EP

**United Nations
Environment
Programme**

MEDITERRANEAN ACTION PLAN

Regional meeting on PRTR and Pollution indicators

Ankara (Turkey), 16-17 June 2014

Ranked list of potential MEDPOL indicators
(ECAP-Marine Pollution Indicators/Regional Plans/NAP)

Delegates are kindly requested to bring their documents to the meeting

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I- INTRODUCTION

During 2013, the Secretariat in accordance with the MAP programme of work 2012-2013 developed the draft guidelines for updating NAPs that were adopted by the Contracting Parties between 2003-2005, in the framework of Article 5 of the LBS Protocol of the Barcelona Convention. The NAP update guidelines included a number of technical annexes regarding criteria for the assessment of hotspots, NAP follow-up and reporting indicators, etc.

Regarding the NAP follow up and reporting indicators in particular, Annex E of the NAP update guidelines provided a comprehensive list of potential indicators, which were consistent with regional and international reporting requirements. The criteria for listing the indicators included ECAP monitoring indicators, national pollutant load indicators (NBB), indicators related to the legally binding measures under the regional plans adopted by the Contracting Parties in the framework of Article 15 of the LBS Protocol, and relevant indicators elaborated under other policy frameworks such as MSSD, H2020 initiative, relevant MEA, etc.

At the meeting of the MEDPOL FP held on 26-28 March 2014 (Athens), the document "Draft Guidelines for Updating National Action Plans (NAPs)" (UNEP(DEPI)MED WG.394/4) was presented, reviewed and generally endorsed by countries, which were asked to provide inputs and comments regarding Annexes. On the other hand, the Secretariat was asked to undertake a priority exercise of the potential list of NAP follow up and reporting indicators taking into account a number of potential criteria including the mandatory nature of each of them, with the aim to obtain a shortlist of common NAP indicators for the region.

In this context, the present document represent the first effort to review the list of the potential NAP follow up and reporting indicators presented in Annex E of the NAP update guidelines, and propose criteria to prioritize them. The present document analyses this list and the methodology for the selection of criteria and a scoring system will be discussed during the meeting to be held 16-17 June 2014 (Ankara) in the framework of the SEIS project.

II- METHODOLOGY

The list of the potential proposed indicators for following up NAP implementation included in Annex E of NAP update guidelines (document UNEP(DEPI)MED WG.394/10) has been first checked against the following agreed indicators:

a) MAP effectiveness indicators adopted in COP 16
b) MAP reporting system adopted by COP 15
c) MSSD indicators, 2005
d) Indicators with regards to other relevant policy frameworks, mainly Horizon 2020 Initiative and IWRM (Integrated Water Resources Management)
e) Indicators agreed in the framework of relevant MEA.

Once a complete list of potential indicators is obtained, a selection process is undergone to shortlist a number of common indicators. In general, official indicators are selected based on a thematic approach as it facilitates the connection with the target and political processes, while providing a clear message to policy makers.

The list consists of a spreadsheet with all the potential indicators (rows) and contains the following fields (columns) for each of them: Indicator code, Indicator title, Units, SAP/NBB sector, Link to ECAP/Regional plans targets, Link to other policy frameworks, Type of indicator (D = Driving force, P = Pressure, S = State, I = Impact, R = Response), Description, Data source, Criteria and Total.

In general, according to the selection criteria used for the Sustainable Development Indicators of the United Nations Commission on Sustainable Development (UN-CSD)[1] an indicator has to be:

- Conceptually well founded.
- Understandable (clear, simple and unambiguous).
- Based on data that is readily available or available at a reasonable cost, adequately documented, of good quality and updated at regular intervals.
- Within the capacities of the governments to implement, given logistics, time, technical and other constraints.

