. Different criteria might also have been used to report water discharges. Some countries (e.g. E-PRTR reporting countries) differentiate between direct (after treatment, to rivers and coastal waters) and indirect (before

treatment, to sewage systems) emissions, and in these cases direct discharges are only selected for the NBB database<sup>1</sup>.

- **Sector allocation:** countries that have reported data based on the E-PRTR register (i.e. France, Spain) use a different classification of sectors-subsectors.
- **Method of calculation:** some countries have used emission factors and activity data to estimate atmospheric and water releases, while others combine estimated with monitored data. **It must be noted that in those cases where all releases have been estimated using the same emission factors in 2003 and 2008, any change in emissions will be exclusively attributed to changes in the industrial inventory or geographic scope.**

### 3. Achievement of SAP MED targets

Table 4 shows the level of achievement, based on NBB 2003 and 2008 data, of SAP MED targets on the reduction of contaminant emissions from land based sources for the whole Mediterranean region. In addition, for each substance are introduced the corresponding groups of pollutants defined by SAP MED and NBB.

Some of the target substances, e.g. some POPs, could not be assessed due to the lack of NBB data for both years; however, it should be assumed that discharges must have followed a downward trend as most of them should be banned.

Other target substances show a significant reduction of discharges into the Mediterranean Sea: PAH, Mercury, Cadmium, Lead, Zinc and Chrome. However, it is difficult to assess at what extent discharges have been phase out and whether further efforts must be made.

Finally, some SAP MED targets have not been achieved because an increase is observed: BOD5, PCB/PCT, Hexachlorobenzene, PCDD/PCDDF, Butyltin compounds and Copper.

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<sup>1</sup> For Spain, this distinction has only been made in 2008, which therefore affects the comparability of data between 2003 and 2008.

**Table 4.** Level of achievement of SAP MED targets based on 2003 and 2008 NBB data.

NBB Group1 of pollutants	NBB Group2 of pollutants	SAP MED Category	Substance	SAP MED target	Regional Plans' targets	Current status 2008 vs 2003
Nutrients, SS and BOD/TOC	BOD/COD/TOC	Nutrients and suspended solids	BOD5	Reduce 50% inputs of BOD by 2010	Emission Limit Values for Industrial Food Plants discharging more than 4 000 pe into water bodies: COD 160 mg/l; TOC 55 mg/l; BOD5 30 mg/l	10.86%
Organohalogen	Chlorinated pesticides	POPs	Aldrine	Phase out inputs of 9 pesticides and PCBs by 2010	Elimination by December 2012	N.a.
Organohalogen	Chlorinated pesticides	POPs	DDT	Phase out inputs of 9 pesticides and PCBs by 2010	Elimination with exemptions by December 2012	N.a.
Organohalogen	Chlorinated pesticides	POPs	Dieldrine	Phase out inputs of 9 pesticides and PCBs by 2010	Elimination by December 2012	N.a.
Organohalogen	Chlorinated pesticides	POPs	Endrine	Phase out inputs of 9 pesticides and PCBs by 2010	Elimination by December 2012	N.a.
Organohalogen	Chlorinated pesticides	POPs	Chlordane	Phase out inputs of 9 pesticides and PCBs by 2010	Elimination by December 2012	N.a.
Organohalogen	Chlorinated pesticides	POPs	Heptachlor	Phase out inputs of 9 pesticides and PCBs by 2010	Elimination by December 2012	N.a.
Organohalogen	Chlorinated pesticides	POPs	Mirex	Phase out inputs of 9 pesticides and PCBs by 2010	Elimination by December 2012	N.a.
Organohalogen	Chlorinated pesticides	POPs	Toxaphene	Phase out inputs of 9 pesticides and PCBs by 2010	Elimination by December 2012	N.a.

<b>NBB Group1 of pollutants</b>	<b>NBB Group2 of pollutants</b>	<b>SAP MED Category</b>	<b>Substance</b>	<b>SAP MED target</b>	<b>Regional Plans' targets</b>	<b>Current status 2008 vs 2003</b>
Organohalogen	Chlorinated pesticides	POPs	Hexachlorobenzene	Phase out inputs of 9 pesticides and PCBs and reduce to the fullest possible extent hexachloro benzene, dioxins and furans by 2010		<b>8113.94%</b>
Organohalogen	Halogenated aromatic hydrocarbons	POPs	PCB/PCT	Phase out inputs of 9 pesticides and PCBs by 2010		<b>187.19%</b>
Organohalogen	Halogenated aromatic hydrocarbons	POPs	PCDD/PCDF	Reduce to the fullest possible extent hexachloro benzene, dioxins and furans by 2010		<b>19941.62%</b>
Hydrocarbons	PAHs	PAHs	PAH	Phase out to the fullest possible extent inputs of PAHs by 2010		<b>-17.82%</b>
Metals and compounds	Metals	Heavy metals (Hg, Cd, Pb) and organometallic compounds	Mercury	Phase out to the fullest possible extent discharges and emissions and losses of heavy metals (mercury, cadmium and lead) by 2025	Emission Limit Values: chloralkali industry 1.0 g/t Cl capacity; other industries 5 µg/l; incineration plants 0.05mg/Nm3	<b>-40.47%</b>
Metals and compounds	Metals	Heavy metals (Hg, Cd, Pb) and organometallic compounds	Cadmium	Phase out to the fullest possible extent discharges and emissions and losses of heavy metals (mercury, cadmium and lead) by 2025		<b>-46.11%</b>
Metals and compounds	Metals	Heavy metals (Hg, Cd, Pb) and organometallic compounds	Lead	Phase out to the fullest possible extent discharges and emissions and losses of heavy metals (mercury, cadmium and lead) by 2025		<b>-29.22%</b>
Metals and compounds	Metallic compounds	Heavy metals (Hg, Cd, Pb) and organometallic compounds	Butyltin compounds	Phase out to the fullest possible extent discharges and emissions and losses of organotin compounds by 2010		<b>35785.05%</b>

