



**UNITED  
NATIONS**

**EP**

UNEP(DEPI)/MED WG.401/Inf.3

---



**UNEP**



**UNITED NATIONS  
ENVIRONMENT PROGRAMME  
MEDITERRANEAN ACTION PLAN**

8 September 2014  
Original: English

---

4th Meeting of the EcAp Coordination Group

Athens, Greece, 9-10 October 2014

**Report of the Correspondence Group on Monitoring, Pollution and Litter**

For environmental and economic reasons, this document is printed in a limited number. Delegates are kindly requested to bring their copies to meetings and not to request additional copies.



# United Nations Environment Programme



UNEP(DEPI)/MED WG.394/7  
20 May 2014

ENGLISH



## MEDITERRANEAN ACTION PLAN

Correspondence Group on Monitoring, Pollution and Litter

Athens (Greece), 8-9 May 2014

### Report of the Correspondence Group on Monitoring, Pollution and Litter



## **Table of contents**

### **Report**

**Annex I** Final Recommendations

**Annex II** Agenda

**Annex III** List of Participants



## Introduction

The Correspondence Group on Monitoring, Pollution and Litter was held in Athens, Greece on the 8-9 May 2013, pursuant to the actions taken since the last Conference of the Parties (COP 18) and the last meeting of the Integrated Correspondence Group under the Ecosystem Approach. The aim of the CORMON Pollution and Litter meeting thus was to a) discuss the options laid out in the Secretariat Monitoring Guidances in order to find the best cost-effective and scientifically mature way of monitoring the common indicators of the pollution and litter cluster; b) follow-up on the recommendations of the Integrated CorGest Group on monitoring, targeting specifically pollution and litter; c) to give specific, more detailed monitoring related recommendations on the common indicators of the pollution and litter cluster; d) give recommendations, regarding EOs/indicators, which are not mature enough yet, but on which scientific developments and work in other International Bodies would suggest to include them already in early discussions.

## Participation

1 The meeting was attended by 46 Participants from the following Contracting Parties: Albania, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, European Union, France, Greece, Israel, Italy, Lebanon, Montenegro, Morocco, Slovenia, Spain, Turkey.

2 The Barcelona Convention Secretariat, including the MED POL Programme (MED POL), as well as the Priority Actions Programme Regional Activity Centre (PAP/RAC), the Specially Protected Areas Regional Activity Centre (SPA/RAC), the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC).

3 The following institutions and organizations were represented by observers: the Hellenic Marine Environment Protection Association (HELMEPA), The International Atomic Energy Agency (AIEA), the Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE) and the EUCC Mediterranean Center (EUCC).

4 The list of participants is attached as Annex III to this report.

## Agenda Item 1: Opening of the Meeting

5 The meeting was opened at 9.00 a.m. on 8 May 2014 by the Executive Secretary of the Secretariat of the Barcelona Convention-UNEP/MAP (Ms. Maria Luisa Silva Mejias). She briefly reviewed the progress achieved since the COP 17 held in Paris in 2012, with highlighting the achievements of COP18 (December 2013, Istanbul) as milestones for the EcAp process, by specifying GES and targets in relation to the specific indicators of the agreed 11 Ecological Objectives, as well as laying out a roadmap up to COP19 on agreeing an Integrated Monitoring and Assessment Programme, which, for the first time, in the Mediterranean will result in a quantitative monitoring, common for the whole region. Ms Silva Mejias also thanked the participants and stressed the importance of taking action to protect the Mediterranean by strengthening sustainability, enhancing effectiveness of the measures adopted, establishing a rigorous management cycle, facilitating communication and action and consolidating a common management strategy. She also recalled that this meeting opened the process leading up to an Integrated Monitoring and Assessment Programme for the Mediterranean, by reviewing major elements of an environmental monitoring possible parameters for eutrophication, marine litter and contaminants building on the common indicators that have been selected as the most mature ones at the February Integrated CorGest Meeting, based on the list of adopted integrated list of indicators at the last COP meeting in 2013 (COP18, Istanbul).

**Agenda Item 2-3: Scope and purpose of the meeting and election of officers and adoption of the agenda**

6 Ms Maria Luisa Silva Mejias pointed out that the overall scope and purpose of the meeting was to discuss and agree on the parameters related to the common indicators that have been adopted in the last COP meeting and to tackle in more details these indicators and main features needed.

7 Following the short introduction, the meeting elected its officers as follows:

Chairperson:	Mr Jose Luis Buceta Miller (Spain)
Vice-Chairpersons:	Mr Samir Yousry (Morocco) Mr. Marco Matiddi (Italy)
Rapporteur:	Ms Andreja Palatinus (Slovenia)

8 Under Any Other Business, the EUCC Mediterranean Center, asked for the opportunity to present key outcomes of the last meeting of the EU Mediterranean countries on their coordination of monitoring approaches under the Marine Strategy Framework Directive, with a focus on marine litter. The Contracting Parties welcomed her reflections to be made under Agenda point 6, to which they found it the most relevant.