For this purpose, the listed potential indicators are prioritized based on the methodology from Plan Bleu RAC of UNEP/MAP. A criterion on the mandatory nature of the indicator within MAP framework has also been included. The criteria for each indicator is classified into four main areas:

a) Mandatory nature
b) Relevant
c) Measurable
d) Understandable

Mandatory nature: Not Mandatory=0; Overall objective (Mandatory but not legally binding)=1; Legally binding=2

- <u>Legally binding indicators</u> can be those related to requirements or measures established by the Barcelona Convention, Protocols, Regional plans adopted in the framework of Article 15 of the LBS Protocol.

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[1] UNDESA, 2007. Indicators of Sustainable Development: Guidelines and Methodologies, 3rd Edition. http://www.un.org/esa/sustdev/natlinfo/indicators/guidelines.pdf

- <u>Overall objective</u>: those indicators that track the achievement of a related objective/target, e.g. from non legally binding regional plans or SAP MED, ECAP indicators or MAP effectiveness indicators that have been adopted or approved by COP but are not strictly legally binding by themselves.
- <u>Non mandatory</u> indicators but smart and useful for assessment purposes.

Relevant. For each of the single criterion:

- Meaningful: indicators closely linked to the related objectives/targets.
- Applicable to different regions or scales.
- Conceptually sound.
- Responsive to change.
- Useful to decision makers.

The following score is assigned:
"0" (= does not meet the criteria) ,
"1" (= more or less meets the criteria) or
"2" (= meets the criteria)

Measurable. For each of the single criterion:

- Based on data readily available
- Cost-effective

The following score is assigned:
"0" (= does not meet the criteria) ,
"1" (= more or less meets the criteria) or
"2" (= meets the criteria)

For each indicator, a total score is deducted from 0 to 18, with a score of 18 meaning that the indicator perfectly meets all the criteria.

The list of 51 potential indicators analyzed in this context based on the above criteria is presented in the next section. The Secretariat has completed the columns related to title, description, type of the indicator as well as the scoring for the criteria related to mandatory nature of the indicators. The participants of the meeting are expected to undertake a scoring analysis with regards to the other proposed criteria during the meeting.

III. LIST OF INDICATORS

Indicator code	Indicator title	Units	SAP/NBB sector	Link to ECAP/Regional Plans Targets	Link to other policy framework	Type	Description	Data source	Mandatory nature	RELEVANT					MEASURABLE		Understandable	TOTAL / 18
										Meaningful	Applicable to different scales	Conceptually sound	Responsive to change	Useful to policy makers	based on data readily available	Cost-effective		
WW_01	Share of population with access to wastewater tretament	%	Municipal sewage	BODWWT_RP, ML_RP,	MSSD, H2020	S	The percentage (%) of the population connected to sewers, which are in turn connected to wastewater treatment facilities out of the total number of the resident population and out of the number of the population connected to a wastewater collecting system (sewage network). The wastewater collecting system (public sewage) may deliver wastewater to tr eatment plants or may discharge it without treatment to the environment.		2									2
WW_02	Volume of polluted (non- treated) wastewater	million m^3 per year	Municipal sewage	BODWWT_RP, ML_RP,	MSSD, H2020	S	The indicator defines the share of non treated or non sufficiently treated wastewaters that were discharged into water bodies in the total volume of wastewaters generated in the country in a given year.		2									2
WW_03	Wastewater treatment facilities (Capacity of wastewater treatment facilities and efficiency of treatment)	1. Units of facilities, 2. Capacity of treatment and volumes treated in million m^3 per year, 3. Amount of pollutants in wastewater discharges and amount of pollutants removed at wastewater treatment facilities in thousand ton s of BOD5 per year.	Municipal sewage	BODWWT_RP, ML_RP	MSSD, H2020	R	1. Number of wastewater treatment facilities: total and broken down by the level of treatment; 2. Designed (nominal) capacity and actual volumes of treated was tewater: total and broken down by the level of treatment (mechanical/primary, bio logical/secondary, and advanced/tertiary), and/or by the type of operator (public, other operators, independent/septic tanks), 3. Total national waterborne emissi ons and emissions removed by waste water treatment facilities. If available, the data on designed (nominal) capacity should be replaced by data on real (actual) capacity in order to measure real efficiency of treatment facilities.		1									1
MW_01	Municipal waste generation	kg per capita per year	Municipal solid waste	ML_RP	MSSD, H2020	P	The indicator presents municipal waste generation, expressed in kg per capita per year. "Municipal waste" refers to waste collected by or on behalf of municipalities; the main part originates from households, but similar wastes from commerce and trade, office buildings, institutions and small businesses is also included.		2									2
MW_02	Amount of collected municipal waste.	kg per year	Municipal solid waste	ML_RP	H2020	R	"Municipal waste" refers to waste collected by or on behalf of municipalities; the main part originates from households, but similar wastes from commerce and trade, office buildings, institutions and small businesses is also included.		2									2
MW_03	Amount of treated municipal waste.	kg per year	Municipal solid waste	ML_RP	H2020	R	Amount "municipal waste" collected and treated. The type of treatment includes landfilling, recycling and incineration.		2									2
MW_04	Share of population served by waste collection service (collection rate).	%	Municipal solid waste	ML_RP	H2020	S	It presents the share of population served by "municipal waste" collection scheme		2									2
MW_05	Share of recycled, composted, incinerated or landfilled municipal waste with respect to collected amount.	%	Municipal solid waste	ML_RP	H2020	R	Recycling is defined as any reprocessing of material in a production process that diverts it from the waste stream, except reuse as fuel. Composting is considered as part of recycling. Incineration means thermal treatment of waste in an incineration plant. Landfilling refers to the final placement of waste into or onto the land in a controlled or uncontrolled way. The definition covers both landfilling in internal sites and in external sites.		2									2
MW_06	Share of generated municipal waste per waste composition category: Paper, paperboard; Textiles; Plastics; Glass; Metals; Other inorganic material; Organic material	%	Municipal solid waste	ML_RP	H2020	P	It measures the amount of collected municipal waste per composition category.		2									2