NBB Group1 of pollutants	NBB Group2 of pollutants	SAP MED Category	Substance	SAP MED target	Regional Plans' targets	Current status 2008 vs 2003
Metals and compounds	Metals	Other heavy metals	Zinc	Reduce discharges, emissions and losses of zinc, copper and chrome by 2010		-59.88%
Metals and compounds	Metals	Other heavy metals	Copper	Reduce discharges, emissions and losses of zinc, copper and chrome by 2010		110.81%
Metals and compounds	Metals	Other heavy metals	Chrome	Reduce discharges, emissions and losses of zinc, copper and chrome by 2010		-38.48%
Organohalogen	Halogenated aromatic hydrocarbons	Halogenated Aromatic Hydrocabons	Hexabromodiphenyl ether	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination with exemptions by 2013	N.a.
Organohalogen	Halogenated aromatic hydrocarbons	Halogenated Aromatic Hydrocabons	Heptabromodiphenyl ether	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination with exemptions by 2013	N.a.
Organohalogen	Halogenated aromatic hydrocarbons	Halogenated Aromatic Hydrocabons	Tetrabromodiphenyl ether	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination with exemptions by 2013	N.a.
Organohalogen	Halogenated aromatic hydrocarbons	Halogenated Aromatic Hydrocabons	Pentabromodiphenyl ether	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination with exemptions by 2013	N.a.
Organohalogen	Chlorinated pesticides	Organohalogenated pesticides	Lindane	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination with exemptions by 2013	N.a.
Organohalogen	Chlorinated pesticides	Organohalogenated pesticides	Endosulfan	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination with exemptions by 2013	N.a.

<b>NBB Group1 of pollutants</b>	<b>NBB Group2 of pollutants</b>	<b>SAP MED Category</b>	<b>Substance</b>	<b>SAP MED target</b>	<b>Regional Plans' targets</b>	<b>Current status 2008 vs 2003</b>
Organohalogen	Halogenated alifatic hydrocarbons	Organohalogen compounds	Perfluorooctane sulfonic acid, its salts	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination with exemptions by 2013	N.a.
Organohalogen	Halogenated alifatic hydrocarbons	Organohalogen compounds	Perfluorooctane sulfonyl fluoride	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination with exemptions by 2013	N.a.
Organohalogen	Halogenated aromatic hydrocarbons	Organohalogen compounds	Pentachlorobenzene	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination by 2013	N.a.
Organohalogen	Halogenated aromatic hydrocarbons	POPs	Hexabromobiphenyl	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination by 2013	N.a.
Organohalogen	Chlorinated pesticides	POPs	Chlordecone	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination by 2013	N.a.
Organohalogen	Chlorinated pesticides	Organohalogenated pesticides	Beta hexachlorocyclohexane	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination by 2013	N.a.
Organohalogen	Chlorinated pesticides	Organohalogenated pesticides	Alpha hexachlorocyclohexane	Reduce discharges, emissions and lossess into the Mediterranean Sea by 2010	Elimination by 2013	N.a.

### III. STATUS OF IMPLEMENTATION OF SAP MED REGIONAL OUTPUTS

#### Urban environment

##### Municipal sewage

By the year 2000, to update and adopt the 1986 guidelines for sewage treatment and disposal and, as appropriate, environmental quality criteria and standards.

##### Status of implementation

- Guidelines on Sewage Treatment and Disposal of sanitation systems in the Mediterranean region, MAP Technical Reports Series No. 152.
- UNEP-MAP Decision IG.20\*/-9. Criteria and standards for bathing waters quality.

To develop programmes for sharing and exchanging technical information and advice regarding environmentally sound sewage treatment and facilities, including the use of treated waste water and of sewage sludge.

- UNEP-MAP Decision IG 19/7. Regional Plan on the reduction of BOD5 from urban wastewater in the framework of the implementation of Article 15 of the LBS Protocol. UNEP/(DEPI)/MED IG.19/8.
- Assessment of the state of microbiological pollution of the Mediterranean. MAP Technical Reports Series No. 108.
- UNEP/MAP/MED POL/WHO: Assessment of the state of microbial pollution in the Mediterranean Sea. MAP Technical Reports Series No. 170, UNEP/MAP, Athens, 2008.
- Assessment of the state of eutrophication in the Mediterranean Sea. MAP Technical Reports Series No. 106.
- UNEP/MAP/UNESCO/FAO: Eutrophication in the Mediterranean Sea: Receiving capacity and monitoring of long-term effects. UNEP/MAP: Athens, 1988.
- UNEP/MAP: State of the Marine and Coastal Environment in the Mediterranean Region. UNEP/MAP: Athens, 1996.
- Guidelines for sewage sludge treatment, disposal and use in sanitation systems, Meeting of MED POL National Coordinators, Barcelona, Spain, 24-27 May 2005, UNEP(DEC)/MED WG.264/Inf.8.
- Guidelines for submarine outfall structures for Mediterranean small and medium-sized coastal communities, MAP Technical Reports Series No. 112.
- Development of Performance Indicators for the Operation and Maintenance of Wastewater Treatment Plants and Wastewater Reuse, Meeting of the MED POL Focal Point, Rhodes, Greece, 25-27 May 2011, UNEP/(DEPI)/MED WG.357/Inf.9.
- Guiding documents for sewage treatment in the Mediterranean, Meeting of MED POL National Coordinators, Hammamet, Tunisia, 25-28 June 2007, UNEP/(DEPI)/MED WG.316/Inf.4.
- Appropriate sewage discharge for Mediterranean urban coastal agglomerates, Meeting of MED POL National Coordinators, Hammamet, Tunisia, 25-28 June 2007, UNEP/(DEPI)/MED WG.316/Inf.4a.
- Guidance for choosing the appropriate wastewater treatment and reuse scheme for local authorities, Meeting of MED POL National Coordinators, Hammamet, Tunisia, 25-28 June 2007, UNEP/(DEPI)/MED WG.316/Inf.4b.
- Strategic Action Programme – Guidelines on Municipal Wastewater Reuse for the Mediterranean region, Meeting of MED POL National Coordinators, Sangemini, Italy, 27-30 May 2003, UNEP(DEC)/MED WG.231/Inf.6.
- Natural wastewater treatment systems for the Mediterranean region, Meeting of MED POL National Coordinators,