9 The meeting adopted the agenda set out in UNEP(DEPI)/MED WG 394/3.

**Agenda Item 4: General introduction of the Monitoring guidance and process ahead on EcAp monitoring**

10 The Secretariat gave a presentation on the overall EcAp process as well as the ongoing work. It was recalled that at the last meeting in February, the experts decided to agree on common indicators in order to focus on areas with the most data and experience (most mature, so called common indicators to be core of the initial phase of the common monitoring under EcAp). She also mentioned that this meeting is the first of three meetings of the Monitoring Correspondence Groups, starting with Pollution and Litter.

11 After the general presentation, the Secretariat introduce in more details the structure, content and logic behind the decision to elaborate the Monitoring Guidance documents.

12 The Secretariat specified also the status of the Monitoring Guidance documents which are considered as living documents focusing on monitoring and addressing the specific needs of the Mediterranean. The presentation provided a good basis for discussion, which resulted in specific recommendations regarding the general monitoring approach under EcAp (See Recommendations of the Meeting in Annex I).

13 In addition, one Contracting Party raised concern on the title of the document "Ecological Objective" since the human health is also taken into consideration. In response, the Secretariat recalled that the title has been adopted by the Contracting Parties at their last COP meeting at the highest level and for this reason; it is not possible to change it at this time. However, the description of the Ecological Objectives and Indicators in the Guidance Document can accommodate in this regard and ensure there is an alignment with scientific reality.

14 Furthermore, a Contracting Party also recommended a revision of the definitions of some of the common indicators following the comments made during the meeting. The Party further specified that the key nutrients list does not include micronutrients (of both natural and anthropogenic source) which have a large effect on the marine environment, for example iron from seawater desalination activities. The dissolved oxygen indicator is related only to

the near bottom, while this should be flexible to the whole water column. Water transparency should be defined so it includes turbidity and total suspended particulate concentration, which includes the phytoplankton density.

15 Following a proposal by one Contracting Party that emphasized the need to consolidate the various existing common indicators among different international instruments in the Mediterranean such as OSPAR and to have accurate data from Contracting Parties and it was agreed to establish specific expert groups in this regard (See Recommendation of the Meeting in Annex I).

16 In addition, a Contracting Party highlighted the importance to have active and frequent (minimum once a year) participation in QA processes, interlink between the results of the intercalibration exercises and the data that is reported to MEDPOL. In addition the Party also stated that a review and a compilation of a table of parameters should be included in intercalibration exercises in view of the GES indicators.

17 A Contracting Party further mentioned the importance of discussing assessment methodologies in order to design better the monitoring program, and ensure that all related indicators are monitored according to the assessment plan. The Contracting Party also recalled the importance of considering the application of several types of sensors and autonomous vehicles, especially in view of their intensive application and data collection in recent years.

#### **Agenda item 5: Monitoring Guidance discussions in relation to contaminants**

18 The Secretariat introduced document UNEP (DEPI)/MED WG. 394/5 on the Monitoring Guidance on Ecological Objective 9 common indicators. The Contracting Parties stressed the need to provide more flexibility in the monitoring frequency and agreed on specific periods – in light of the need of ensuring coherence among Contracting Parties. In this framework, it was also agreed to apply a “de minimis approach” to all Contracting Parties in order to ensure coherence (See Recommendations of the Meeting in Annex I)

19 In addition, the representative of IAEA-MEL stressed the importance of a consistent participation of Contracting Parties in intercalibration exercises in order to ensure quality assurance and enhance their national designated pollution monitoring laboratories. For this purpose, the need for more frequent intercalibration exercises was pointed out.

20 For monitoring purposes, one Contracting Party suggested to extend the scope of bathing water in marine areas. The Secretariat recalled the ongoing bathing water quality monitoring under WHO/MED POL and which would be continuing under ECAP.

21 In addition, one Contracting Party stressed the need to consider that monitoring of contaminants in offshore areas where risk warrants coverage should not be covered within the framework of the monitoring network of the National Monitoring Programme but to be covered by the competent authorities developing these activities (in some cases private companies), making available to assess the GES

#### **Agenda item 6: Monitoring Guidance in relation to Marine Litter/ Ecological Objective 10**

22 The Secretariat presented document UNEP (DEPI)/MED WG. 394/6 the Draft Guidance on Marine Litter Monitoring. The EUCM Mediterranean Center presented key outcomes of the last meeting of the EU Mediterranean countries on their coordination of



monitoring approaches under the Marine Strategy Framework Directive, with a focus on marine litter held in Athens on 6-7 May 2014.