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MW_07	Number of open dump sites/controlled landfills.	Units	Municipal solid waste	ML_RP	H2020	S	In this context, we distinguish between: Open dump sites/non-sanitary/uncontrolled landfill defined as uncontrolled deposit of waste into or onto land. Sanitary/controlled/engineered landfill, refers to a controlled waste (refuse) disposal site on land, whose operation is submitted to a permit system and to technical control procedures (e.g. facilities like impermeable liners, leachate collection systems) in compliance with the national legislation in force.		2									2
MW_08	Location of landfills (open dump sites and controlled landfills).	Location	Municipal solid waste	ML_RP	H2020	S	It provides detail on the location of landfills (dump sites and controlled landfills).		2									2
MW_09	Share of existing illegal solid waste dumpsites on land that have been closed with respect to the total number.	%	Municipal solid waste	ML_RP	H2020	R	It presents the share of open dump sites/non-sanitary/uncontrolled landfill defined as uncontrolled deposit of waste into or onto land that have been closed.		2									2
MW_10	Amounts of marine litter washed ashore and/or deposited on coastlines, including analysis of its composition, spatial distribution and, where possible, source.	kg per year	Municipal solid waste. Physical alteration and destruction of habitats	ECAP target, ML_RP		S	It measures the amounts of marine litter washed ashore and/or deposited on coastlines, including analysis of its composition, spatial distribution and, where possible, source.		2									2
MW_11	Amounts of marine litter items in the water column (including floating at the surface) and deposited on the seafloor, including analysis of its composition, spatial distribution and, where possible, source.	kg per year	Municipal solid waste. Physical alteration and destruction of habitats	ECAP target. ML_RP		S	It measures the amounts of marine litter items in the water column (including floating at the surface) and deposited on the seafloor, including analysis of its composition, spatial distribution and, where possible, source.		2									2
MW_12	Amounts of marine litter ingested by or entangling marine organisms, especially mammals, marine birds and turtles, and, where possible, composition (e.g. stomach analysis).	kg per year	Municipal solid waste. Physical alteration and destruction of habitats	ECAP target. ML_RP		S	It measures the amounts of marine litter ingested by or entangling marine organisms, especially mammals, marine birds and turtles, and, where possible, composition (e.g. stomach analysis).		2									2
MW_13	Amount, distribution and, where possible, composition of micro-particles (in particular micro-plastics)	kg per year	Municipal solid waste. Physical alteration and destruction of habitats	ECAP target. ML_RP		S	It represents the amount, distribution and, where possible, composition of micro-particles (in particular micro-plastics)		2									2
AIR_01	Releases of atmospheric pollutants (SO$_2$, NOx, NH3, VOC, hydrocarbons, CO, CH$_4$, fine particulates, POPs, heavy metals).	kg per year	Urban air pollution, industrial development	LBS Protocol		P	This indicator presents information on atmospheric pollutants annual emissions reported from stationary sources and mobile sources in the Mediterranean Sea area (based on NBB, E-PRTR)		2									2
AIR_02	Number or share of days during a year when air pollution levels (particulate matter 10 (PM10), sulphur dioxide (SO2), nitrogen dioxide (NO2) and ground-level ozone (O3)) exceed the established limit values in urban areas with regular observations of air quality.	Units or %	Urban air pollution			S	It measures the number or share of days during a year when air pollution levels (particulate matter 10 (PM10), sulphur dioxide (SO2), nitrogen dioxide (NO2) and ground-level ozone (O3)) exceed the established limit values (maximum allowable annual and short-term concentrations (MACs)) in urban areas with regular observations of air quality.		1									1