	<p>Barcelona, Spain, 24-27 May 2005, UNEP(DEC)/MED WG.264/Inf.6.</p> <ul style="list-style-type: none"> <li>• Assessment of Wastewater Reuse Practices in the Mediterranean region, Meeting of MED POL National Coordinators, Sangemini, Italy, 27-30 May 2003, UNEP(DEC)/MED WG.231/Inf.5.</li> <li>• Report of the Second National Training Course on Water Reclamation and Reuse, Valletta, Malta, 27-29 April 2009, EUR/09/5078969/1.</li> <li>• Report of the National Training Course on Water Reclamation and Reuse, Aydin, Kusadasi, Turkey, 22-24 October 2007, EUR/07/5069427/1.</li> <li>• Report of the Regional Training Course for Trainers on Water Reclamation and Reuse, Barcelona, Spain, 22-25 November 2004, EUR/04/5047578/5.</li> <li>• UNEP/MAP/FAO/IOC: Proceedings of the FAO/UNEP/IOC Workshop on the Biological Effects of Pollutants on Marine Organisms (Malta, 10-14 September 1991), edited by G.P. Gabrielides. UNEP/MAP: Athens, 1992.</li> <li>• Training material and CD-Rom presentation for the course "Training the Trainers" – Municipal Wastewater Treatment Plant Operation and Management (Volumes I, II and instruction for lecturers).</li> </ul>
To promote research programmes to identify and validate sewage treatment technologies.	<ul style="list-style-type: none"> <li>• UNEP/MAP/FAO: Final reports on research projects dealing with eutrophication problems. UNEP/MAP: Athens, 1994.</li> </ul>
<b>Urban Solid Waste</b>	<b>Status of implementation</b>
By the year 2000 to formulate and adopt guidelines for environmentally suitable and economically feasible systems of collection and disposal of urban solid waste.	<ul style="list-style-type: none"> <li>• Guidelines for the safe management of Coastal Litter for the Mediterranean Region, MAP Technical Reports Series No. 148.</li> </ul>
By the year 2005, to develop programmes for the reduction and recycling of urban solid waste.	<ul style="list-style-type: none"> <li>• Assessment of the Status of Marine Litter in the Mediterranean, Meeting of the MED POL Focal Point, Rhodes, Greece, 25-27 May 2011, UNEP(DEPI)/MED WG.357/Inf.4.</li> <li>• Results of the assessment of the status of marine litter in the Mediterranean, Meeting of the MED POL Focal Points, Kalamata, Greece, 2-4 June 2009, UNEP(DEPI)/MED WG. 334/Inf.5.</li> <li>• Strategic Action Programme for the Management of Marine Litter in the Mediterranean – Financial Aspects of its implementation, Meeting of the MED POL Focal Point, Rhodes, Greece, 25-27 May 2011, UNEP(DEPI)/MED WG.357/Inf.5.</li> <li>• Strategic Action Programme for the Management of Marine Litter in the Mediterranean, Meeting of the MED POL Focal Point, Rhodes, Greece, 25-27 May 2011, UNEP(DEPI)/MED WG.357/7.</li> <li>• UNEP-MAP Decision IG.20/10. Marine litter management.</li> </ul>
<b>Air Pollution</b>	<b>Status of implementation</b>
By the year 2005, to formulate	<ul style="list-style-type: none"> <li>• UNEP/MAP: Atmospheric Transport and Deposition of Pollutants into the Mediterranean Sea: Final Reports on Research</li> </ul>

and adopt air quality objectives for atmospheric pollutants.	<p>Projects. UNEP/MAP: Athens, 2001.</p> <ul style="list-style-type: none"> <li>• UNEP/MAP: Meteorological and climatological data from surface and upper measurements for the assessment of atmospheric transport and deposition of pollutants in the Mediterranean Basin: A review. UNEP/MAP: Athens, 1989.</li> </ul>
<b>Industrial development</b>	
By the year 2005, to formulate and adopt guidelines for industrial wastewater treatment and disposal.	<ul style="list-style-type: none"> <li>• Guidelines for the safe management of industrial wastewater for the Mediterranean region, MAP Technical Reports Series No. 153.</li> <li>• Guidelines for treatment of effluents prior to discharge into the Mediterranean Sea, MAP Technical Reports Series No. 111.</li> </ul>
By the year 2010, formulate and adopt environmental quality criteria and objectives, and emission limit values for point source discharges into water or air.	<ul style="list-style-type: none"> <li>• UNEP-MAP Decision IG.20/8. Reduction of inputs of Mercury, BOD5 (from food industries) and ten POPs.</li> <li>• UNEP/MAP/WMO: The Input of Anthropogenic Airborne Nitrogen to the Mediterranean Sea through its Watershed. UNEP/MAP: Athens, 1997.</li> </ul>
To develop programmes for sharing and exchanging technical information and advice regarding environmentally sound waste water treatment and facilities, including the use of treated waste water, sludge and waste.	<ul style="list-style-type: none"> <li>• UNEP/MAP: Wastewater reuse for irrigation in the Mediterranean region. Priority Actions Programme, Regional Activity Centre, Split, 1990.</li> <li>• Guidelines on physical and chemical parameters for safe water use in irrigation, Meeting of MED POL National Coordinators, Barcelona, Spain, 24-27 May 2005, UNEP(DEC)/MED WG.264/Inf.10.</li> <li>• Guidance for treated wastewater use in irrigation, Meeting of MED POL National Coordinators, Barcelona, Spain, 24-27 May 2005, UNEP(DEC)/MED WG.264/Inf.11.</li> <li>• Promoting the use of reclaimed water in the Mediterranean: Planned water reuse in the Mediterranean, Meeting of MED POL National Coordinators, Hammamet, Tunisia, 25-28 June 2007, UNEP(DEPI)/MED WG.316/Inf.4c.</li> <li>• UNEP/MAP/FAO: Study of ecosystem modifications in areas influenced by pollutants (Activity I). UNEP/MAP: Athens, 1988.</li> </ul>
To promote research programmes to identify and validate waste water treatment technologies.	<ul style="list-style-type: none"> <li>• UNEP/MAP/FAO: Final reports on research projects dealing with the effects of pollutants on marine organisms and communities. UNEP/MAP: Athens, 1994.</li> <li>• UNEP/MAP/FAO: Final reports on research projects dealing with toxicity of pollutants on marine organisms. UNEP/MAP: Athens, 1994.</li> <li>• UNEP/MAP/FAO: Final Reports on Research Projects Dealing with the Effects of Pollutants on Marine Communities and Organisms. UNEP/MAP: Athens, 1993.</li> </ul>
To prepare guidelines for the application of BAT, BEP and clean technology for industries.	<ul style="list-style-type: none"> <li>• UNEP/MAP/RAC/CP: Guidelines for the application of Best Available Techniques (BATs), Best Environmental Practices (BEPs) and Cleaner Technologies (CTs) in industries of the Mediterranean countries. UNEP/MAP: Athens, 2004.</li> </ul>
To support the development and application of the Environmental Management and Audit Schema (EMAS and ISO 14000).	<ul style="list-style-type: none"> <li>• No information is available</li> </ul>

