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**MEDITERRANEAN ACTION PLAN (MAP)  
REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE  
MEDITERRANEAN SEA (REMPEC)**

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Regional Expert Meeting on National Action Plans  
for the Implementation of the Regional Strategy  
for Prevention of and Response to Marine Pollution  
from Ships (2016-2021)

REMPEC/WG.39/INF.3  
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Agenda Item 4

**REGIONAL STRATEGY  
FOR PREVENTION OF AND RESPONSE TO MARINE POLLUTION FROM SHIPS  
(2016-2021)**

**Note by the Secretariat**

**SUMMARY**

**Executive Summary:** The present document contains the Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021), as adopted by the Nineteenth Ordinary Meeting of the Contracting Parties to the Barcelona Convention and its Protocols (Athens, Greece; 9-12 February 2016).

**Action to be taken:** Paragraph 3

**Related documents:** UNEP(DEPI)/MED IG.22/28, REMPEC/WG.39/4

**Background**

1 The Nineteenth Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean ("the Barcelona Convention") and its Protocols, which was convened in Athens, Greece from 9 to 12 February 2016, adopted the Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021), hereinafter referred to as the Regional Strategy (2016-2021), as annexed to Decision IG.22/4 (UNEP(DEPI)/MED IG.22/28).

2 The Regional Strategy (2016-2021) is presented in the Annex to the present document.

**Action requested by the Meeting**

3 **The Meeting is invited to take note** of the information provided in the present document.



**ANNEX**

**Regional Strategy  
for Prevention of and Response to Marine Pollution from Ships  
(2016-2021)**

(UNEP(DEPI)/MED IG.22/28)



**PREAMBLE**

Nothing in this Strategy shall prejudice the principles of Sovereignty of the States, principles of Freedom, rights of Navigation, and principles of Innocent Passage in the Territorial Sea.

In case of any contradiction between the Strategy and national or international legislations, the latter shall prevail.

For specific topics addressing national issues, the Secretariat should seek the authorisation of the concerned country prior to the publication of certain reports.

## **REGIONAL STRATEGY FOR PREVENTION OF AND RESPONSE TO MARINE POLLUTION FROM SHIPS (2016-2021)**

### **1 REMPEC**

#### **Objective and mission Statement**

1.1 The objective of REMPEC is to contribute to preventing and reducing pollution from ships and combating pollution in case of emergency. In this respect, the mission of REMPEC is to assist the Contracting Parties in meeting their obligations under Articles 4 (1), 6 and 9 of the Barcelona Convention; the Protocol Concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency, hereinafter referred to as the “1976 Emergency Protocol”; the 2002 Prevention and Emergency Protocol and implementing the Regional Strategy (2016-2021), adopted by the Contracting Parties in 2016 which key objectives and targets are reflected in the overarching Mediterranean strategies (i.e. Mediterranean Strategy for Sustainable Development (MSSD), the United Nations Environment Programme/Mediterranean Action Plan (UNEP/MAP)’s Integrated Six Year Programme of Work for the period 2016 to 2021 (Mid-Term Strategy) and the Ecosystem Approach (EcAp)). The Centre will also assist the Contracting Parties which so request in mobilising the regional and international assistance in case of an emergency under the Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil, hereinafter referred to as “the Offshore Protocol”.

#### **Scope of action and key issues**

1.2 According to the Centre’s Mandate adopted by the 16<sup>th</sup> Ordinary Meeting of the Contracting Parties (Marrakesh, Morocco, 3 – 5 November 2009), REMPEC’s main fields of action for the prevention of pollution of the marine environment from ships and the development of preparedness for and response to accidental marine pollution and cooperation in case of emergency consist of:

- .1 strengthening the capacities of the coastal States in the region with a view to preventing pollution of the marine environment from ships and ensuring the effective implementation in the region of the rules that are generally recognised at the international level relating to the prevention of pollution from ships, and with a view to abating, combating and, to the fullest possible extent, eliminating pollution of the marine environment from shipping activities, including pleasure craft;
- .2 developing regional cooperation in the field of the prevention of pollution of the marine environment from ships, and facilitating cooperation among Mediterranean coastal States in order to respond to pollution incidents which result or may result in a discharge of oil or other hazardous and noxious substances (HNS) and which require emergency actions or other immediate response;
- .3 assisting coastal States of the Mediterranean region which so request in the development of their own national capabilities for response to pollution incidents which result or may result in a discharge of oil or other HNS and facilitating the exchange of information, technological cooperation and training;
- .4 providing a framework for the exchange of information on operational, technical, scientific, legal and financial matters, and promoting dialogue aimed at conducting coordinated action at the national, regional and global levels for the implementation of the 2002 Prevention and Emergency Protocol; and
- .5 assisting coastal States of the region, which in cases of emergency so request, either directly or by obtaining assistance from the other Parties, or when possibilities for assistance do not exist within the region, in obtaining international assistance from outside the region.

## **2 PRESENT AND FUTURE SCENARIOS OF THE MARITIME INDUSTRY AND THE MEDITERRANEAN REGION**

2.1 The Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021) (the Regional Strategy (2016-2021)) and its General and Specific Objectives have been developed on the basis of the original Regional Strategy for Prevention of and Response to Marine Pollution from Ships adopted by the COP 14 in 2005. The revision exercise has been carried out in parallel to the preparation of the UNEP/MAP's Integrated Six Year Programme of Work for the period 2016 to 2021 (Mid-Term Strategy), the drafting of the Mediterranean Strategy for Sustainable Development (MSSD) 2.0 (2016-2025) and the implementation of the EcAp during the biennium 2014-2015, bearing in mind the legal, financial and institutional framework of the Barcelona system, including in particular the provisions of the 2002 Prevention and Emergency Protocol, and the mandate of REMPEC as the regional Centre charged with the implementation of the said Protocol. The Regional Strategy (2016-2021) should, therefore, be seen as an integral part of the UNEP/MAP's Mid-Term Strategy.

2.2 The revision process has incorporated, as appropriate, the findings of a synthetic report on the Assessment of the Implementation of the Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2005-2015) (REMPEC/WG.36/4), based on the Contracting Parties' response to a request for information sent by REMPEC during the summer of 2014, and of a comparative report on ongoing and existing Mediterranean, European and international strategies/sectorial action plans/initiatives on marine environment protection (REMPEC/WG.36/5), both prepared under REMPEC's direction.

2.3 Moreover, as it was the case with the original Strategy, the Regional Strategy (2016-2021) has been elaborated in the context of past, present and expected future scenarios characterising the maritime industry and the Mediterranean region, in particular:

- .1 the ever increasing role of shipping services in a more interconnected globalised world and the consequent need to better ensure the observance of the highest shipping standards also by increased interaction at the global, regional, sub-regional and national levels;
- .2 the expected developments related to maritime traffic in the Mediterranean, in particular through the future Trans-Mediterranean Transport Network (TMN-T);
- .3 the heightened concern of the general public at the impact of global shipping activities both on human life and on the marine environment; and
- .4 recent and expected developments at the global and regional levels related to the regulation of shipping that may necessitate new approaches to the protection of the Mediterranean marine environment and require a common approach to the issue of the protection of the marine environment in the region, spearheaded by REMPEC.

2.4 In view of the above, the shipping industry and the relevant private sectors' cooperation and participation should be enhanced through consultations, technical and financial contribution, whilst implementing the Regional Strategy.

### 3 GENERAL OBJECTIVES

#### Regional (UNEP/MAP) considerations

3.1 Taking into consideration the mission statement of REMPEC, the legal, financial and institutional framework of the Barcelona system, including in particular the provisions of the 2002 Prevention and Emergency Protocol, and the present and expected future scenarios characterising the maritime industry and the Mediterranean region, the overarching objectives of the Regional Strategy are threefold, namely:

- .1 prevention of pollution from ships<sup>1</sup>;
- .2 prevention of maritime accidents; and
- .3 preparation for response to major pollution incidents.

3.2 Section 4 describes the Specific Objectives which, if achieved, will meet the general objectives as set out above. For each Specific Objective, certain goals are proposed which will also serve as criteria for indicating the success (or otherwise) of Contracting Parties in meeting the objectives. The implementation goals are set out in tabular form in **Appendix 1**. Although the role of REMPEC will, as it has been since its inception, be primarily one of assistance to the Contracting Parties in enhancing their national capacities and in facilitating the means for regional or sub-regional cooperation, most of the Specific Objectives include definite tasks which are entrusted to the Secretariat (REMPEC) as an integral part of the Regional Strategy. For each Specific Objective, expected outputs relating to the Contracting Parties and the Secretariat are defined as follows:

#### Outputs relating to the Contracting Parties

- Actions by all Contracting Parties to implement the Regional Strategy

#### Outputs relating to the Secretariat

- Supporting actions offered by the Secretariat as defined by Resolution 7 adopted by the Conference of Plenipotentiaries of the Coastal States of the Mediterranean Region on the Protection of the Mediterranean Sea at Barcelona on 9 February 1976 and by the subsequent Decision on the mandate of REMPEC of the COP 16 (UNEP(DEPI)/MED IG.19/8, Annex II, pages 45-58), Marrakesh, 3-5 November 2009.