Indicator code	Indicator title	Units	SAP/NBB sector	Link to ECAP/Regional Plans Targets	Link to other policy framework	Type	Description	Data source	Mandatory nature	RELEVANT					MEASURABLE		Understandable	TOTAL /18
										Meaningful	Applicable to different scales	Conceptually sound	Responsive to change	Useful to policy makers	based on data readily available	Cost-effective		
AIR_03	Share of urban population (i.e. the total number of people living in urban areas with at least one monitoring station) in a country exposed to air pollution above the established limit values	%	Urban air pollution			S	It represents the share of urban population (i.e. the total number of people living in urban areas with at least one monitoring station) in a country/administrative region exposed to air pollution above the established limit values;		1									1
AIR_04	Values of concentration of pollutants in the air.	µg or ng, as appropriate for a particular pollutant in m^3 of air.	Urban air pollution			S	It measures the absolute values of concentration of pollutants in the air.		1									1
POP_01	Identified stockpiles consisting of or containing POPs[2].	kg per year	Industrial development	POPs_RP	Stockholm Convention	P	It measures the amount of stockpiles consisting of or containing POPs		2									2
POP_02	Concentration of POPs in air, blood, breast milk, plasma, serum.	pg/m^3	Industrial development		Stockholm Convention (Global Monitoring Plan)	S	It represents the concentration of POPs in air, blood, breast milk, plasma, serum.		0									0
IND_01	Number of substances covered by national standards (ELV) for point source discharges into water or air.	Units	Industrial development		MAP effectiveness indicator adopted by COP16	R	It measures the number of substances covered by national standards (ELV) for point source discharges into water or air.		1									1
IND_02	Number of substances covered by the national monitoring programme and reported.	Units	Industrial development		MAP effectiveness indicator adopted by COP16	R	It measures the number of substances covered by the national monitoring programme and reported.		1									1
IND_03	Share of the total number of compliance reports to national standards for atmospheric emissions and solid emissions with respect to the total number of reports.	%	Industrial development		MAP effectiveness indicator adopted by COP16	S	It measures the share of compliance reports to national standards for atmospheric emissions and solid emissions with respect to total number of reports.		1									1
IND_04	Share of companies within the Annex I of LBS Protocol applying Cleaner Production, Best Available Techniques and Best environmental Practices.	%	Industrial development		MAP effectiveness indicator adopted by COP16	R	It represents the share of companies within the Annex I of LBS Protocol applying Cleaner Production, Best Available Techniques and Best environmental Practices with respect to the total number of companies		1									1
IND_05	Releases of toxic substances from industrial sectors: PAH, VOC, PCDD/PCDF, Hexachlorobenzene, Cadmium, Chromium, Lead and Mercury into air, water and soil.	kg/year	Industrial development	Hg_RP, POPs_RP	Stockholm Convention, H2020	P	This indicator presents information on toxic susbtance annual releases reported from point sources in the Mediterranean Sea area (land based sources/coastal zone) per administrative region (based on NBB, E-PRTR)		2									2
IND_06	Release of nutrients from industrial sectors: BOD5, Total nitrogen, Total phosphorus.	kg/year	Industrial development	BOD5FS_RP	H2020	P	This indicator presents information on nutrient annual releases reported from point sources in the Mediterranean Sea area (land based sources/coastal zone) per administrative region (based on NBB, E-PRTR)		2									2
IND_07	Industrial waste generation	Thousand tons per year; Tons per unit of GDP at purchasing power parity (PPP) at constant prices in international dollars	Industrial development		MEDPOL indicator	P	The amount of waste generated in a country per year – in total, by economic sectors, per unit of GDP, etc.		0									0