<b>Substances that are Toxic, Persistent and liable to Bioaccumulate (TPB)</b>	
<b>12 Priority POPs.</b>	<b>Status of implementation</b>
To provide Contracting Parties with technical information and advice on the nine pesticides and PCB substitutes and make appropriate recommendations.	<ul style="list-style-type: none"> <li>• Substitutes to be used as alternatives to 12 priority Persistent Organic Pollutants, Meeting of MED POL National Coordinators, Barcelona, Spain, 24-27 May 2005, UNEP(DEC)/MED WG.264/Inf.13.</li> <li>• UNEP/MAP/FAO: Baseline studies and monitoring of DDT, PCBs and other chlorinated hydrocarbons in marine organisms (MED POL III). UNEP/MAP: Athens, 1986.</li> </ul>
To develop programmes for sharing and exchanging technical information and advice regarding the environmentally sound disposal of the existing quantities of the nine pesticides and PCBs. These Programmes should consider their progressive elimination, including the decontamination of equipment and containers.	<ul style="list-style-type: none"> <li>• UNEP/MAP/MED POL: Inventories of PCBs and nine pesticides. UNEP/MAP: Athens, 2004.</li> <li>• UNEP-MAP Decision IG 19/8. Regional Plan on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex and Toxaphene in the framework of the implementation of Article 15 of the LBS Protocol. UNEP(DEPI)/MED IG.19/8.</li> <li>• UNEP-MAP Decision IG.20/8. Reduction of inputs of Mercury, BOD5 (from food industries) and ten POPs.</li> <li>• UNEP/MAP/WMO: Atmospheric Input of Persistent Organic Pollutants to the Mediterranean Sea. UNEP/MAP: Athens, 2001.</li> </ul>
To prepare guidelines for the application of BEP and if possible BAT by the point sources of dioxins and furans.	<ul style="list-style-type: none"> <li>• UNEP/MAP/MED POL: Plan for the management PCBs waste and nine pesticides for the Mediterranean Region. UNEP/MAP: Athens, 2004.</li> </ul>
<b>Other POPs</b>	<b>Status of implementation</b>
To prepare guidelines for the application of BEP and BAT by the point and diffuse sources of PAHs.	<ul style="list-style-type: none"> <li>• UNEP/MAP/RAC/CP: Guidelines for the application of Best Available Techniques (BATs), Best Environmental Practices (BEPs) and Cleaner Technologies (CTs) in industries of the Mediterranean countries. UNEP/MAP: Athens, 2004.</li> </ul>
By the year 2010, to formulate and adopt, as appropriate, emission values for point source discharges and emissions of PAHs.	<ul style="list-style-type: none"> <li>• UNEP/MAP/WMO: Atmospheric Input of Persistent Organic Pollutants to the Mediterranean Sea. UNEP/MAP: Athens, 2001.</li> <li>• UNEP/MAP/IOC/FAO: Assessment of the state of pollution of the Mediterranean Sea by persistent synthetic materials, which may float, sink or remain in suspension. UNEP/MAP: Athens, 1991.</li> </ul>
<b>Heavy metals (Hg, Cd, Pb)</b>	<b>Status of implementation</b>
To prepare guidelines for the application of BAT and BEP in the industrial installations that are sources of heavy metals (mercury, cadmium and lead).	<ul style="list-style-type: none"> <li>• UNEP/MAP/RAC/CP: Guidelines for the application of Best Available Techniques (BATs), Best Environmental Practices (BEPs) and Cleaner Technologies (CTs) in industries of the Mediterranean countries. UNEP/MAP: Athens, 2004.</li> <li>• UNEP-MAP Decision IG.20/8. Reduction of inputs of Mercury, BOD5 (from food industries) and ten POPs.</li> </ul>

By the year 2010, to formulate and adopt, as appropriate, environmental quality criteria and standards for point source discharges and emissions of heavy metals (mercury, cadmium and lead).	<ul style="list-style-type: none"> <li>• UNEP/MAP/FAO: Baseline studies and monitoring of metals, particularly mercury and cadmium, in marine organisms (MED POL II). UNEP/MAP: Athens, 1986.</li> <li>• UNEP/MAP/FAO/WHO: Assessment of the state of pollution of the Mediterranean Sea by cadmium and cadmium compounds. UNEP/MAP: Athens, 1989.</li> <li>• UNEP/MAP/WMO: Atmospheric Input of Mercury to the Mediterranean Sea. UNEP/MAP: Athens, 1998.</li> <li>• UNEP/MAP/WMO: Assessment of Airborne Pollution of the Mediterranean Sea by Sulphur and Nitrogen Compounds and Heavy Metals in 1991. UNEP/MAP: Athens, 1994.</li> <li>• UNEP/MAP/FAO/WHO: Assessment of the state of pollution of the Mediterranean Sea by mercury and mercury compounds. UNEP/MAP: Athens, 1987.</li> </ul>
<b>Organometallic compounds</b>	<b>Status of implementation</b>
To prepare guidelines for BAT and BEP in industrial installations that are sources of organometallic compounds.	<ul style="list-style-type: none"> <li>• UNEP/MAP/RAC/CP: Guidelines for the application of Best Available Techniques (BATs), Best Environmental Practices (BEPs) and Cleaner Technologies (CTs) in industries of the Mediterranean countries. UNEP/MAP: Athens, 2004.</li> </ul>
By the year 2010, to formulate and adopt, as appropriate, environmental quality criteria and standards for point source discharges and emissions of organometallic compounds.	<ul style="list-style-type: none"> <li>• UNEP/MAP/FAO/WHO/IAEA: Assessment of organotin compounds as marine pollutants in the Mediterranean. UNEP/MAP: Athens, 1989.</li> </ul>
<b>Other heavy metals</b>	<b>Status of implementation</b>
To prepare guidelines for the application of BAT and BEP in industrial installations which are sources of zinc, copper, chrome.	<ul style="list-style-type: none"> <li>• UNEP/MAP/RAC/CP: Guidelines for the application of Best Available Techniques (BATs), Best Environmental Practices (BEPs) and Cleaner Technologies (CTs) in industries of the Mediterranean countries. UNEP/MAP: Athens, 2004.</li> </ul>
By the year 2010, to formulate and adopt, as appropriate, environmental quality criteria and standards for point source discharges and emissions of zinc, copper and chrome.	<ul style="list-style-type: none"> <li>• Assessment of the State of Pollution of the Mediterranean Sea by Zinc, Copper and their Compounds (MAP Technical Reports Series No. 105).</li> <li>• UNEP/MAP/FAO: Toxicity, persistence and bioaccumulation of selected substances to marine organisms (Activity G). UNEP/MAP: Athens, 1988.</li> </ul>
<b>Organohalogen compounds</b>	<b>Status of implementation</b>
To prepare guidelines for the application of BAT and of BEP in industrial installations which	<ul style="list-style-type: none"> <li>• UNEP/MAP/RAC/CP: Guidelines for the application of Best Available Techniques (BATs), Best Environmental Practices (BEPs) and Cleaner Technologies (CTs) in industries of the Mediterranean countries. UNEP/MAP: Athens, 2004.</li> </ul>