3.3 Instead of indicating explicit deadlines for the accomplishment of the Specific Objectives, the Regional Strategy establishes two levels of urgency: *high priority*, whereby all the Contracting Parties and REMPEC would be expected to accomplish the particular objective by end of 2018, and *medium priority*, for the cases where the implementation of the objectives in question would not realistically be expected less than five years after the adoption of the Regional Strategy, that is by end of 2020. Thus, the ultimate aim would be to have the whole of the Regional Strategy implemented by all the Contracting Parties and REMPEC well before the end of the period covered by the UNEP/MAP's Midterm Strategy 2016-2021. An indication of the priority assigned to each of the Specific Objectives is shown also in **Appendix 1**.

3.4 The comparative report referred to in paragraph 2.2 above has shown that several areas of activity within the Specific Objectives have strong synergies with the work of other components of the Mediterranean Action Plan (MAP) and related regional and international organisations. Where necessary, the undertakings required of REMPEC under the Regional Strategy should create linkages

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<sup>1</sup> As defined in Article 2.4 of MARPOL Convention.



with the work of such other entities and foster cooperation among them. In particular, account should be taken of the following initiatives and work:

- .1 Mediterranean: the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP Phase II), UNEP/MAP's Mid-Term Strategy (2016-2021), EcAp, Revised Mediterranean Strategy for Sustainable Development (MSSD), Regional Strategy on Ships' Ballast Water Management, Regional Plan on Marine Litter Management, Offshore Protocol Action Plan;
- .2 European: EMSA Action Plans for pollution preparedness and response, Union Civil Protection Mechanism (UCPM), Marine Strategy Framework, Horizon 2020 Initiative (H2020 Initiative); and
- .3 International: the IMSAS (including the IMO Instruments Implementation Code (Code III)), IMO's Integrated Technical Cooperation Programme (ITCP) priorities.

### *UNEP/MAP's Midterm Strategy 2016-2021*

3.5 Of the business areas identified in the development process of the UNEP/MAP's Midterm Strategy 2016-2021, the following, as they may refer to ships, should be taken into account and be ever present as general objectives when implementing the relevant Specific Objectives of the Regional Strategy:

- .1 to prevent and control contaminant inputs, oil discharges and spills, as well as human-induced eutrophication;
- .2 to prevent marine litter generation and reduce its impact on coastal and marine environment;
- .3 to keep non-indigenous species introduced by human activities at levels that do not adversely alter the ecosystem;
- .4 to maintain sea floor integrity, especially in priority benthic habitats; and
- .5 to enhance the resilience of the Mediterranean Region to impacts of climate change and variability on coastal and marine environment.

3.6 The implementation of the Regional Strategy's objectives will be expedited once the Contracting Parties have in place and apply updated national (see also paragraph 3.28 below) and regional governance mechanisms for the implementation of the Barcelona Convention, its Protocols and the adopted Strategies and Action Plans.

3.7 Also relevant are the outcomes of the MAP's five-year Strategic Programme of Work for the period 2010 to 2014, extended to 2015 by the COP 18. Of the Programme's priority themes, pollution prevention and control is the most relevant to the Regional Strategy and should continue to serve as a primary term of reference for the future. So should the establishment of early warning of pollution (oil and HNS spills) and the achievement of lower levels of pollution in the Mediterranean marine and coastal environments. These themes are covered under some of the Specific Objectives of the present Regional Strategy. The other pertinent priority theme is climate change, an issue that, under the perspective of the Regional Strategy, should be limited to the contribution that a more efficient and cleaner shipping would make to the general efforts that Contracting Parties should make, both in land and at sea, to stem the repercussions of climate change. This issue is covered under Specific Objectives 1 a) and 15 of the present Strategy.

### ***Ecosystem Approach (EcAp)***

3.8 Following the Contracting Parties commitment to progressively apply the EcAp to the management of human activities with the goal of effecting real change in the Mediterranean marine and coastal environment, the UNEP/MAP Secretariat was mandated to prepare an EcAp Monitoring Programme, and to integrate EcAp in the overall work of UNEP-MAP/Barcelona Convention; the following ecological objectives, relevant to the present Strategy, were identified and are referred to in the relevant Specific Objectives thereof:

- .1 non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystem;
- .2 contaminants cause no significant impact on coastal and marine ecosystems and human health;
- .3 marine and coastal litter does not adversely affect coastal and marine environment; and
- .4 noise from human activities causes no significant impact on marine and coastal ecosystems.

3.9 From an initial gap analysis of existing measures under the Barcelona Convention relevant to achieving or maintaining a good environmental status (GES) of the Mediterranean Sea, in line with the EcAp, conducted by the UNEP/MAP Secretariat, the following areas were found in need of further work in the future, all of which are addressed one way or another within the Regional Strategy:

- .1 public participation and science policy interface, which relates to Specific Objective 18 of the Regional Strategy (to encourage the participation of the regional scientific and technical institutions in research and development (R&D) activities and to facilitate transfer of technology);
- .2 invasive alien species, specifically concerning the Marine Mediterranean Invasive Alien Species (MAMIAS) system, which relates directly to the BWM Mediterranean Strategy and Specific Objective 1 b) ii);
- .3 marine pollution, which relates to most of the Specific Objectives of the Regional Strategy;
- .4 marine litter, which relates directly to the implementation of the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex V – Regulations for the prevention of pollution by garbage from ships, the provision of reception facilities in ports and the delivery of ship-generated wastes (Specific Objectives 1, 5 and 6 of the Regional Strategy); and
- .5 marine noise caused by ships, which is covered under Specific Objective 13.

### ***Mediterranean Strategy for Sustainable Development (MSSD)***

3.10 Following a decision of the Contracting Parties, at COP 18, to review the MSSD, the Mediterranean Commission on Sustainable Development (MCSD), based on a wide stakeholder consultation, recommended that the revised MSSD be focused on six thematic areas in line with the global process to achieve Sustainable Development Goals, of which the following three are considered of relevance to the present Regional Strategy and have, therefore, been taken into account in the Strategy's general and some of the Specific Objectives, as appropriate:

Seas and coasts; including efforts towards reaching Good Environmental Status of Mediterranean marine and coastal ecosystems;

Climate; including the impacts of climate change on natural resources and socioeconomic sectors and possible responses; and

Governance; including financing, Aarhus Convention–related issues such as public participation, and cooperation.

3.11 Drawing from the ongoing review of the MSSD, which envisages the drafting of MSSD 2.0 (2016-2025), the following draft strategic directions have been identified as appropriate for reflection, *mutatis mutandis*, in the Regional Strategy:

- .1 strengthen implementation and compliance to the Protocols of the Barcelona Convention and other regional policy instruments and initiatives (e.g. EcAp) supplemented by national approaches, which is implied in the Strategy's general and some of the Specific Objectives;
- .2 develop capacity and implement schemes for sharing integrated monitoring data of the marine and coast in a sub-national, national and regionally cooperative manner, which forms part of many of the Specific Objectives under various headings;
- .3 develop scientific knowledge and technical capacities to deal with climate change and ensure informed decision-making at all levels, which is covered under Specific Objective 1 a) as it concerns ships' energy efficiency under MARPOL Annex VI; and
- .4 enhance capacity of national and local governments and other stakeholders, including the private sector, which is relevant to Specific Objectives 3 and 18.

#### ***Other relevant initiatives under the MAP***

3.12 Of the other regional initiatives and action plan listed in paragraph 3.4.1 above, the BWM Mediterranean Strategy is referred to under Specific Objectives 1 b) and d); the Regional Plan on Marine Litter Management is covered under Specific Objectives 5, 6 and 9; and the Offshore Protocol Action Plan should be taken into account when implementing most of the Specific Objectives, in particular those addressing prevention and control of marine pollution from ships. With regard to the Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in the Mediterranean, Specific Objective 9 is exclusively dedicated to their implementation.

#### **European (EU) considerations**

##### ***EMSA***

3.13 Drawing from the successful outcome of previous cooperation arrangements between the Contracting Parties to the Barcelona Convention and the EMSA, it would be advisable to maintain and, where needed, increase coordination between them, especially when implementing some of the Specific Objectives of the Regional Strategy, which should ideally be in full harmony, not only with the aims of UNEP/MAP's strategies and action plans but also with European Union (EU) policies affecting the protection of the Mediterranean environment currently being, or about to be, implemented by EMSA. Furthermore, Contracting Parties that are not Members of the EU should aspire to bring their maritime safety, maritime security and, especially, ship-generated pollution prevention and response legislation and practices, in line with that of their Mediterranean neighbouring States that are EU Members.