23 Following the presentation, the meeting embarked on a discussion and provided specific recommendations which are summarized in Annex I to this report.

24 In addition, it was also requested to further describe entangling litter in the relevant draft Monitoring Guidance.

25 Furthermore, the importance of Citizen Initiatives for the monitoring of marine litter was discussed.

**Agenda Item 7: Monitoring Guidance in relation to Eutrophication/ Ecological Objective 5**

26 The Secretariat introduced document UNEP (DEPI)/MED WG. 394/4 on the specific draft Guidance on the topic. The Contracting Parties shared their comments, recommendations, which can be found in the Recommendations of the Meeting in Annex I.

27 In addition,

- A Contracting Party mentioned the importance of allowing for oxygen measurements at various depths;
- A Contracting Party suggested a paragraph on new technologies that are applicable in this domain;
- A Contracting Party specified that the eutrophication topic excludes changes in nutrient fluxes that may lead towards higher oligotrophic levels and a change in the ecological characteristics;
- A Contracting Party highlighted that in some of the aspects there is a need to reevaluate the thresholds (eg. Chlorophyl a) based on existing data.

**Agenda item 8: Key recommendations of the Correspondence Group on Monitoring, Pollution and Litter**

28 The Participants discussed the key recommendations of the meeting (as laid out in Annex I, Recommendations of the Meeting).

**Agenda item 9: Any Other Business**

29 Under this agenda item, the EUCC Mediterranean Center asked for the opportunity to present key outcomes of the last meeting of the EU Mediterranean countries on their coordination of monitoring approaches under the Marine Strategy Framework Directive, which have been finally presented under the Agenda Item 6 as agreed by the Contracting Parties, describing the discussion of the EU MED countries on marine litter, aiming for closer cooperation between EU countries in their MSFD monitoring implementation efforts, with their monitorings already starting this year. The EcAp common indicators were found as a good basis of common approach also in this regard.

**Agenda item 10: Closure of the meeting**

30 The Chairperson, Mr Jose Luis Buceta Miller closed the meeting at 16.45 hours on 9<sup>th</sup> May 2014.

## **Annex I**

### **Recommendations of the Meeting**



***General recommendations of the EcAp CORMON Pollution and Litter for the future work of the CORMONs and the development needs of the Draft Monitoring Guidance (including General Monitoring Guidance and specific Guidances on Contaminants, Eutrophication and Marine Litter):***

- Quality assurance, as key for all common indicators to be further highlighted in the Draft Monitoring Guidance;
- The Mediterranean specifics to be further addressed in the draft introductory technical guidance document, with an emphasis on specific pressures increasing in the Mediterranean i.e. offshore activities, NIS, and links with fisheries management as well as importance of Mediterranean with respect to biodiversity;
- Ensure monitoring under the EcAp Barcelona Convention do not duplicate existing reporting obligations of the Contracting Parties (CPs) and this regard future CORMONs to take into account reporting obligations, data-collection specifics in their future work;
- Further address assessment specifics in the upcoming CORMON meetings and clarify more the integrated nature of the planned Integrated Monitoring and Assessment Programme in the Draft Monitoring Guidance, with a specific focus on biodiversity;
- Establish specific expert groups, if possible, with volunteering lead countries and in an electronic format, for contaminants, eutrophication and marine litter, with the mandate of further developing thresholds and assessment criteria for GES already agreed at COP18;
- Add a further Chapeau on the process leading up to the current proposal of the Draft General Monitoring Guidance and list bibliographic references at the end of each Draft Guidance;
- Further highlight in the Draft Monitoring Guidance new and cost-effective methodologies based on Contracting Parties' best practices and outcomes of relevant research projects;
- In order to ensure integration of topics in an early stage, share the current recommendations with the upcoming CORMON expert groups.

***Specific recommendations of the EcAp CORMON Pollution and Litter for the future work of the CORMONs and the development needs of the Draft Monitoring Guidance on EO9 (Contaminants):***

- Throughout the guidance make clearer difference between indicators related to environmental and human health effects;
- Sediments monitoring frequency was proposed to be possibly extended to every 4-5 years in case of low sedimentation rates;
- Inclusion of PAH monitoring in biota (mussels) and acidification through pH measurements;
- Regarding pre-spawning period, note that it is not applicable for fish;
- TBT monitoring to be carried out in sediments and/or biota;
- All types of pollutants to be part of the quality assurance;
- Reflect on the challenges for monitoring in seawater, and to state that it would be for the Parties to define when they would need to carry out monitoring in seawater.