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are sources of organohalogen compounds.

By the year 2010, to formulate and adopt, as appropriate, environmental quality criteria and standards for point source discharges and emissions of organohalogen compounds.

- UNEP/MAP/IAEA/IOC/FAO: Organohalogen Compounds in the Marine Environment: A Review. UNEP/MAP: Athens, 1992.
- UNEP/MAP/FAO/WHO/IAEA: Assessment of the state of pollution of the Mediterranean Sea by organohalogen compounds. UNEP/MAP: Athens, 1990.
- UNEP/MAP/FAO/WHO/IAEA: Assessment of the state of pollution of the Mediterranean Sea by organophosphorus compounds. UNEP/MAP: Athens, 1991.

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#### **Radioactive Substances**

To transmit to the Parties reports and other information received in accordance with the Convention and the Protocol.

#### **Status of implementation**

- UNEP/MAP/IAEA: Assessment of the State of Pollution of the Mediterranean Sea by Radioactive Substances. UNEP/MAP: Athens, 1992.

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#### **Nutrients and Suspended Solids**

##### **Industrial waste water**

To prepare guidelines for the application of BAT and BEP in industrial installations which are sources of BOD, nutrients and suspended solids.

##### **Status of implementation**

- UNEP/MAP/RAC/CP: Guidelines for the application of Best Available Techniques (BATs) and Best Available Practices (BEPs) in industrial sources of BOD, nutrients and suspended solids for the Mediterranean region. UNEP/MAP: Athens, 2004.

By the year 2010, to formulate and adopt, as appropriate, environmental quality criteria and standards for point source discharges of BOD, nutrients and suspended solids.

- UNEP/MAP/MED POL: Plan on reduction of input of BOD by 50% by 2010 from industrial sources for the Mediterranean region. UNEP/MAP: Athens, 2004.

By the year 2010, to formulate and adopt guidelines for waste water treatment and waste disposal from industries which are sources of BOD, nutrients and suspended solids.

- Guidelines for the safe management of industrial wastewater for the Mediterranean region, MAP Technical Reports Series No. 153.

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##### **Agriculture**

To participate in the programmes and activities of international organizations, especially FAO, on sustainable agricultural and rural

##### **Status of implementation**

- UNEP/MAP/BLUE PLAN: Rethinking rural development in the Mediterranean: Proceedings of the Regional Workshop on Sustainable Agriculture and Rural Development: Bari, Italy, May 8-11, 2008. MAP Technical Reports Series No. 172. UNEP/MAP, Athens, 2009.
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development in the Mediterranean.	
To participate in the FAO programme on the sustainable use of fertilizers and to encourage the preparation of national and regional strategies based on the controlled, appropriate and rational use of seeds, fertilizers and pesticides.	<ul style="list-style-type: none"> <li>• Work with FAO mainly focused on research projects and assessments related to biological effects of pollutants on marine organisms and communities, toxicity of pollutants, eutrophication, organohalogenes, organophosphorus, mercury, in addition to ecosystem modifications due to pollutants.</li> </ul>
To prepare guidelines for the application of BEP (including good agricultural practices) for the rational use of fertilizers and the reduction of losses of nutrients from agriculture.	<ul style="list-style-type: none"> <li>• UNEP/MAP/RAC/CP: Guidelines for the application of Best Environmental Practices (BEPs) for the rational use of fertilisers and the reduction of nutrient loss from agriculture for the Mediterranean region. UNEP/MAP: Athens, 2004.</li> </ul>
<b>Hazardous Wastes</b>	<b>Status of implementation</b>
To prepare a Mediterranean Strategy for the Management of Hazardous Wastes.	<ul style="list-style-type: none"> <li>• UNEP/MAP/MED POL: Plan for the management of hazardous waste, including inventory of hazardous waste in the Mediterranean region. UNEP/MAP: Athens, 2004.</li> <li>• UNEP/MAP/RAC/CP: Plan for the reduction by 20% by 2010 of the generation of hazardous wastes from industrial installations for the Mediterranean region. UNEP/MAP: Athens, 2004.</li> </ul>
To formulate and adopt common anti-pollution measures for hazardous wastes.	<ul style="list-style-type: none"> <li>• UNEP-MAP Decision IG 19/9. Regional Plan on the phasing out of DDT in the framework of the implementation of Article 15 of the LBS Protocol. UNEP/(DEPI)/MED IG.19/8.</li> <li>• UNEP/MAP/WHO: Assessment of the State of Pollution in the Mediterranean Sea by Carcinogenic, Mutagenic and Teratogenic Substances. UNEP/MAP: Athens, 1995.</li> </ul>
<b>Obsolete Chemicals</b>	<b>Status of implementation</b>
To develop programmes for sharing and exchanging technical information and advice regarding the environmentally sound disposal of obsolete chemicals.	<ul style="list-style-type: none"> <li>• UNEP/MAP/IOC: Assessment of the state of pollution of the Mediterranean Sea by petroleum hydrocarbons. UNEP/MAP: Athens, 1988.</li> <li>• UNEP/MAP/IOC/WMO: Baseline studies and monitoring of oil and petroleum hydrocarbons in marine waters. UNEP/MAP: Athens, 1986.</li> <li>• Assessment of the state of pollution of the Mediterranean Sea by anionic detergents. MAP Technical Reports Series No. 110.</li> </ul>
<b>Used lubricating oil (luboil)</b>	<b>Status of implementation</b>
To formulate and adopt a standard on the maximum amount of PCB an oil may contain before it is considered	<ul style="list-style-type: none"> <li>• UNEP/MAP/MED POL: Plan for the management PCBs waste and nine pesticides for the Mediterranean Region. UNEP/MAP: Athens, 2004.</li> </ul>

to be contaminated (i.e. 50 mg/k).