3.14 Currently, there are three Action Plans for pollution preparedness and response developed by EMSA: the first one, applicable to oil (hereinafter referred to as the “EMSA Oil Action Plan”), identifies the Mediterranean Sea, particularly the area along the tanker route from the Black Sea, as a priority area in European waters which requires additional action. The second one pertains to HNS matters (hereinafter referred to as the “EMSA HNS Action Plan”). The third one is EMSA’s Action Plan for Response to Marine Pollution from Oil and Gas Installations (hereinafter referred to as the “EMSA Offshore Action Plan”). The commonalities between some of the measures called for in EMSA’s Action Plans and the objectives of the Regional Strategy are all too evident. Therefore, all the relevant Action Plans measures that are considered applicable to the Mediterranean, in particular those areas where EMSA’s mandate is extended to cover third parties and regional agreements, should be reflected as appropriate in the Regional Strategy. To that end, Specific Objectives 7, 17, 18, 19, 20, 21 and 22 make reference to the above Action Plans.

#### ***Union Civil Protection Mechanism (UCPM)***

3.15 The UCPM facilitates cooperation in the field of Civil Protection to improve the effectiveness of systems for preventing, preparing for and responding to natural and man-made disasters, including marine environment emergencies. The Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021) should make use of relevant aspects of the UCPM, and reflect them as appropriate actions to be addressed by REMPEC under Specific Objectives 19, 20, 21 and 22.

#### ***EU Marine Strategy Framework Directive***

3.16 The Marine Strategy Framework Directive (2008/56/EC) establishes a framework for community action in the field of marine environment policy. In particular, it requires Member States sharing a marine region or sub-region to cooperate to ensure that the measures required to achieve the objectives of the Directive are coherent and coordinated across the marine region or sub-region concerned. To achieve this coordination, Member States are obliged to use existing regional institutional cooperation structures, including those under the Regional Sea Conventions, making every effort to coordinate their actions with third countries having sovereignty or jurisdiction over the waters concerned. Member States are also obliged, as far as possible, to build upon relevant existing programmes and activities developed in the framework of structures stemming from Regional Sea Conventions. It is, therefore, advisable that the applicable provisions of the above-mentioned Directive be borne in mind, as appropriate, when implementing the Regional Strategy.

#### ***H2020 Initiative***

3.17 The Horizon 2020 Initiative is an umbrella programme drawing together all the policies, strategies and action plans, placing emphasis on excellent science, industrial leadership and tackling societal challenges, such as enhancing maritime protection. As such, it aims to improve the quality of life of more than 420 million citizens living in the 25 countries bordering the Mediterranean sea, whose responsible ministers have agreed to strengthen the Initiative’s pollution prevention dimension and to pay attention to emerging and related issues, such as hazardous waste and marine litter, and at the same time to further strengthen the synergies with the Barcelona Convention and take firm steps to ensure the full implementation and enforcement of policies supporting the H2020 Initiative goals, in line with the EcAp, with the support of the capacity building component when required.

3.18 Since the second phase of the H2020 Initiative (2015-2020) is clearly of great relevance to the aims and objectives of the Regional Strategy, full consideration should be given to the policies, strategies and action plans contemplated under the second phase of the H2020 Initiative when implementing the Strategy as a whole.

#### **International (IMO) considerations**

##### ***IMO’s Integrated Technical Cooperation Programme (ITCP)***

3.19 The following thematic priorities relating to the protection of the marine environment, selected for inclusion in the Organization's ITCP for the biennium 2016-2017 and therefore earmarked for funding under the ITCP, are likely to remain main concerns of the Marine Environment Protection Committee (MEPC) for years to come:

- .1 assisting countries in implementing the MARPOL Convention and, more specifically, in providing port reception facilities, establishing of Special Areas or Particularly Sensitive Sea Areas (PSSAs), introducing waste management and in the uniform application of Annex VI on energy efficiency measures for ships;
- .2 assisting countries in implementing the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC 90 Convention) and the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (2000 OPRC-HNS Protocol) and enhancing regional cooperation in marine pollution preparedness, response and cooperation as well as addressing aspects of the implementation of the relevant international regimes on liability and compensation for oil and HNS pollution damage;
- .3 strengthening national and regional capacity and fostering regional cooperation for the ratification and effective implementation of the Hong Kong Convention on Ship Recycling, the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention) and ships' biofouling guidelines; and
- .4 assisting countries in ratifying and implementing the London Protocol on Prevention of Pollution by Dumping of Wastes and Other Matter.

3.20 All of the thematic priorities enumerated above have direct correspondence with several Specific Objectives and therefore, should be reflected in the relevant actions requested under the said objectives. The thematic priorities have thus been captured, as appropriate, under Specific Objectives 1, 5, 12, 15, 20, 21 and 22.

3.21 As mentioned in paragraph 3.19 above, it should be noted that IMO may be required by Member Governments to provide assistance for the implementation and delivery of the objectives referring to in the above IMO's ITCP thematic priorities, once approved by the Technical Cooperation Committee of the Organization. As a general objective, the Secretariat is requested to explore ways and means that would secure such assistance for the implementation of the Specific Objectives in question.

#### ***IMO Member State Audit Scheme***

3.22 Based on the experience gained through the implementation of the Voluntary IMO Member State Audit Scheme (VIMSAS), the IMO Assembly adopted, in 2009, the III Code, which would constitute the new audit standard and would be made mandatory under the relevant international conventions, together with revised Framework and Procedures for the implementation of the IMO Member State Audit Scheme (IMSAS), adopted in 2013. The Assembly, at the same time, urged Governments to continue to volunteer and make themselves available for audits under the mandatory IMO instruments previously covered by the VIMSAS, leading up to the entry into force of the amendments to relevant conventions to make the III Code mandatory, when the new IMSAS would become fully effective, possibly in 2016. These important developments are captured in the Regional Strategy, under Specific Objective 3.

#### **Implementation of the Strategy**

3.23 Full and effective implementation of the Regional Strategy depends, *inter alia*, on three main factors:

- .1 the political will of Contracting Parties;
- .2 the capacity of REMPEC to respond to the demands of Contracting Parties in the preparation of documents, such as guidelines and other enabling instruments, and in the coordination and organisation of activities; and
- .3 the provision of adequate human and financial resources.

3.24 First of all, the political willingness of Contracting Parties to take action in the field of prevention of and response to marine pollution from ships has already been demonstrated by the adoption of several instruments emanating from the framework of the Barcelona Convention, especially the 2002 Prevention and Emergency Protocol. However, a sizeable number of Contracting Parties were not able to accomplish many of the Specific Objectives adopted through the original Regional Strategy (2005-2015). It is, therefore, evident that further concrete action is necessary in order to give meaningful effect to the political and legal commitments which the adoption of the Protocol and its associated strategies and action plans imply. Moreover, the continuous occurrence of pollution incidents in the region will surely help to focus governments' minds on the importance of addressing these issues.

3.25 Secondly, it is important to ensure that REMPEC is given adequate human resources and facilities in order to fulfil its responsibilities in assisting Contracting Parties to enhance their national capabilities and in facilitating regional cooperation. Specifically, additional dedicated staff will be required during the period covered by the Regional Strategy to enable REMPEC to discharge its mandate. Considering that the financial situation is currently going through a delicate period, the provision of adequately trained officials seconded by Contracting Parties to work at REMPEC for limited periods of time (e.g. two years) would allow the Centre to carry out its mandate under the Regional Strategy in a thorough and timely manner. Such secondments would also have the additional benefit of enabling the seconded officers to deepen their understanding and knowledge of the UNEP/MAP's regime in general and of REMPEC's activities in particular.

3.26 Thirdly, it is recognised that, in many cases, the lack of implementation and enforcement of the actions involved is the result of inadequate human and financial resources being allocated within the Administrations to carry out the tasks required. Hence, in order to achieve the goals and objectives of the Regional Strategy, it will be essential for all Contracting Parties to ensure that governments, including the national maritime and marine environment authorities, are aware of the importance of the issues addressed by the 2002 Prevention and Emergency Protocol and its associated strategies and action plans and allocate the necessary additional resources to fulfil the tasks in question. In this connection, it can be envisaged that some funds may become available from the specialised agencies of the UN system, e.g. IMO, to carry out tasks which would also help to fulfil the mandates of these organisations and agencies. Furthermore, financial support for clearly defined projects which also meet the EU's objectives might be obtained through the various funding mechanisms of the European Union.

3.27 Finally, within the structure of the Euro-Mediterranean partnership, there is a clear role for REMPEC to play in the implementation of projects aimed at further introducing the EU legislative framework, adapted as necessary, to the national rules and regulations of Mediterranean coastal States that are non-EU members, in order to ensure a coherent, effective and uniform implementation of the applicable international regulatory framework addressing maritime safety and the prevention of and response to pollution from ships in the Mediterranean. The relevant European Union legislation and the applicable international (IMO) conventions are listed in **Appendix 2**.