***Specific recommendations of the EcAp CORMON Pollution and Litter for the future work of the CORMONs and the development needs of the Draft Monitoring Guidance on EO10 (Marine Litter):***

- Further specify de minimis elements and ideal monitoring elements for common indicators monitoring related to marine litter;

- Further specify throughout the draft Guidance the importance and available voluntary schemes, such as citizen science support initiatives, noting importance of awareness raising in this regard and efficient use of data collected through these initiatives;
- Regarding beach litter specify as de minimis frequency of monitoring twice a year monitoring (Spring/Autumn) and as ideal frequency four times a year (every season);
- Regarding beach litter monitoring, one section of coastline of 100m as de minimis approach and 2 sections of coastline of 100m as optimum parameter recommended, with a focus on heavily polluted areas (exceptionally 50m as de minimis for heavily polluted areas, with a normalization factor up to 100 m, to ensure coherence);
- Address further differentiation of thresholds between heavily littered, moderately littered beach categories, if possible, based on available data;
- Regarding litter in the water column, including micro-plastics, the scarce information regarding micro-plastics and technical difficulties regarding them were highlighted and that in this regard the minimum microplastics size for monitoring was recommended as 330µm;
- Regarding litter in biota, sea-turtles as a focus was recommended as a the main approach of focus, while using opportunistic monitoring of seabirds and of marine mammals in line with biodiversity related common indicators monitoring (noting that micro-plastic in fish is not part of the scope of the currently planned monitoring based on the COP18 Decision agreed indicators);
- Specifically regarding biota entangled by litter, the text should explain the reason for omitting this aspect of the common indicator in the monitoring factsheets (with the possibility of considering ghost-net entanglement problem).

***Specific recommendations of the EcAp CORMON Pollution and Litter for the future work of the CORMONs and the development needs of the Draft Monitoring Guidance on EO5 (Eutrophication):***

- Note that the Chl-a indicative values are to be further developed in light of regional, sub-regional scientific developments;
- Clarify how to build on the ongoing MEDPOL monitoring and expand it to cover the needs of EcAp monitoring, to assess GES;
- Revisit the existing MEDPOL eutrophication sampling methodology to take into account recent developments in methodologies;
- Other assessment tools in addition to the TRIX index to be considered and further presented in the Draft Monitoring Guidance on Eutrophication based on written inputs of the Contracting Parties;
- Initiate for the purpose EcAp eutrophication trend monitoring statistical analysis of eutrophication data and consistent additional data to be provided by the Contracting Parties;
- Regarding the common indicator on concentration of key nutrients in the water column, the term of coastal waters should be further specified, as well as possible methodology and frequency regarding monitoring of open waters on a sub-regional level.

***The Secretariat is requested to:***

- Follow-up on the recommendations of the CORMON pollution and litter in the further development of the Monitoring Guidance;
- Contact Contracting parties through the MED POL National Focal Points regarding the nomination of experts to specific future working groups on contaminants, eutrophication and marine litter, inviting them at the same time to volunteer as lead countries and names of experts for one of the working groups;
- Ensure that the planned monitoring activities under the acute pollution events common indicator reflect provisions for monitoring related to the Offshore Protocol;

- Regarding all the Ecological Objectives, provide for further quality assurance, more frequent intercalibration exercises and overall capacity building activities in view of the new elements introduced in EcAp;
- Investigate regarding biological effects monitoring the option to reduce the frequency to annual rather than quarterly, to include additionally stress on stress as a mandatory component of the biomonitoring and EROD in fish on an optional basis. Investigate on the basis information provided by Contracting Parties, the feasibility to include fish biomonitoring for the biomarkers proposed in the monitoring guidance document (micronuclei frequency, Acetyl cholinesterase activity).

***The Expert Groups are mandated to:***

- Focus on thresholds and assessment criteria for GES already identified at COP18, based on which, propose monitoring frequencies and scales;
- Based on the analysis provide feedback on the list of substances and priority contaminants;
- In case of marine litter to address further differentiation of thresholds between heavily littered, moderately littered beach categories, if possible, based on available data;
- In case of eutrophication, address how to compliment ongoing hot-spot monitoring to expand it to cover the needs of EcAp monitoring, to assess GES and re-visit the existing MEDPOL eutrophication sampling methodology to take into account recent developments in methodologies.

***The Contracting Parties are encouraged to:***

- Nominate as soon as possible experts into the experts groups to be established, on contaminants, eutrophication and litter and volunteer for leading a specific topic;
- Give recommendations on the Draft Monitoring Guidance in written format by 30 May for its further development (noting that it is a living document all through the upcoming CORMON discussions);
- Considering comments received during the current meeting, give input on the possible update of the common indicators, related GES and/target description to enable a follow-up to the COP18 Decision regarding this;
- Inform the Secretariat by the same date about their wish to propose inclusion further common indicators in the list of common indicators, if any, with relevant scientific background information;
- Send specifically their input in relation to Chl-a indicative threshold values and methods used, based on ongoing regional, sub-regional and national discussions and developments and take note the MEDGIG methodology, which may be a cost-effective method for the whole Mediterranean;
- Send specifically their input in relation to maximum national regulatory levels in commonly consumed seafood and on practical national implementation of the relevant WHO standards related to intestinal enterococci concentration;
- Send specifically input on eutrophication data collection methodologies and biological effects analytical techniques.