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										Meaningful	Applicable to different scales	Conceptually sound	Responsive to change	Useful to policy makers	based on data readily available	Cost-effective		
IND_08	Share of recycled, composted, incinerated or landfilled industrial waste with respect to total amount.	%	Industrial development		MEDPOL indicator	R	Recycling is defined as any reprocessing of material in a production process that diverts it from the waste stream, except reuse as fuel. Composting is considered as part of recycling. Incineration means thermal treatment of waste in an incineration plant. Landfilling refers to the final placement of waste into or onto the land in a controlled or uncontrolled way. The definition covers both landfilling in internal sites and in external sites.		0									0
ECAP_01	Concentration of key harmful contaminants in biota, sediment or water with respect to defined GES (chemical status and biological effects)	ppm, ppb	Industrial development	ECAP targets/LBS Protocol	H2020	S	It measures the concentration of key harmful contaminants in biota, sediment or water in the Mediterranean area. Priority contaminants as listed under the Barcelona Convention and LBS Protocol. Concentrations of specific contaminants below EACs or below reference concentrations.		2									2
ECAP_02	Levels of known harmful contaminants in major types of seafood.	ppm	Industrial development	ECAP targets/LBS Protocol		S	It measures the levels of known harmful contaminants in major types of seafood in the Mediterranean area. Priority contaminants as listed under the Barcelona Convention and LBS Protocol. Concentrations of contaminants are within the regulatory limits set by legislation.		2									2
ECAP_03	Levels of contaminants that have been detected and number of contaminants which have exceeded regulatory levels in commonly consumed seafood	ppm/units	Industrial development	ECAP targets/LBS Protocol		S	It presents the number of contaminants which have exceeded regulatory levels in commonly consumed seafood and the concentrations detected for all of them.		2									2
ECAP_04	Number of acute pollution events with a cause-effect relationship established	units	Industrial development	ECAP targets		S	It describes the occurrence, origin (where possible), extent of significant acute pollution events (e.g. slicks from oil, oil products and hazardous substances) and their impact on biota affected by this pollution.		1									1
ECAP_05	Concentration of key nutrients in the water column in transitional, coastal and marine waters of the Mediterranean sea	mg/l	Industrial development	ECAP targets	H2020	S	Concentration of key nutrients in the euphotic layer (phosphates, nitrates, nitrites, total phosphorus and total nitrogen). Reference nutrients concentrations according to the local hydrological, chemical and morphological characteristics of the un-impacted marine region.		1									1
ECAP_06	Large scale changes in circulation patterns, temperature, pH, and salinity distribution	Units	Physical alteration and destruction of habitats	ECAP targets		S	Large scale changes in circulation patterns, temperature, pH, and salinity distribution		1									1
BW_01	Microbiologic bathing water quality based on Intestinal enterococci	cfu/100 mL		Criteria and standards on Bathing Water Quality/LBS Protocol		S	Microbial Water Quality Assessment based on Intestinal enterococci (cfu/100 mL) of bathing waters in the Mediterranean area		2									2
BW_02	Microbiologic bathing water quality based on Escherichia coli	cfu/100 mL		Criteria and standards on Bathing Water Quality/LBS Protocol		S	Microbial Water Quality Assessment based on Escherichia coli (cfu/100 mL) of bathing waters in the Mediterranean area. Parameter not included in the Decision on bathing water quality but considered by Directive 2006/7/EC.		2									2
BW_03	Share of bathing water profiles categorized as A (Excellent quality), B (Good quality), C (Sufficient) and D (Poor quality) with respect to total bathing profiles.	%		Criteria and standards on Bathing Water Quality/LBS Protocol		R	Share of bathing water profiles categorized as A (Excellent quality), B (Good quality), C (Sufficient) and D (Poor quality) with respect to total bathing profiles.		2									2
HW_01	Amount of hazardous waste generated by Y categories.	ton/year	Industrial development	Hazardous waste protocol	MAP reporting system. H2020	P	It presents the total hazardous waste generated and hazardous waste generated classified into Y categories.		2									2