*National Action Plan (NAP)*

3.28 In addition to the above remarks and observations, it may be argued that the main cause behind the perceived poor implementation at the national level of many of the Specific Objectives of the Regional Strategy (2005-2015) has been the lack of a well-structured and specific NAP which would have helped the responsible authorities to face their obligations in an organised and timely manner, with the support of adequate budgetary provisions. A new specific sub-objective has, therefore, been integrated into Specific Objective 3 – Ensuring effective maritime Administrations to request the establishment, with the support of REMPEC, of NAP which would define the required actions to enable each country to implement the Regional Strategy and other obligations under regional and international instruments. Such initiative would also facilitate the linking of the NAP with IMO efforts concerning the definition of IMO instruments compliance gaps, the IMO IMSAS, including the IMO III Code, IMO's plans to assist developing countries with the preparation of national maritime policies focusing on IMO related issues and, ultimately, to define a plan of action to fill the identified gaps.

#### **4 SPECIFIC OBJECTIVES**

##### **4.1 Ratification of relevant international maritime conventions related to the protection of the marine environment**

4.1.1 In addition to the Barcelona Convention and its relevant Protocols there are a number of international conventions which address the prevention of and response to pollution from ships. The most important of these is the International Convention on the Prevention of Pollution from Ships, commonly known as MARPOL Convention, and its six annexes. Other relevant conventions, mainly those adopted under the auspices of IMO, are listed in **Appendix 2** to the present Regional Strategy. There remain a number of gaps in Mediterranean coastal States' ratification of the relevant international conventions. It is therefore essential that, in order to establish and maintain the comprehensive legal basis that would enable coastal States to take the necessary action to prevent and respond to cases of pollution by ships in the Mediterranean Sea, all Mediterranean coastal States take action, where necessary, to ratify and simultaneously ensure the effective implementation and enforcement of these conventions according to the priorities indicated hereunder. As part of its mandate, REMPEC will also provide Mediterranean coastal States, which so request, with advice and assistance in this respect.

4.1.2 In particular, with the adoption of the BWM Mediterranean Strategy, including its associated Action Plan and Timetable, the efforts of Contracting Parties engaged in the process of ratifying the International Convention for the Control and Management of Ships' Ballast Water and sediments, 2004 should be coordinated with the implementation of the BWM Mediterranean Strategy. In this respect, REMPEC should be expected to play an essential role in the coordination of the implementation of the BWM Mediterranean Strategy's Action Plan and also in its role as the Regional Coordinating Organisation (RCO) for the implementation of the GloBallast Partnerships Project in the Mediterranean in collaboration with the Regional Activity Centre for Specially Protected Areas (RAC/SPA).

4.1.3 The expected results under this Specific Objective are:

##### **Outputs relating to the Contracting Parties**

- a) Necessary actions are taken to ratify and implement, with *high priority*, the MARPOL Convention and its six annexes, to ensure their transposition into national law, placing special emphasis on revised Annex V (Regulations for the prevention of pollution by garbage from ships) and Annex VI (Regulations for the prevention of air pollution from ships) as amended, and to cooperate through REMPEC to ensure full compliance with its provisions;

- b) Necessary actions are taken to ratify and implement, with *high priority*, other IMO relevant international conventions and to ensure their transposition into national law by the same time and full compliance with their provisions, in particular, but not limited to:
- i) the 2001 International Convention on the Control of Harmful Anti-fouling Systems on Ships;
  - ii) the International Convention for the Control and Management of Ships' Ballast Water and sediments, 2004, including its associated Guidelines and other related recommendations, in coordination with the implementation of the Mediterranean Strategy on Ships' Ballast Water Management;
  - iii) the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009;
  - iv) the 1992 International Convention on Civil Liability for Oil Pollution Damage;
  - v) the 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage;
  - vi) the 1992 International Fund for Compensation for Oil Pollution Damage;
  - vii) the 2003 Protocol on the Establishment of a Supplementary Fund for Oil Pollution Damage;
  - viii) the 2010 Protocol to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996;
  - ix) the 2007 Nairobi International Convention on the Removal of Wrecks;
  - x) the 1990 International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC 90 Convention) and its 2000 Protocol on Preparedness, Response and Co-operation to pollution incidents by Hazardous Substances (2000 OPRC-HNS Protocol); and
  - xi) the 1996 London Protocol on Prevention of Pollution by Dumping of Wastes and Other Matter<sup>2</sup>.

**Outputs relating to the Secretariat, depending on the availability of resources**

- c) Advice and assistance provided to Mediterranean coastal States, which so request, in order to meet the priorities set forth in sub-paragraphs (a) and (b) above;
- d) Assistance provided to Mediterranean coastal States, which so request, in their efforts to ratify and implement the International Convention for the Control and Management of Ships' Ballast Water and sediments, 2004, in conjunction with the implementation of the BWM

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<sup>2</sup>Any work carried out at IMO level on the London Protocol should be streamlined with the Barcelona Convention Protocol for the Prevention of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft under the responsibility of MEDPOL.



Mediterranean Strategy and of the GloBallast Partnerships Project in the Mediterranean in collaboration with the RAC/SPA; and

- e) Assistance provided for the above purposes under the IMO's ITCF.

#### **4.2 To control and manage ships' biofouling to minimise the transfer of invasive aquatic species**

4.2.1 In addition to the transfer of invasive aquatic species through ships' ballast water, addressed in the 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediments, studies have shown that biofouling can also be a significant vector for the transfer of such species. Biofouling on ships entering the waters of the Mediterranean may result in the establishment of invasive aquatic species which may pose serious threats to human, animal and plant life, economic and cultural activities and the aquatic environment as a whole. On the other hand, the 2001 International Convention on the Control of Harmful Anti-Fouling Systems on Ships focuses on the prevention of adverse impacts from the use of anti-fouling systems and the biocides they may contain, but it is not meant to prevent the transfer of invasive aquatic species.

4.2.2 Cognisant that the potential for invasive aquatic species transferred through biofouling to cause harm had been recognised not only by IMO, but also by the Convention on Biological Diversity (CBD), several UNEP Regional Seas Conventions (e.g., the Barcelona Convention), the Asia Pacific Economic Cooperation forum (APEC), and the Secretariat of the Pacific Region Environmental Program (SPREP), the IMO's MEPC adopted the 2011 Guidelines for the control and management of ships' biofouling to minimise the transfer of invasive aquatic species, while requesting Member States to take urgent action in applying the Guidelines when adopting measures to minimise the risk of introducing invasive aquatic species via biofouling.

4.2.3 These Guidelines are intended to provide a globally consistent approach to the management of biofouling. As scientific and technological advances are made, the Guidelines will be refined to enable the risk to be more adequately addressed. Port States, flag States, coastal States and other parties that can assist in mitigating the problems associated with biofouling should exercise due diligence to implement the Guidelines to the maximum extent possible. As part of its mandate, REMPEC will be expected to provide Mediterranean coastal States, which so request, with advice and assistance in this respect.

4.2.4 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Application of the 2011 Guidelines for the control and management of ships' biofouling to minimise the transfer of invasive aquatic species, with *medium priority*, when adopting measures to minimise the risk of introducing such species via biofouling, and any experience gained in their implementation is reported to IMO;
- b) Dissemination of the Guidelines to the shipping industry and other interested parties, which are requested to cooperate in minimising the risks involved; and

### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) Advice and assistance provided to Mediterranean coastal States, which so request, in order to fulfil the aims under sub-paragraphs (a) and (b) above.

#### **4.3 Ensuring effective maritime administrations**

4.3.1 The successful implementation of relevant international instruments is very much dependant on ensuring that ships comply with internationally required standards at all times. This of course requires States to make sure that they have in place effective maritime administrations capable of discharging effectively their flag State, port State and coastal State obligations in line with the associated IMO recommendations and guidelines. In this connection, the IMO Assembly adopted in 2013 key resolutions and amendments relating to the Organization's mandatory audit scheme, paving the way for the scheme to come into effect by 2016. The mandatory audit scheme is seen as a key tool for assessing Member States' performance in meeting their obligations and responsibilities as flag, port and coastal States under the relevant IMO treaties and then offering the necessary assistance, where required, for them to meet their obligations fully and effectively.

4.3.2 At the same time, the Assembly adopted the IMO III Code, which provides a global standard to enable States to meet their obligations as flag, port and/or coastal States; the Framework and Procedures for the IMSAS; the 2013 non-exhaustive list of obligations under instruments relevant to the III Code; and a resolution on transitional arrangements from the voluntary to the mandatory scheme. All of these are seen as essential documents which, if thoroughly applied, will guarantee an effective and efficient maritime administration.