**Annex II**  
**Agenda**





## **Agenda**

### **Thursday 8 May 2014**

- Agenda item 1: Opening of the Meeting (09.00-09.15)
- Agenda item 2-3: Scope and purpose of the meeting and election of officers and adoption of the agenda (09:15-09.30)
- Agenda item 4: General introduction of the Monitoring Guidance and process ahead on Ecap monitoring (09:30-10.00)
- Agenda item 5: Monitoring Guidance discussions in relation to Contaminants/Ecological Objective 9 (10.00-13.00)
- Agenda item 6: Monitoring Guidance in relation to Marine Litter/Ecological Objective 10 (14.30-17.30)

### **Friday 9 May 2014**

- Agenda item 7: Monitoring Guidance in relation to Eutrophication/Ecological Objective 5 ( (09:00-13:00)
- Agenda item 8: Key recommendations of the Correspondence Group on Monitoring, Pollution and Litter (14:30-17:00)
- Agenda item 9: Any Other Business (17:00-17.30)
- Agenda item 10: Closure of the meeting (17.30)



## **List of Participants**



**REPRESENTATIVES OF THE CONTRACTING PARTIES****ALBANIA / ALBANIE****Ms. Aspri Kapo**

Specialist

National Environment Agency, Department of Information  
and Statistics, PRTR Sector

Rr. Sami Frasheri, Nr.4,

Tirana,

Albania

Mobile:+355672007839

E-mail: [aspri.kapo@akm.gov.al](mailto:aspri.kapo@akm.gov.al)**Ms Borana Antoni**Specialist, Sea, EIA, Industrial Pollution & Environment  
Standards

Ministry of Environment

Rr. Durrës, Nr.27,

Tirana,

Albania

Mobile:+355693571539

E-mail: [Borana.Antoni@moe.al](mailto:Borana.Antoni@moe.al)/[Boranaa@hotmail.com](mailto:Boranaa@hotmail.com)**BOSNIA AND HERZEGOVINA /  
BOSNIE ET HERZÉGOVINE****Ms Marina Fusco**

Researcher

Hydro Engineering Institute

S. Tomica 1

71000 Sarajevo

Bosnia and Herzegovina

Tel: +387 33 21 24 66

Mobile : +387 62 14 68 78

Fax: +387 33 21 24 66

E-mail: [marina.fusco@heis.com.ba](mailto:marina.fusco@heis.com.ba)**Mr Marinko Antunovic**

Ref. for Surface &amp; Underground Water Quality

Agency for Watershed of Adriatic Sea Mostar

Dr. Ante Starcevic BB

Mostar 88000

Bosnia &amp; Herzegovina

Tel:+387 36 397881

Mobile:+387 63 288737

Fax: +387 36 397883

E-mail: [mantunovic@jadran.ba](mailto:mantunovic@jadran.ba)**CROATIA / CROATIE****Mr Mladen Solic**

Senior scientist

Institute of Oceanography and Fisheries

Šetalište Ivana Meštrovića 63

21000 Split

Croatia

Tel:+385 21 460933  
Mobile: +385 91 5708704  
Fax: +385 21 358650  
E-mail: [solic@izor.hr](mailto:solic@izor.hr)

**Mr Pero Tutman**  
Senior Researcher  
Institute of Oceanography and Fisheries  
Šetalište Ivana Meštrovića 63  
020 Split  
Croatia

Tel:+38521408030  
Mobile: +385915683316  
Fax: + 38521358650  
**E-mail: [tutman@izor.hr](mailto:tutman@izor.hr)**

## CYPRUS / CHYPRE

**Mr Konstantinos Antoniadis,**  
Marine Environment Division  
Department of Fisheries and Marine Research  
Ministry of Agriculture, Natural Resources and the  
Environment  
101 Vithleem Street,  
1416 Nicosia,  
Cyprus

Tel: +35722807854  
Fax:+35722775955  
E-mail: [kantoniadis@dfmr.moa.gov.cy](mailto:kantoniadis@dfmr.moa.gov.cy)

**Mr. Neoklis Antoniou**  
Environment Officer  
Department of Environment  
20-22 28th Oktovriou ave.,  
2414 Nicosia  
Cyprus

Tel: +357 22408936  
Fax: +357 22774945  
E-mail: [nantoniou@environment.moa.gov.cy](mailto:nantoniou@environment.moa.gov.cy)