<b>Physical alterations and destruction of habitats</b>	<b>Status of implementation</b>
To formulate guidelines for the preservation of habitats and normal ecosystem functions in coastal areas, particularly in the context of integrated coastal zone management.	<ul style="list-style-type: none"> <li>• UNEP/MAP Integrated Planning and Management of the Mediterranean Coastal Zones. Documents produced in the first and second stage of the Priority Action (1985-1986). Priority Actions Programme, Regional Activity Centre, Split, 1991.</li> <li>• UNEP/MAP: Promotion of soil protection as an essential component of environmental protection in Mediterranean coastal zones. Selected documents (1985-1987). Priority Actions Programme, Regional Activity Centre, Split, 1987.</li> </ul>
To develop programmes for integrated coastal zone management.	<ul style="list-style-type: none"> <li>• UNEP/MAP/PAP RAC: MAP Coastal Area Management Programme (CAMP) Slovenia: Final Integrated Report. MAP Technical Series No. 171, UNEP/MAP, Athens, 2008.</li> <li>• UNEP/MAP: MAP CAMP Project "Lebanon": Final Integrated Project Document. UNEP/MAP, Athens, 2005.</li> <li>• UNEP/MAP/PAP: MAP CAMP Project "Malta": Final Integrated Project Document and Selected Thematic Documents. UNEP/MAP: Athens, 2003.</li> <li>• UNEP/MAP/PAP: MAP CAMP Project "Israel": Final Integrated Report and Selected Documents. UNEP/MAP: Athens, 2001.</li> <li>• UNEP/MAP: MAP CAMP Project "Fuka-Matrouh", Egypt: Final Integrated Report and Selected Documents. (2 Vols.), UNEP/MAP: Athens, 2001.</li> <li>• UNEP/MAP: Iskenderun Bay Project. Volume II. Systemic and Prospective Analysis. Sophia Antipolis, 1994.</li> <li>• UNEP/MAP: Iskenderun Bay Project. Volume I. Environmental Management within the Context of Environment-Development. Blue Plan Regional Activity Centre, Sophia Antipolis, 1994.</li> <li>• UNEP/MAP: Integrated Management Study for the Area of Izmir. Regional Activity Centre for Priority Actions Programme, Split, 1994.</li> </ul>
<b>Monitoring</b>	<b>Status of implementation</b>
To prepare guidelines for <b>local air pollution monitoring programmes</b> in cities and urban agglomerations exceeding one million inhabitants.	<ul style="list-style-type: none"> <li>• UNEP/MAP/MED POL/WHO: Guidelines on environmental inspection systems for the Mediterranean region. UNEP/MAP: Athens, 2004.</li> <li>• UNEP/MAP/FAO/IAEA: Designing of monitoring programmes and management of data concerning chemical contaminants in marine organisms. UNEP/MAP: Athens, 1993</li> </ul>
To develop guidelines for river monitoring programmes.	<ul style="list-style-type: none"> <li>• UNEP/MAP/MED POL/WHO: Guidelines on environmental inspection systems for the Mediterranean region. UNEP/MAP: Athens, 2004.</li> </ul>
To promote the establishment of permanent registers of river	<ul style="list-style-type: none"> <li>• No information is available</li> </ul>

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quality and quantity accessible to all Parties for selected rivers (about fifty).

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To promote the establishment of a data bank on socio-economic indicators related to sea and river quality and pollutant fluxes associated with the Geographic Information System (GIS).

- No information is available

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To promote the establishment of an inventory of major point atmospheric sources following EMEP/CORINAIR guidelines.

- No information is available

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### **Capacity Building**

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**To support, promote and facilitate programmes of assistance in the area of scientific, technical and human resources.**

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To support the establishment of networks to improve the exchange of experience among Mediterranean experts, especially in the field of the priorities established in the SAP MED to prevent marine degradation.

- No information is available

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To formulate and support programmes of cooperation for capacity-building and the development of institutions, including relevant technology and management training, human resources (scientific and technical personal) and public education, etc.

- Report of the National Training course on Municipal Wastewater Treatment Plants Operation, Maintenance and Reuse, Damascus, Syria, 21-23 February 2011, EUDHP1003944/6.1.
- Report of the National Training course on Wastewater Treatment Plant Operation and Wastewater Reuse, Durres, Albania, 21-22 April 2011 EUALB1002831/28.1.
- Report of the Twelfth National Training course on Wastewater Treatment Plants Operation and Management, Podgorica, Montenegro, 24-26 November 2009, EUR/09/5086374.
- Report of the Eleventh National Training course on Municipal Wastewater Treatment Plants Management and Reuse of Wastewater, Damascus, Syria, 13-15 December 2009, EUR/09/5086619.
- Report of the Tenth National Training course on Municipal Wastewater Treatment Plants Operation, Maintenance and

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Reuse of Wastewater, Beirut, Lebanon, 20-22 October 2009, EUR/09/5086619.