4.3.3 One of the important obligations under the MARPOL Convention and other international treaties is the requirement that officers from the maritime administrations carry out regular inspections on ships flying their own flag and on foreign flag vessels visiting their ports to ensure that they comply with the relevant provisions of the MARPOL and other applicable conventions. The problem is that although checks may be carried out, the quality of the inspection can vary from port to port and from officer to officer. Although there is a need to increase the number of inspections in order to identify substandard ships, it is essential first to improve the quality of those inspections. It is suggested that this can be achieved by focusing more attention on the training of inspection officers from the Mediterranean coastal States. In this regard, REMPEC could play a crucial role in training ship inspectors to carry out ship inspections related to international marine environment protection conventions, in particular, the MARPOL convention. This effort should be undertaken in consultation and cooperation with other relevant organisations, such as EMSA, in order to avoid overlapping of activities and enhance efficiency.

4.3.4 The full implementation of the present Regional Strategy should also be a measure of the effectiveness of a maritime administration. A well-structured and specific NAP clearly defining the procedures and required actions that will help each country to implement the Strategy will ensure, or at least facilitate, the attaining of the aims and objectives of the Strategy with the support of REMPEC. Such initiative would also facilitate the linking of the NAP with IMO efforts concerning the definition of IMO instruments compliance gaps, *inter alia* the IMSAS, including the IMO III Code, IMO's plans to assist developing countries with the preparation of national maritime policies focusing on IMO related issues, and, ultimately, to define a plan of action to fill the identified gaps. In other words, the NAPs would provide a useful tool to assess progress in individual countries and guide them in their implementation efforts in a tailored manner, including the carrying out of a national assessment and the definition of the remedial action that may be deemed necessary.

4.3.5 The expected results under this Specific Objective are:

### Outputs relating to the Contracting Parties

- a) NAP prepared, with *high priority*, with the assistance of REMPEC if necessary, to enable the assessment of progress made, and to guide the full implementation of the Regional Strategy in a tailored manner, and to conduct a national assessment of the capabilities and define the necessary remedial action;
- b) All Mediterranean coastal States that have not already done so, have enhanced with *high priority*, the performance of maritime administrations on the basis of the NAP mentioned above, by conducting a self-assessment of national capabilities and performance in giving full and complete effect to MARPOL and other applicable conventions, by using the guidance set out in *the* relevant IMO Resolution dealing with the self-assessment of flag State performance<sup>3</sup> and other relevant IMO recommendations and guidelines<sup>4</sup>;
- c) All Mediterranean coastal States that have not already done so, in their efforts to protect the marine environment and once the self-assessment mentioned in subparagraph a) above has been carried out successfully and any remedial action have been taken, have undertaken the IMO Member State Audit Scheme, using the III Code as the audit standard and following the Framework and Procedures for the IMO Member State Audit Scheme, once it is fully institutionalised when the said III Code becomes mandatory under MARPOL and other Conventions, expectedly in 2016;

### Outputs relating to the Secretariat, depending on the availability of resources

- d) Assistance provided to the Mediterranean coastal States which so request in the development of the NAP mentioned in sub-paragraph a) above, designed to enable them to assess progress made, to guide them in the full implementation of the Regional Strategy in a tailored manner, and to conduct a national assessment of their capabilities and define the necessary remedial action;
- e) Continuous assistance provided to Mediterranean coastal States which so request in enhancing the performance of their maritime administrations in line with new IMO developments, in particular IMSAS;
- f) Support provided to the Mediterranean coastal States which so request to prepare for undertaking the IMO Member State Audit Scheme, having explored the possible technical assistance to which some of them may be entitled under the IMO's ITCP and other sources; and
- g) Continuous improvement of the knowledge and expertise of flag State inspection officers by establishing, through REMPEC, a programme of training activities related to relevant international instruments, in particular MARPOL, ensuring appropriate training for ship inspectors.

## 4.4 To strengthen the Memorandum of Understanding (MoU) on port State control (PSC) in the Mediterranean region (Mediterranean MoU)

4.4.1 In order to enhance the effectiveness of individual States in carrying out port State control inspections of ships under international maritime conventions, including in particular the MARPOL Convention, various regional Memoranda of Understanding have been agreed by the States concerned

<sup>3</sup>IMO Assembly resolution A.912 (22) – Self-assessment of flag State performance.

<sup>4</sup>The 2013 edition of the IMO publication entitled “MARPOL-How to do it” contains useful information on this issue.

to enhance their regional cooperation on this issue. The Paris MoU was adopted in 1982 to strengthen cooperation on port State control primarily between European States and, in the mid-1990s, a MoU for the Mediterranean region was adopted with its headquarters in Alexandria and an Information Centre in Morocco.

4.4.2 The EU Directive 2009/16/EC sets out an inspection commitment for EU Member States which is based on a Ship Risk Profile. Ships may also be prioritised for inspection following complaints received from any person or entity with a legitimate interest. Furthermore, it includes the possibility to ban ships from the EU ports. The Mediterranean MoU sets out an inspection level of 15% inspections, but this target is not yet achieved and, moreover, a different detention policy is followed.

4.4.3 The enlargement of the EU, whereby two members of the Mediterranean MoU fall under the rules of the EU Directive, deserves full attention. During that time, REMPEC has played, and should continue playing, an enabling role in improving the effectiveness of the Mediterranean MoU and enhancing the cooperation between the Mediterranean MoU and the Paris MoU.

4.4.4 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) The mandate to REMPEC whereby the Centre should, if and when possible, offer its assistance to the Mediterranean MoU on port State control in order to improve its effectiveness and, if so requested, to facilitate cooperation between the Paris MoU and the Mediterranean MoU is maintained;
- b) The necessary resources and means to enable the Mediterranean MoU to function efficiently are made available, with *high priority*;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) Participation in the meetings of the MoU Committee;
- d) The Secretariat is associated with port State control training activities addressing environmental matters, including those related to Anti Fouling Systems, Ballast Water Management and biofouling, where appropriate, in collaboration with recognised training institutions within the region; and
- e) The Secretariat works in association with the MoUs on port State control, in particular with the Paris MoU, on the organisation and follow-up analysis of concentrated inspection campaigns on MARPOL-related deficiencies.

### **4.5 Provision of reception facilities in ports**

4.5.1 The MARPOL Convention requires its Parties to ensure the provision of port reception facilities that can receive shipboard residues and mixtures covered under its various annexes. This is a requirement that is also reflected in the 2002 Prevention and Emergency Protocol and in relevant EU legislation. Therefore, failure to provide such facilities will mean a breach of international commitments and, furthermore, may give way to unscrupulous ship operators to illegally discharge prohibited matter into the sea. The need to avoid these discharges is crucial in the case of a virtually closed body of water, such as the Mediterranean Sea. Although this rationale is well known and has been underscored time and time again ever since MARPOL was adopted, some coastal States still find it difficult, possibly on account of perceived excessive cost, to provide even their major ports with the

reception facilities they are obliged to under the MARPOL annexes they have ratified and the associated European and regional legislation.

4.5.2 Some Contracting Parties continue facing a number of problems associated with the lack of adequate port reception facilities in the Mediterranean region. Firstly, there is still a lack of sufficient guidance on the technical requirements for providing adequate reception facilities for the different types of ship-generated waste and cargo residues, although this issue was addressed in particular by the MEDA project<sup>5</sup>. Secondly, there is the problem of ultimate disposal of the wastes in environmentally satisfactory conditions. This is essentially a waste management problem and requires the establishment of appropriate procedures between the port authority (which generally is not a waste disposal authority) and the local waste management authorities for the different types of waste (e.g. garbage comparable to municipal waste; oily wastes and sludge which may be suitable for delivery to refineries for reprocessing or to appropriate users as fuel oils). Thirdly, there is the question of cost for the provision of reception facilities and the need to observe, *inter alia*, the polluter pays principle which implies that the ships using the facilities should pay for their services. The EU Directive 2000/59/EC<sup>6</sup> regulates this and other related issues as far as the EU Member States are concerned, whereas at the international level, the latest edition of the IMO Comprehensive Manual on Port Reception Facilities<sup>7</sup>, the Guide to Good Practice for Port Reception Facility Providers and Users<sup>8</sup>, the Guidelines for Ensuring the Adequacy of Port Waste Reception Facilities<sup>9</sup> and the new requirements incorporated in the relevant MARPOL Annexes since 2005, in particular the revision of MARPOL Annex V and developments in the categorisations of cargo-associated waste, should also be taken fully into account.