## EGYPT / EGYPTE

**Mr Abdalla Selim**  
General Manager of Coastal zone and lakes Management  
Administration  
Egyptian Environmental Affairs Agency  
30 misr helwan Agri Road,  
Maadi, Cairo  
Egypt

Tel: +201117083345  
Mobile: +201289120029  
E-mail: [aseliwa@hotmail.com](mailto:aseliwa@hotmail.com)

**Mr Mohamed Taalab**

Environmental Researcher  
Egyptian Environmental Affairs Agency  
30 misr helwan Agri Road,  
Maadi, Cairo.  
Egypt

Tel: +20663239689

Mobile: +201 228520673/201001392284

Fax : +20663510641

E-mail : hogohogo2007@hotmail.com

**EUROPEAN UNION  
UNION EUROPEENNE****Mr Michail Papadoyannakis**

Policy Officer  
Mediterranean and Black Sea  
Unit D2 : Marine  
Directorate General Environment  
European Commission  
Avenue de Beaulieu 5, office BU9 03/125

Tel : +322 2963914

Fax : +3222979697

E-mail: [michail.papadoyannakis@ec.europa.eu](mailto:michail.papadoyannakis@ec.europa.eu)**FRANCE/FRANCE****M Bruno Andral**

Responsable de laboratoire  
Ministère de l'écologie, du développement durable et de  
l'énergie/IFREMER  
Rue ZP Bregailon – CS 20330  
La Seyne sur Mer 83507  
France

Tel +33494304855

Mobile: +33607355615

Fax: +33494304417

E-mail : [Bruno.andral@ifremer.fr](mailto:Bruno.andral@ifremer.fr)**GREECE / GRÈCE****Mr Panayotis Panayotidis**

Research Director  
Ministry of Education  
General Secretariat for Research & Technology  
Hellenic Center for Marine Research  
Institute of Oceanography  
46,7Km Athens-Sounion road  
Mavrio Lithari  
GR 19013 Anavissos Attica

Tel : +3022910 76371

Fax : +30 22910 76347

E-mail : ppanag@hcmr.gr

**ISRAEL / ISRAEL****Mr Dror Zurel**

Israel Ministry of Environmental Protection, Marine Pollution  
Control Division



Marine Monitoring and Research coordinator  
PalYam Blv.15  
Haifa  
Israel

Tel: +972-50-6237652  
Mobile: +972 50-6237652  
E-mail : [drorz@sviva.gov.il](mailto:drorz@sviva.gov.il)

**Mr Barak Herut**  
General Director, Professor  
Israel Oceanographic & Limnological Research / MoEP  
Tel Shikmona  
POBox 8030  
Haifa 31080,  
Israel

Tel:+972 4 8565221  
Mobile: +972 507881780  
Fax:+972 48511911  
E-mail: [barak@ocean.org.il](mailto:barak@ocean.org.il)

#### ITALY / ITALIE

**Mr Marco Matiddi**  
Researcher  
ISPRA  
Via di Castel Romano 100  
00100 Rome  
Italy

Tel: +390650073249  
Mobile: +39 3292986225  
E-mail: [marco.matiddi@isprambiente.it](mailto:marco.matiddi@isprambiente.it)

#### LEBANON / LIBAN

**Mr Hassan Hoteit**  
Civil Engineer Department of Urban Environmental  
Protection  
Ministry of Environment  
Lazarieh Building, 7<sup>th</sup> floor - Beirut Central District  
P.O. Box 11-2727  
Beirut  
Lebanon

Tel: +961 1 976 555 ext. 448  
Fax: +961 1 976 530  
E-mail: [hoteit@moe.gov.lb](mailto:hoteit@moe.gov.lb)

**Ms. Sabine Ghosn**

Agricultural Engineer  
Department of Urban Environmental Protection  
Ministry of Environment  
Lazarieh Building - 7th floor (Room 7-18)  
P.O. Box 11-2727  
Beirut  
Lebanon

Tel: +961 1 976555 Ext: 455

Email: s.ghosn@moe.gov.lb

**MONTENEGRO / MONTÉNEGRO****Mr Pavle Djuraskovic**

Head  
Department for Environmental Protection  
Hydrometeorological Institute  
Proleterska 19  
81000 Podgorica  
Montenegro

Tel: +382 81 655182

Fax: +382 81 655102

E-mail: pavle.djuraskovic@meteo.co.me

**Mrs Ana Mišurović**

President of the Board of the Center for Ecotoxicological  
Research-CETI  
Ministry of Sustainable Development and Tourism  
Put Radomira Ivanovica 2  
81000, Podgorica,  
Montenegro

Tel: + 382 020 623 437 ; + 382 020 658 090

Mobile: +382 67 620 626, +382 69 020 626

Fax: +382 020 623 437

E-mail: anajuceti@t-com.me

**MOROCCO / MAROC****M. Samir Yousry**

Administrateur  
Ministère délégué chargé de l'Environnement  
9, Avenue Araar, Secteur 16, Hay Riad  
Rabat 101000  
Maroc