- Report of the Ninth National Training course on Municipal Wastewater Treatment Plants Operation and Reuse of Wastewater, Ankara, Turkey, 30 June – 2 July 2009, EUR/09/5086618.
- Report of the Eighth National Training course on Municipal Wastewater Treatment Plants Operation and Reuse of Wastewater, Vlora, Albania, 25-27 May 2009, EUR/09/5086620/1.
- Report of the Seventh National Training course for Wastewater Treatment Plant Operation and Sludge Management, Beirut, Lebanon, 28-30 September 2005, EUR/05/5041704/7.
- Report of the Sixth National Training course for Wastewater Treatment Plant Operation and Management, Mugla, Turkey, 6-9 October 2004, EUR/04/5041704/6.
- Report of the Fifth National Training course for Wastewater Treatment Plant Operation and Management, Algiers, Algeria, 16-18 May 2004, EUR/04/5041704/5.
- Report of the Fourth National Training Course on Municipal Wastewater Treatment Plant Operation and Management, Damascus, Syrian Arab Republic, 20-23 July 2003, EUR/03/5041704/4.
- Report of the Third National Training course on municipal wastewater treatment, focusing on the use of natural systems, Tirana, Albania, 16-17 October 2002, EU/02/5041704/3.
- Report of the Second National Training Course on Municipal Wastewater Treatment Plant Operation and Management, Rijeka, Croatia, 15-18 October 2002, EUR/02/5041704/2.
- Report of the First National Training Course on Municipal Wastewater Treatment Plant Operation and Management, Tripoli, Libya, 12-15 May 2002, EUR/02/5041704/1.
- Report of the Regional Training Course for Trainers on Municipal Wastewater Treatment Plant Operation and Management, Athens, Greece, 16-20 October 2001, EUR/01/5022121/5.
- Report of the Regional Training course for Wastewater Treatment Plant Operators, Athens, Greece, 5-9 May 1998.
- Report of the Regional Training courses for Wastewater Treatment Plant Managers, Sophia Antipolis, France, 21-24 April 1999.
- Report of the National Training course for Wastewater Treatment Plant Operators, Alexandria, Egypt, 2-6 April 1999.
- Report of the National Training course for Wastewater Treatment Plant Compliance Inspection, Haifa, Israel, 27 Nov. – 2 Dec. 1999.

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To formulate and implement in the framework of MED POL capacity-building programmes related to the assessment and control of marine pollution.

- Report of the Fifth National training course on pollution monitoring and inspection, Nova Gorica, Slovenia, 18-20 November 2003, EU/03/5041703/5.
  - Report of the Fourth National training course on pollution monitoring and inspection, Teslic, Bosnia and Herzegovina, 29-31 October 2003, EU/03/5041703/4.
  - Report of the Third National training course on pollution monitoring and inspection, Opatija, Croatia, 29-31 October 2003, EU/03/5041703/3.
  - Report of the First and Second National training course on pollution monitoring and inspection, Tirana, Albania, 6-8 October 2003, EU/03/5041703/1.
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	<ul style="list-style-type: none"> <li>• Report of the First and Second National training course on pollution monitoring and inspection, Tirana, Albania, 9-11 October 2003, EU/03/5041703/2.</li> <li>• Report of the Regional “Train the trainers” course on pollution monitoring and inspection, Nicosia, Cyprus, 4-8 November 2002, EU/02/5041702/5.</li> </ul>
To assist in the formulation of projects eligible to be financed by international financial donors.	<ul style="list-style-type: none"> <li>• Task accomplished by MED POL</li> </ul>
To assist and advise on policies, strategies and practices that may contribute to the implementation of the measures and targets included in the SAP MED.	<ul style="list-style-type: none"> <li>• Task accomplished by MED POL</li> </ul>
To prepare a general manual with guidelines on urban policies directed towards energy saving, non-polluting forms of transport, waste management, the sustainable use of water and the creation of town amenities.	<ul style="list-style-type: none"> <li>• UNEP/MAP: Workshop on policies for sustainable development of Mediterranean coastal areas, Santorini Island, 26-27 April 1996. Presentation by a group of experts. UNEP/MAP: Athens, 1996.</li> <li>• UNEP/MAP/BLUE PLAN: Energy and Sustainable Development in the Mediterranean: Proceedings of the Regional Workshop, Monaco, 29 - 30 March 2007. MAP Technical Reports Series No. 167. UNEP/MAP, Athens, 2007.</li> <li>• UNEP/MAP/BLUE PLAN: Water demand management, progress and policies: Proceedings of the 3rd Regional Workshop on Water and Sustainable Development in the Mediterranean. Zaragoza, Spain, 19 - 21 March 2007. MAP Technical Reports Series No. 168. UNEP/MAP, Athens, 2007.</li> </ul>
To prepare a river monitoring manual by the year 2000.	<ul style="list-style-type: none"> <li>• UNEP/MAP/MED POL: Guidelines for river (including estuaries) pollution monitoring programme for the Mediterranean Region. UNEP/MAP: Athens, 2004.</li> </ul>
To prepare guidelines on linking socio-economic indicators to water quality indicators through GIS to check pollution control.	<ul style="list-style-type: none"> <li>• UNEP/MAP: MED POL Phase III. Programme for the Assessment and Control of Pollution in the Mediterranean Region (1996-2005). UNEP/MAP: Athens, 1998.</li> </ul>
<b>To support, promote and facilitate, as appropriate, the capacity to apply, develop and manage the access of cleaner production technologies as well as the Best Available Techniques (BAT) and the Best</b>	<b>Status of implementation CP/RAC filed of work ( to be completed later)</b>