4.5.3 At the regional level, in conformity with the objectives and principles of the Regional Plan on Marine Litter Management adopted by the Contracting Parties in the Framework of Article 15 of the Protocol Concerning Pollution from Land-Based Sources and Activities (LBS Protocol), the Contracting Parties shall, according to Article 9 of the Regional Plan on Marine Litter Management and in accordance with Article 14 of the 2002 Prevention and Emergency Protocol, explore and implement to the extent possible by 2017, ways and means to charge reasonable cost for the use of port reception facilities or when applicable, apply a No-Special-Fee system. The Contracting Parties shall also take the necessary steps to provide ships using their ports with updated information relevant to the obligation arising from Annex V of the MARPOL Convention and from their legislation applicable in the field.

4.5.4 In conformity with article 10 of the Regional Plan on Marine Litter Management, the Contracting Parties undertake to explore and implement, by the year 2019, to the extent possible, measures to charge reasonable costs for the use of port reception facilities or, when applicable apply No-Special-Fee system, in consultation with competent international and regional organisations, when using port reception facilities for implementing the measures provided for in Article 10.

4.5.5 The question of payment for port reception facilities is an important issue in order to ensure that charges are not prohibitively high so as to encourage ships' masters to contravene the Convention by discharging wastes at sea. On the other hand, differences in practice between one port and the next, including whether or not waste management fees are charged as an additional cost to users of the reception facilities or are incorporated within the port due, can lead to distortions in the use of reception facilities and could lead to significant waste management burdens on those providing such facilities at cheaper cost. In order to ensure that waste management fees are not a disincentive to the

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<sup>5</sup> MEDA Project on port reception facilities for collecting ship-generated garbage, bilge waters and oily wastes (MED.B7.4100.97.0415.8).

<sup>6</sup> Directive 2000/59/EC of the European Parliament and of the Council of 27 November 2000 on port reception facilities for ship-generated waste and cargo residues.

<sup>7</sup> Expected to be approved by MEPC 68 in 2015 with the new title "Port Reception Facilities - How to do it".

<sup>8</sup> Circular MEPC.1/Circ.671/Rev.1.

<sup>9</sup> Resolution MEPC.83 (44).

use of reception facilities in Mediterranean ports, Mediterranean coastal States should address this issue.

4.5.6 The expected results under this Specific Objective are:

**Outputs relating to the Contracting Parties**

- a) Provision of adequate reception facilities in their ports, with *high priority*, unless specified otherwise and if appropriate action has not been already taken and procedures related to the cost of the use of such facilities have been considered, enabling their use as soon as they are available at a fee which should be reasonable and should not serve as a disincentive for their use;
- b) For garbage, with *high priority*:
  - i. all major ports have installed facilities for the collection of garbage and procedures for its disposal; and
  - ii. collection and disposal procedures for garbage are in place for all major ports.
- c) For oily wastes, with *high priority*:
  - i. all major ports have established collection, treatment and disposal procedures for bilge waters, oily residues and dirty ballast waters; and
  - ii. collection, treatment and disposal procedures for bilge waters, oily residues and dirty ballast waters are in place for all major ports.
- d) For Noxious Liquid Substances (NLS), with *high priority*:
  - i. all major ports handling NLS have established collection, treatment and disposal procedures for NLS; and
  - ii. collection, treatment and disposal procedures for NLS are in place for all major ports.
- e) For sewage, with *high priority*:
  - i. all major ports have established collection and treatment procedures for sewage; and
  - ii. collection and treatment procedures for sewage are in place for all major ports.
- f) For ozone-depleting substances and exhaust gas cleaning residues, with *medium priority*:
  - i. all major ports have established collection and treatment procedures for ozone-depleting substances and exhaust cleaning residues; and
  - ii. collection and treatment procedures for such substances and residues are in place for all major ports.
- g) For ballast water and sediments, with *high priority*:
  - i. all major ports and terminals where cleaning or repair of ballast tanks occurs have endeavoured to take action to be in a position to comply with the provisions of the 2004 Ballast Water Convention by its entry-into-force date or as soon as possible thereafter.

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- h) Well-structured advice provided to Mediterranean coastal States, which so request, that may include, but not necessarily limited to, assessing the type, specifications, and capacity of the equipment necessary at major ports to efficiently and effectively handle shipboard residues and mixtures. Such assistance may also include preparation of guidelines or sample form of operation plans. All this should be based on previous work done on this matter and taking into account the latest edition of the IMO Comprehensive Manual on Port Reception Facilities, the IMO Guide to Good Practice for Port Reception Facility Providers and Users and the new requirements incorporated since 2005 in the relevant mandatory instruments, to assist Contracting Parties in the accomplishment of this objective; and
- i) Contribution to the implementation of the Regional Plan on Marine Litter Management, as deemed appropriate, in preparing the advice mentioned in subparagraph h) above, in particular for the preparation of specific guidelines to determine the application of charges at reasonable costs for the use of port reception facilities or, where appropriate, the application of a No-Special-Fee system, in consultation with various relevant regional and global institutions and initiatives.

#### **4.6 Delivery of ship-generated wastes**

4.6.1 The provision of port reception facilities is not an end in itself but the means to achieve an end, namely the prevention of marine pollution by illegal discharges. However, some vessels may have sufficient dedicated storage capacity on board to deliver their wastes at another port of call without risking illegal discharge at sea. In such cases it is important to establish a system whereby a port notifies the authorities in the vessel's next port of call about the status of the ship's waste storage conditions in order that the authorities in the next port of call can inspect the vessel to ensure that there has been no illegal discharge in transit.

4.6.2 In some cases the port authorities may deem it essential that the ships concerned deliver their waste to port reception facilities before leaving the port. It is important, therefore, that the appropriate port authorities have adequate national powers to enforce such a decision.

4.6.3 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Establishment, with *high priority* and if appropriate action has not been already taken, of a system of notification to a vessel's next port of call of the status of its on board retention of bilge waters, oily wastes, HNS residues, sewage, garbage, ozone-depleting substances and exhaust gas cleaning residues;
- b) Implementation by all Mediterranean coastal States, with *high priority*, of national regulations empowering maritime authorities to require, if they deem it necessary, the Masters of vessels to discharge wastes into designated port reception facilities before sailing; and

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) Advice provided on the subject as may be requested by Contracting Parties, possibly in association with the well-structured advice requested under the Specific Objective on the provision of reception facilities in ports, taking also into account, where appropriate, the Regional Plan on Marine Litter Management.

#### **4.7 Improved follow-up of pollution events as well as monitoring and surveillance of illicit discharges**

4.7.1 Although under the Regional Strategy (2005-2015) this Specific Objective called for the establishment, by 2010, of systems and procedures for national monitoring and surveillance, with the exception of a few Mediterranean coastal States, which have already set up aerial surveillance of the waters under their jurisdiction, there continues to be a general lack of monitoring and surveillance of Mediterranean waters, necessary for the effective implementation of the MARPOL Convention. This lack of surveillance keeps inviting unscrupulous ship operators to discharge illicit wastes without fear of detection.

4.7.2 If the 2002 Prevention and Emergency Protocol is to have any meaning, it will be essential for all Contracting Parties to embark on a regular system of national aerial surveillance. The burden of surveillance may be shared by allowing the aircraft of a neighbouring State to overfly the waters under the jurisdiction of another State for the purposes of monitoring compliance with the MARPOL Convention. There are various regions of the Mediterranean, which lend themselves to such sub-regional cooperation. Nevertheless, the aerial surveillance should always be complemented by maritime patrols.

4.7.3 In addition to surveillance by aircraft and patrol boats, cooperation and exchange of information on satellite surveillance should be enhanced for improving the detection of illicit discharges in the entire Mediterranean region. The extension to all Contracting Parties to the Barcelona Convention of the CleanSeaNet services offered by EMSA to EU Member States and recently made available to the beneficiary countries of the Project Euromed Cooperation on Maritime Safety and Prevention of Pollution from Ships III (Safemed III) (e.g. Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, the Palestinian Authority, and Tunisia) and to REMPEC, should be explored in cooperation with REMPEC.

4.7.4 REMPEC, on the other hand, implemented two projects regarding this issue, namely the Marine & Coastal Environmental Information Services Project (MARCOAST) Project and the Aerial & Satellite surveillance of Operational Pollution in the Adriatic Sea (AESOP) Project, between 2007 and 2009 and has organised a number of activities, for instance, the Coordinated Aerial Surveillance Operations for illicit ship pollution discharges (opérations de surveillance coordonnée aérienne des rejets des navires en Méditerranée – OSCAR-MED) in October 2009 and June 2013. With the continuous support of REMPEC, such operations should be intensified and carried out on a regular basis in the entire region and should be coordinated with measures undertaken for the enforcement and the prosecution of discharge offenders as further detailed in the following Specific Objective 8.