Tel : +212 6 65 08 43 50

Mobile : +212 5 37 57 66 45

E-mail : [sayousry@gmail.com](mailto:sayousry@gmail.com)

**Mlle Mailika El Bayoudi**

Ministère délégué chargé de l'Environnement  
Hay Al Wifak N° 1041  
12000 Temara  
Maroc

Tel : +212 537570591  
Mobile : +212 666144584  
Fax : +212 537576645  
E-mail : [elbayoudimalika@yahoo.fr](mailto:elbayoudimalika@yahoo.fr)

**SLOVENIA / SLOVÉNIE**

**Ms Andreja Palatinus.**  
Slovenia, Institute for Water of the Republic of Slovenia  
Independent professional associate  
Hajdrihova 28c, 1000 Ljubljana  
Slovenia

Tel: +38614775335  
Fax: +38640898472  
E-mail: [Andreja.palatinus@izvrs.si](mailto:Andreja.palatinus@izvrs.si)

**Ms. Valentina Turk**  
Marine Biological Station Piran - Institute of Biology  
Fornace 41  
P.O. Box 22  
SI-6330 Piran  
Slovenia

Tel: +386 5 671 2916  
Fax: +386 5 6712905  
[Email: turk@mbss.org](mailto:turk@mbss.org)

**SPAIN / ESPAGNE**

**Mr Jose Luis Buceta Miller**  
Technical Advisor  
Division for the Protection of the Sea  
Directorate General for the Sustainability of the Coast and  
the Sea  
Ministry of Agriculture, Food and Environment  
Plaza de San Juan de la Cruz s/n  
28047 Madrid, Spain

Tel: +34 91 5976652  
Fax: + 34 91 5976902  
E-mail: [jbuceta@magrama.es](mailto:jbuceta@magrama.es)

**Ms Concepcion Martinez Gomez**  
Dr Marine Biology  
Instituto Espagnol de Oceanografia (IEO)  
Centro Oceanografico de Murcia  
Calle Varadero 1  
San Pedro Del Pinatar 30740  
Spain

Tel:+34 968 18 05 00  
Mobile: +34 670 69 81 60  
Fax: +34 968 18 44 41  
E-mail: [concepcion.martinez@mu.ieo.es](mailto:concepcion.martinez@mu.ieo.es)

**TURKEY / TURQUIE**

**Ms Colpan Polat Beken**  
Chief Researcher

Environment Institute of Marmara Research Center  
TUBITAK  
P.O.Box 21  
4147C Gebze-Kocaeli  
Turkey

Tel: +90 262 6772977  
Mobile: +90 533 2620046  
Fax: +90 262 6412309  
E-mail: colpan.beken@tubitak.gov.tr

**SECRETARIAT TO THE BARCELONA CONVENTION  
COORDINATING UNIT AND COMPONENTS OF THE MEDITERRANEAN ACTION PLAN**

**Ms Maria Luisa Silva Mejias**  
Executive Secretary & Coordinator  
Tel :+30 210 7273101  
E-mail: [maria.luisa.silva@unepmap.gr](mailto:maria.luisa.silva@unepmap.gr)

**Mr Habib N. El Habr**  
Deputy Coordinator  
Tel :+30 210 7273126  
E-mail: [habib.elhabr@unepmap.gr](mailto:habib.elhabr@unepmap.gr)

**Mr Atila Uras**  
Programme Officer  
Tel:+30 210 7273140  
E-mail: [atila.uras@unepmap.gr](mailto:atila.uras@unepmap.gr)

**Ms Gyorgyi Gurban**  
EcAp Project Officer  
Tel:+30 210 7273105  
E-mail: [Gyorgyi.Gurban@unepmap.gr](mailto:Gyorgyi.Gurban@unepmap.gr)

**Ms Maria Capari**  
Consultant  
Marine Expert

Tel: +30 210 7273116  
Mobile : +30 6976 433110  
E-mail: [marinemonitoring.expert@unepmap.gr](mailto:marinemonitoring.expert@unepmap.gr)

Fax: 210 7253196-7  
48, Vassileos Konstantinou  
11635 Athens  
Greece

**UNEP/MAP MED POL**

**Ms Tatiana Hema**  
Programme Officer  
Tel.:+30 210 7273115  
E-mail: [tatiana.hema@unepmap.gr](mailto:tatiana.hema@unepmap.gr)

**Ms Gehan El Sakka**  
Marine Environmental Consultant  
E-mail: [medpol.medpartnership@unepmap.gr](mailto:medpol.medpartnership@unepmap.gr)