Indicator code	Indicator title	Units	SAP/NBB sector	Link to ECAP/Regional Plans Targets	Link to other policy framework	Type	Description	Data source	Mandatory nature	RELEVANT					MEASURABLE		Understandable	TOTAL / 18
										Meaningful	Applicable to different scales	Conceptually sound	Responsive to change	Useful to policy makers	based on data readily available	Cost-effective		
HW_02	Amount of hazardous waste imported, by Y categories and by disposal/recovery operation.	ton/year	Industrial development	Hazardous waste protocol	MAP reporting system. H2020	P	It presents the hazardous waste imported per country, by Y categories and by disposal operation (D code, Annex IV A of BC) or recovery operation (R code, Annex IV B of BC) .		2									2
HW_03	Amount of hazardous waste exported, by Y categories and by disposal/recovery operation	ton/year	Industrial development	Hazardous waste protocol	MAP reporting system. H2020	P	It presents the hazardous waste exported per country, by Y categories and by disposal operation (D code, Annex IV A of BC) or recovery operation (R code, Annex IV B of BC) .		2									2
HW_04	Number of national analytical standard procedures to determine the toxicity of specific waste streams or waste constituents elaborated.	Units	Industrial development	Hazardous waste protocol	MAP reporting system	R	It measures the number of national analytical standard procedures to determine the toxicity of specific waste streams or waste constituents elaborated.		2									2
HW_05	Number of illegal shipments prevented from being exported.	Units	Industrial development	Hazardous waste protocol	MAP reporting system	R	It measures the number of illegal hazardous waste shipments prevented from being exported.		2									2
HW_06	Number of shipments taken back by the exporter or otherwise disposed of.	Units	Industrial development	Hazardous waste protocol	MAP reporting system	R	It measures the number of shipments taken back by the exporter or otherwise disposed of.		2									2
HW_07	Number of illegal trafficking cases reported to the Secretariat.	Units	Industrial development	Hazardous waste protocol	MAP reporting system	R	It measures the number of illegal trafficking cases reported to the Secretariat.		2									2
HW_08	Number of cases reported and solved.	Units	Industrial development	Hazardous waste protocol	MAP reporting system	R	It measures the number of cases reported and solved.		2									2
HW_09	Number of illegal shipments punished under national or domestic legislation.	Units	Industrial development	Hazardous waste protocol	MAP reporting system	R	It measures the number of illegal shipments punished under national or domestic legislation.		2									2
NAP_01	Number of NAP projects funded	Units	Industrial development		MAP effectiveness indicator adopted by COP16	R	Number of NAP projects funded		1									1
NAP_02	Number of NAP projects operating	Units	Industrial development		MAP effectiveness indicator adopted by COP16	R	Number of NAP projects funded		1									1
NAP_03	Number of NAP projects in process	Units	Industrial development		MAP effectiveness indicator adopted by COP16	R	Number of NAP projects funded		1									1