4.7.5 In order to meet the Specific Objective of improved monitoring and surveillance of illegal discharges,

#### **Outputs relating to the Contracting Parties**

- a) Establishment, with *high priority* and if appropriate action has not been already taken, of systems and procedures for national and sub-regional monitoring and surveillance including, where practicable, regular individual or coordinated aerial surveillance<sup>10</sup> in the waters under the jurisdiction of Contracting Parties, if the Parties so agree, and results reported to the regular meetings of REMPEC Focal Points;

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<sup>10</sup> Aerial Surveillance: refers only to the monitoring and surveillance of illicit discharges by aircraft carried out with the approval of the concerned States



- b) Establishment, with *high priority*, of sub-regional systems, including procedures to over-fly the waters<sup>11</sup> under the jurisdiction of a neighbouring State if the neighbouring Parties so agree, for surveillance of environmentally sensitive and/or high risk zones of the Mediterranean Sea;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) Analysis, as far as practical, through direct correspondence with the Contracting Parties, of the reasons behind the poor record of compliance with this objective by many Contracting Parties;
- d) Continuous organisation and participation in, funding and human resources permitting, any new activities on this issue where the Centre is requested to play a role, building on the experience gathered from the activities carried out on national monitoring and surveillance;
- e) Facilitation of the organisation of regular coordinated or individual aerial surveillance operation for illicit ship pollution discharges;
- f) The continuation of the CleanSeaNet services offered by EMSA available to all Contracting Parties to the Barcelona Convention that are not Member States of the EU, currently through the SAFEMED III Project, until 2021 and beyond, have been explored; and
- g) In carrying out the above requests, cooperation with other Regional Agreements and EMSA.

#### **4.8 To improve the level of enforcement and the prosecution of discharge offenders<sup>12</sup>**

4.8.1 Even though many Mediterranean coastal States have ratified the MARPOL Convention, not all countries have yet established a national legal framework to effectively implement the Convention and, in particular, a comprehensive framework to enforce the provisions and prosecute offenders, although it is understood that the remaining countries are in the process of adopting enabling national legislation.

4.8.2 Although the subject is complex, much progress has been made within the framework of the Agreement for Cooperation in Dealing with Pollution of the North Sea by Oil and Other Harmful Substances (Bonn Agreement) and Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM) for dealing with such issues in the North and Baltic Seas, as well as in the part of the Mediterranean covered by Lion Plan and RAMOGE agreement, and there is considerable scope for other Mediterranean coastal States to benefit from this experience.

4.8.3 REMPEC has assisted Mediterranean countries to establish an appropriate legal framework for the transposition into national legislation of the provisions of the MARPOL Convention relevant to illicit discharges. An assessment of the situation with respect to MARPOL Annex I implementation was carried out in Mediterranean countries which are not EU member States. Other efforts of the Centre have focused on enhancing the knowledge of legal personnel, prosecutors and magistrates and facilitating judicial cooperation and the establishment of possible common procedures, which ultimately led to the establishment of the Mediterranean Network of Law Enforcement Officials relating to MARPOL within the framework of the Barcelona Convention (MENELAS), whose terms of reference were adopted by the COP 18.

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<sup>11</sup> Over-fly the waters: refers only to the monitoring and surveillance of illicit discharges by aircraft carried out with the approval of the concerned States

<sup>12</sup>Reference is made to IMO Assembly Resolution A.787 (19), as amended by Resolution A.882 (21). The IMO publication entitled "MARPOL-How to do it" contains useful information in relation to the issues of "Prosecuting offences" and "Pollution detection and response".

4.8.4 Although much effort has been made to accomplish this task under the Regional Strategy (2005-2015), there are still some Contracting Parties that need to take action on this issue. Therefore, the expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) All Mediterranean coastal States have ensured, with *high priority*, the existence of a national legal framework (regulations) as a basis for prosecuting discharge offenders for infringements of the MARPOL Convention or of any national legal framework implementing it;
- b) Active participation, with *high priority*, in the MENELAS in accordance with its terms of reference;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) Continuous support provided to Contracting Parties, acting as the Secretariat of MENELAS and reports on its activities are submitted to the Contracting Parties at each of their Ordinary Meetings;
- d) Maintenance of the MENELAS information system; and
- e) Collaboration with UNEP/MAP Secretariat to further exploit possible synergies with the Regional Seas framework such as the North Sea Network of investigators and Prosecutors (NSN), the Baltic Sea Network of Environmental Crime Prosecutors (ENPRO) and EMSA in the framework of MENELAS.

### **4.9 To reduce the pollution generated by pleasure craft activities**

4.9.1 Following the outcome of preparatory work for the development of a legal regional instrument dealing with prevention of pollution from pleasure craft activities in the Mediterranean in collaboration with Institut du Droit Economique de la Mer (INDEMER); the outcome of the COP 13; and the decision of the Meeting of National Experts on the Feasibility of a Legal Regional Instrument on Prevention of Pollution from Pleasure Craft Activities in the Mediterranean held in Monaco in 2004, a set of Principles to serve as a framework for the further development by REMPEC of Guidelines on prevention of pollution from pleasure craft activities in the Mediterranean was agreed.

4.9.2 Under the Regional Strategy (2005-2015), the Contracting Governments agreed that the above-mentioned Guidelines should be prepared and implemented together with the relevant provisions of the MARPOL Convention. Consequently, REMPEC, in close cooperation with IMO, developed the subject Guidelines, which were eventually adopted by the COP 15, renamed as the Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in the Mediterranean<sup>13</sup>. The purpose of these Guidelines is to assist Governments when developing, improving and enacting domestic laws and taking appropriate measures, with a view to implementing international and regional regulations applicable to the prevention of pollution of the marine environment from pleasure craft activities. They are also intended to users of pleasure craft and managers of marinas to encourage them to apply proper environmental practices and to comply with the relevant requirements, and should also serve to assist in planning and developing the environmental performance of marinas.

4.9.3 Additionally, Contracting Parties implementing the Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in the Mediterranean should also refer to the Regional Plan on Marine Litter Management, as appropriate.

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<sup>13</sup> UNEP/MAP Decision IG 17/9

4.9.4 The expected results under this Specific Objective are:

**Outputs relating to the Contracting Parties**

- a) Implementation, with *high priority*, of the Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in the Mediterranean, in conjunction with the relevant provisions of the MARPOL Convention and the Regional Plan on Marine Litter Management;
- b) Measures undertaken to implement the said Guidelines reported to the Secretariat;

**Outputs relating to the Secretariat, depending on the availability of resources**

- c) Assistance provided to Mediterranean coastal States in the implementation of the Guidelines referred to in subparagraph a) above, taking into account the relevant provisions of the MARPOL Convention and the Regional Plan on Marine Litter Management; and
- d) Recordkeeping of the reports sent by the Contracting Parties under sub-paragraph b) above and submission of periodical synthetic reports to the relevant meetings of the Contracting Parties.

**4.10 Reduced risk of collisions by establishing Ship's Routeing Systems**

4.10.1 The objective of ships' routeing is to improve the safety of navigation, and therefore the prevention of marine pollution by ships, in converging areas and in areas where the density of traffic is great or where freedom of movement of shipping is inhibited by restricted sea room, the existence of obstructions to navigation, limited depths or unfavourable meteorological conditions. Traffic separation schemes (TSS) and other ship routeing systems have now been established in most of the major congested shipping areas of the world, and the number of collisions and groundings has often been dramatically reduced.

4.10.2 IMO's responsibility for ships' routeing is enshrined in Chapter V of the International Convention for the Safety of Life at Sea, 1974 (SOLAS), which recognises the Organization as the only international body for establishing such systems. As well as traffic separation schemes, other routeing measures adopted by IMO to improve safety at sea include two-way routes, recommended tracks, deep water routes, precautionary areas, and areas to be avoided.

4.10.3 Some Ship's Routeing Systems have already been established in the Mediterranean. However, there may be scope for creating additional systems, at least in narrow passages and in the region of the most sensitive coastal areas.

4.10.4 The establishment of a network of Marine/Maritime Highways as a succession of the network of physically-defined navigation routes and TSS, could ultimately support different aspects of the integrated perspective of marine and maritime affairs in the Mediterranean sea-basin, in view of the establishment of maritime spatial planning including *inter alia* the necessity to avoid some areas such as Marine Protected Areas (MPAs) and Specially Protected Areas of Mediterranean Importance (SPAMIs); the monitoring and investigating of illicit discharges from ships; better response to emergencies, including search and rescue operations, emergency towing and pollution response; and organisation of the co-existence of multiple maritime activities. Considering the entry into force in July 2014 of the Directive 2014/89/EU of the European Parliament and of the Council establishing a framework for maritime spatial planning, which should be transposed, by 2016, by EU Member States

in view of the establishment of their Maritime Spatial Plans (MSP) by 2021, and noting that the Directive requires that EU Member States sharing a sea should cooperate to ensure that their MSPs are coherent and coordinated across the marine region, UNEP/MAP components including in particular the Priority Actions Programme/Regional Activity Centre (PAP/RAC), RAC/SPA and REMPEC have a key role to play in the establishment of MSPs in the Mediterranean region, should all Contracting Parties decide to follow that path.