**UNEP - MAP/ MED  
PARTNERSHIP**

**Ms Virginie Hart**  
Programme Officer  
Tel:+30 210 7273122  
E-mail: [virgine.harti@unepmap.gr](mailto:virgine.harti@unepmap.gr)

**PAP/RAC**

**Mr. Marko Prem**  
Deputy Director  
Priority Actions Programme Regional Activity Centre  
(PAP/RAC)  
Kraj Sv. Ivana 11, Split 0, Croatia  
Tel.:+385 21 340475  
Fax: +385 21 340490  
E-mail: [marko.prem@ppa.t-com.hr](mailto:marko.prem@ppa.t-com.hr)

**REMPEC**

**Mr Jonathan Pace**  
Senior Programme Officer  
Maritime House, Lascaris Wharf, Valletta VLT 1921, Malta  
  
Tel.:+356 21 337296-8  
Fax: +356 21 339951  
E-mail: [jpace@rempec.org](mailto:jpace@rempec.org), [rempec@rempec.org](mailto:rempec@rempec.org)

**SPA/RAC**

**Mr Daniel Cebrian**  
Programme Officer  
Boulevard du Leader Yasser Arafat  
B.P. 337, 1080 Tunis Cedex  
Tunisia  
  
Tel: 216 71 206649, 216 71 206 851, 216 71 206485  
Fax: 216 71 206490  
Email: [daniel.cebrian@rac-spa.org](mailto:daniel.cebrian@rac-spa.org)

**REPRESENTATIVES OF UNITED NATIONS SPECIALIZED AGENCIES  
AND OTHER INTERGOVERNMENTAL ORGANIZATIONS  
REPRESENTANTS DES INSTITUTIONS SPECIALISEES DES NATIONS UNIES ET AUTRES  
ORGANISATIONS INTERGOUVERNEMENTALES**

**IAEA- INTERNATIONAL ATOMIC  
ENERGY AGENCY /AIEA-  
AGENCE INTERNATIONALE  
DE L'ÉNERGIE ATOMIQUE**

**Mr Michail Angelidis**

Chef du Laboratoire d'étude de l'environnement  
Laboratoire de l'environnement  
Département de sciences et des applications  
nucléaires  
Agence Internationale de l'énergie atomique  
International Atomic Energy Agency (IAEA)4, quai  
Antoine 1er, Monaco 98000, Monaco

Tel:+377 9797 7236

Fax: +377 9797 7276

Email: [m.angelidis@iaea.org](mailto:m.angelidis@iaea.org)

**NON-GOVERNMENTAL ORGANIZATIONS  
ORGANISATIONS NON-GOUVERNEMENTALES**

**HELMEPA – HELLENIC  
MARINE ENVIRONMENT  
PROTECTION ASSOCIATION**

**Mr Constantinos Triantafillou**  
Assistant Executive Coordinator  
HELMEPA  
5 Pergamou Street  
17121 N. Smyrni  
Athens  
Greece

Tel: +30 210 9343088  
Fax: +30 210 9353847  
E-mail: [c.triantafillou@helmepa.gr](mailto:c.triantafillou@helmepa.gr)

**Mr Ioannis Pesmatzoglou**  
Maritime Training Officer  
HELMEPA  
5 Pergamou Street  
17121 N. Smyrni  
Athens  
Greece

Tel: +30 210 9343088  
Fax: +30 210 9353847  
E-mail: [training@helmepa.gr](mailto:training@helmepa.gr) [ioanpesma@gmail.com](mailto:ioanpesma@gmail.com)

**MIO-ECSDE - Mediterranean  
Information Office for  
Environment, Culture and  
Sustainable Development**

**Ms Thomais Vlachogianni**  
Programme Officer  
Mediterranean Information Office for Environment,  
Culture and Sustainable Development (MIO-ECSDE)  
12, Kyrristou str  
10556, Athens  
Greece

Tel: +30 2103247490, -3247267  
Fax: +30 210 3317127  
E-mail: [vlachogianni@mio-ecsde.org](mailto:vlachogianni@mio-ecsde.org), [info@mio-ecsde.org](mailto:info@mio-ecsde.org)

**PROJECTS/INSTITUTES**

**EUCC MEDITERRANEAN  
CENTRE**

**Ms Ana Carolina Pérez Valverde**

Director  
EUCC Mediterranean Centre  
Carrer Escar 6-8, modulo 10A  
08039 Barcelona  
Spain

Tel: +34 931054020  
E-mail: c.perez@eucc.net

**UNIVERSITY OF PIEMONTE  
ORIENTALE**

**Prof. Aldo Giuseppe Viarengo**

University of Piemonte Orientale (DiSIT),  
V.le T. Michel 11  
Alessandria 15121  
Italy

Tel: +390131360370  
Mobile:+393357182939  
Fax: +390131360390  
E-mail: viarengo@unipmn.it