<b>Environmental Practice (BEP)</b>	
To facilitate and promote access, in particular for countries in need of assistance, to new and innovative technologies relevant to each selected land-based source and activity, including those causing physical degradation and the destruction of habitats.	<p>The MED POL Programme organized in cooperation with other agencies numerous training courses for building capacities and competencies of representatives from public agencies involved in the protection of the Mediterranean Sea from pollution. Workshops were also organized to inform the public and non-governmental organizations. Training courses and workshops included:</p> <ul style="list-style-type: none"> <li>▪ Three training courses on water reclamation and reuse.</li> <li>▪ Fourteen training courses on Municipal Wastewater Treatment Plants Operation and Maintenance.</li> <li>▪ Four training courses for operators and managers of wastewater treatment plants.</li> <li>▪ Seven training courses on pollution monitoring and inspection.</li> <li>▪ Two workshops on sustainable development of Mediterranean coastal areas.</li> <li>▪ One training course on water demand management and policies.</li> </ul>
To promote new information technologies that facilitate the transfer of knowledge within countries and between States, including, in particular, from developed countries to countries in need of assistance.	<p>The MED POL Programme prepared in cooperation with other agencies and centres a number of technical guidelines as follows:<sup>2</sup></p> <ul style="list-style-type: none"> <li>▪ Six guidelines on municipal sewage and sludge treatment and disposal.</li> <li>▪ Two guidelines for the safe management of industrial wastewater for the Mediterranean region.</li> <li>▪ Two guidelines on wastewater use in irrigation.</li> <li>▪ One guideline for river pollution monitoring programme for the Mediterranean Region.</li> <li>▪ One guideline on safe management of coastal litter for the Mediterranean Region.</li> <li>▪ Two guidelines for the application of Best Available Techniques (BATs) and Best Available Practices (BEPs) in industrial sources of BOD, nutrients and suspended solids and for rational use of fertilisers and the reduction of nutrient loss from agriculture for the Mediterranean region.</li> <li>▪ One guideline on environmental inspection systems for the Mediterranean region.</li> </ul>
To prepare a general manual with guidelines on implementing cleaner technologies, cleaner production and cleaner materials.	<ul style="list-style-type: none"> <li>• UNEP/MAP/RAC/CP: Guidelines for the application of Best Available Techniques (BATs), Best Environmental Practices (BEPs) and Cleaner Technologies (CTs) in industries of the Mediterranean countries. UNEP/MAP: Athens, 2004.</li> </ul>
To prepare a general manual with guidelines on introducing alternatives to priority POPs.	<ul style="list-style-type: none"> <li>• Substitutes to be used as alternatives to 12 priority Persistent Organic Pollutants, Meeting of MED POL National Coordinators, Barcelona, Spain, 24-27 May 2005, UNEP(DEC)/MED WG.264/Inf.13.</li> </ul>
The establishment of networks to improve the exchange and transfer of environmentally sound technologies among	<ul style="list-style-type: none"> <li>• No information is available</li> </ul>

<sup>2</sup> Detailed information can be found in the document on "Assessment of the SAP Regional Activities" attached to the annex of this report.

Mediterranean experts, especially in the field of the priorities established in the SPA to prevent marine degradation.	
Enhance access to and transfer of patent-protected environmentally sound technology, in particular to developing countries.	<ul style="list-style-type: none"> <li>No information is available</li> </ul>
To promote collaborative arrangements between enterprises of developed and developing countries for the development of clean production technologies.	<ul style="list-style-type: none"> <li>No information is available</li> </ul>
To promote joint ventures between suppliers and recipients of technologies, taking into account policy priorities and objectives of developing countries.	<ul style="list-style-type: none"> <li>No information is available</li> </ul>
To assist and advise on environmental aspects of current technologies that may contribute to the implementation of the measures and targets included in the SAP MED.	<ul style="list-style-type: none"> <li>No information is available</li> </ul>
To assist and advise on the preparation of reports that are required for the LBS Protocol.	<ul style="list-style-type: none"> <li>Task accomplished by MED POL</li> </ul>
<b>Public Participation</b>	<b>Status of implementation</b>
To identify potential roles for Non-Governmental Organizations in the implementation of the SAP MED and to ensure that all relevant IGOs and NGOs have appropriate access to	<ul style="list-style-type: none"> <li>MEDPARTNERSHIP, H2020, UNEP/MAP decision on cooperation with the civil society, NGO involved in several activities with regards to pollution</li> </ul>

information concerning the SAP MED and its application;	
To implement coordinated information campaigns and special activities on environmental protection;	<ul style="list-style-type: none"> <li>• Further work is required to assess the work carried out on campaigns</li> </ul>
To continue and expand publication and distribution of brochures, leaflets, posters, reports, newsletters and other information materials, as well as the use of the media in all its forms;	<ul style="list-style-type: none"> <li>• MED Waves publication, other sectorial and integrated publications</li> </ul>
To enhance and strengthen the exchange of information and experience on the environmental problems of the region, and to develop cooperation in this field.	<ul style="list-style-type: none"> <li>• MED POL information system with data on levels and sources</li> </ul>
<b>Reporting</b>	<b>Status of implementation</b>
To prepare and apply a unified reporting system on the application of the provisions of the Convention, the Protocols and the SAP MED.	<ul style="list-style-type: none"> <li>• UNEP-MAP Decision IG 17/3. New Reporting Format for the Implementation of the Barcelona Convention and its Protocols. UNEP/(DEPI)/MED IG.17/10.</li> </ul>
To collect information on the levels and trends of loads of pollution reaching the Mediterranean Sea.	<ul style="list-style-type: none"> <li>• Country reports on the implementation of the LBS Protocol</li> </ul>
To collect information on the state of the treatment and the disposal of liquid and solid wastes in the Protocol Area and to present such information to the Contracting Parties.	<ul style="list-style-type: none"> <li>• UNEP/MAP/MED POL/WHO: Municipal wastewater treatment plants in Mediterranean coastal cities – Inventory of treatment plants in cities of between 2,000 and 10,000 inhabitants. MAP Technical Reports Series No. 169, UNEP/MAP, Athens, 2008.</li> <li>• UNEP/MAP/MED POL/WHO: Municipal wastewater treatment plants in Mediterranean coastal cities (II) UNEP/MAP: Athens, 2004.</li> <li>• UNEP/MAP/MED POL/WHO: Municipal wastewater treatment plants in Mediterranean coastal cities (II) UNEP/MAP: Athens, 2004.</li> <li>• UNEP/MAP/MED POL/WHO: Municipal Wastewater Treatment Plants in Mediterranean Coastal Cities. UNEP/MAP: Athens, 2000.</li> </ul>

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To publish a report on the State and Evolution of the Mediterranean Environment at regular intervals.

- Draft Transboundary diagnostic analysis for the Mediterranean sea, UNEP(OCA)/MED WG.130/3.
- (Revised) Draft Transboundary diagnostic analysis for the Mediterranean sea, UNEP(OCA)/MED IG.11/Inf.7

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To develop public tracking and reporting systems of pollutants, known generically as Pollutant Release and Transfer Register (PRTRs), in cooperation with OECD.

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- PRTR established for a number of Mediterranean Countries.

## **IV REGIONAL SYNOPSIS OF NAP IMPLEMENTATION**

**TO BE INSERTED UPON VALIDATION BY THE RESPECTIVE COUNTRIES**

## **V. NAP IMPLEMENTATION COUNTRY PROFILES**

**TO BE INSERTED UPON VALIDATION BY THE RESPECTIVE COUNTRIES**

## **VI. NAP IMPLEMENTATION COUNTRY FACT SHEETS**

**TO BE INSERTED UPON VALIDATION BY THE RESPECTIVE COUNTRIES**