4.10.5 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Additional appropriate routing systems in the Mediterranean are proposed to IMO, where necessary, for possible adoption in accordance with international law;
- b) Establishment of MSPs under national jurisdiction is considered, when and where possible, and without prejudice to the sovereign right of the States, in close collaboration with the relevant national competent authorities and in cooperation with other Mediterranean coastal States ensuring that their MSPs are coherent and coordinated across the Mediterranean region;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) Assistance provided to Contracting Parties that so request, either individually or collectively, in the identification of possible sea areas where a routing system might be deemed necessary and in the preparation of the relevant documentation to initiate the process at IMO; and
- d) Support is provided, in close cooperation with other MAP components, to Contracting Parties which so require in their efforts toward the establishment of MSPs.

### **4.11 Improved control of maritime traffic**

4.11.1 According to SOLAS chapter V on Safety of Navigation, specifically regulation 12, Vessel Traffic Services (VTS) contribute to safety of life at sea, safety and efficiency of navigation and protection of the marine environment, adjacent shore areas, work sites and offshore installations from possible adverse effects of maritime traffic. SOLAS Contracting Governments undertake to arrange for the establishment of VTS where, in their opinion, the volume of traffic or the degree of risk justifies such services, following the guidelines developed by the Organization, without prejudice of the rights and duties of Governments under international law or the legal regimes of straits used for international navigation and archipelagic sea lanes.

4.11.2 Maritime Traffic Control Systems, including VTS, are already established in some areas of the Mediterranean. There have already been incidents where coastal States have lost track of vessels which may pose a threat of pollution and there may be a case for establishing additional Maritime Traffic Control Systems in the Mediterranean region in order to effectively implement the 2002 Prevention and Emergency Protocol.

4.11.3 Through the SafeMed II Project, considerable efforts were made to enhance the capacities of Mediterranean coastal States related to the prevention of maritime accidents, particularly in relation to VTS management. An extensive Training Programme for VTS operators certified by the International Association of marine Aids to navigation and Lighthouse Authorities (IALA), VTS supervisors and VTS on-the-job training instructors funded by the SafeMed II Project was carried out in 2012 which enabled over 120 officials from the Mediterranean region to be trained in vessel traffic management. A SafeMed II Project Regional Workshop on the Long-Range Identification and Tracking of Ships (LRIT) was also organised in 2012 in cooperation with EMSA and IMO to, *inter alia*, familiarise Mediterranean trainees with the LRIT legal and technical requirements. The SafeMed III Project,

launched in June 2013 for a duration of 36 months, is built on and designed to consolidate the results achieved by SafeMed I and II.

4.11.4 At the European level, the need for permanent monitoring of ship movements led the European Union to adopt EU Directive 2002/59/EC<sup>14</sup> which provides for a comprehensive vessel traffic monitoring and information system based on IMO requirements. In view of the need to improve the monitoring of ships in the Mediterranean, particularly those posing a risk to the marine environment, the potential of the EU System, which also includes the SafeSeaNet vessel traffic monitoring and information system, should be fully exploited by the Mediterranean coastal States. In this regard, every effort should be made to identify the possibilities that might exist for the development and establishment of an ad hoc infrastructure.

4.11.5 On the other hand, with the phasing out of single hull tankers carrying oil and other HNS now complete, the risk of severe pollution that existed when such ships were allowed to operate has diminished considerably.

4.11.6 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Areas of the Mediterranean where control of maritime traffic could be improved by the establishment of a regime based on the use of Automatic Identification System (AIS) in conjunction with VTS and mandatory ship reporting systems, are identified and the approval procedures are completed as soon as possible thereafter;
- b) Improvement, on a continuous basis, of technical cooperation among VTS Centres of neighbouring countries and, according to the need, information is exchanged about ships by using AIS and other related systems in the common surveillance area; and

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) The international financial assistance required to establish the regime referred to in subparagraph a) above, taking also into account, where appropriate, possible synergies with actions undertaken on the establishment of MSPs referred to under Specific Objective 10, is negotiated, with *high priority*, with appropriate organisations and agencies on behalf of the Contracting Parties which so request.

### **4.12 Identification of Particularly Sensitive Sea Areas (PSSAs)**

4.12.1 The MARPOL Convention assigns certain sea areas the denomination of "special areas" in which, for technical reasons relating to their oceanographically and ecological conditions and to their sea traffic circumstances, the adoption of special mandatory methods for the prevention of marine pollution is required. Under the Convention, these special areas are provided with a higher level of protection than other areas of the sea. The Mediterranean Sea has been designated as a Special Area under MARPOL Annexes I (oil) and V (garbage).

4.12.2 It is also possible for Contracting Parties to identify maritime zones that require additional protection from international shipping and request their designation as PSSA. This is done by applying the Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas (PSSAs)<sup>15</sup>. These guidelines include criteria to allow areas to be designated as PSSAs if they fulfil a number of criteria, including: ecological criteria, such as unique or rare ecosystem, diversity of the

<sup>14</sup> Directive 2002/59/EC of the European Parliament and the Council 27 June 2002 establishing a community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC.

<sup>15</sup>IMO resolution A.982(24).

ecosystem or vulnerability to degradation by natural events or human activities; social, cultural and economic criteria, such as significance of the area for recreation or tourism; and scientific and educational criteria, such as biological research or historical value. When an area is designated as a PSSA, certain protective measures are used to control the maritime activities in that area, such as routing measures, including TSS and areas to be avoided; strict application of MARPOL discharge and equipment requirements for ships, such as oil tankers; installation of VTS; and others. These associated protective measures become mandatory under the relevant international conventions (e.g. SOLAS, MARPOL, etc.) and, therefore, must be complied with by international shipping.

4.12.3 The expected results under this Specific Objective are:

**Outputs relating to the Contracting Parties**, in order to meet the Specific Objective of identifying PSSAs:

- a) Maritime areas within their jurisdiction which need the protection afforded by their designation as PSSAs are ascertained, with *medium priority*, and the support of REMPEC and RAC/SPA and, if so ascertained, the process of requesting IMO to enable such designation is initiated;

**Outputs relating to the Secretariat, depending on the availability of resources**

- b) Initiation, on the request of Contracting Parties and in conjunction with RAC/SPA, of the process of identification of those areas which, after examination by the REMPEC Focal Points, could be proposed for designation as PSSAs taking also into account, where appropriate, possible synergies with actions undertaken on the establishment of MSPs referred to under Specific Objective 10;
- c) Assistance is provided, in cooperation with IMO, to the Mediterranean coastal States which so request, to conduct the necessary studies and to prepare the relevant submissions to IMO for the designation of PSSAs, if any, in strict compliance with the applicable IMO Guidelines<sup>16</sup>; and
- d) Possibility of obtaining assistance for the above purposes under the IMO's ITCP explored.

#### **4.13 Reduction of marine noise caused by ships**

4.13.1 Following the Contracting Parties commitment to progressively apply the EcAp to the management of human activities with the goal of effecting real change in the Mediterranean marine and coastal environment, the UNEP/MAP Secretariat was mandated to prepare an EcAp Monitoring Programme, and to integrate EcAp in the overall work of UNEP-MAP/Barcelona Convention. The reduction of marine noise from human activities was one of the ecological objectives.

4.13.2 Meanwhile, IMO Member States have raised concern over the years that a significant portion of the underwater noise generated by human activity may be related to commercial shipping. The international community recognises that underwater-radiated noise from commercial ships may have both short and long-term negative consequences on marine life, especially marine mammals. Subsequently, the IMO Marine Environment Protection Committee, with a view to providing guidance on the reduction of underwater noise from commercial shipping, approved the Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life<sup>17</sup> and invited Member Governments to use the Guidelines from 7 April 2014.

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<sup>16</sup>Idem.

<sup>17</sup>Circular MEPC.1/Circ.833.

4.13.3 These non-mandatory Guidelines are intended to provide general advice about reduction of underwater noise to designers, shipbuilders and ship operators, and focus on primary sources of underwater noise associated with propellers, hull form, on board machinery, and operational aspects. Therefore, they do not require Governments to take any specific action other than bringing the advice to the attention of all parties concerned.

4.13.4 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Awareness raised, with *medium priority*, through the dissemination of the advice contained in the IMO Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life among their national designers and shipbuilders, as well as operators of ships flying their flag, urging them to implement noise mitigation strategies on board their ships; and

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- b) Advice and assistance are provided to Mediterranean coastal States, which so request, in order to fulfil the objective under sub-paragraphs (a) above.

### **4.14 To establish procedures for the designation of places of refuge in order to minimise the risks of widespread pollution**

4.14.1 In 2003, the 23<sup>rd</sup> Assembly of IMO, conscious of the possibility that ships at sea may find themselves in need of assistance relating to the safety of life and the protection of the marine environment, and recognising the importance of and need for providing guidance for the masters and/or salvors of ships in need of assistance, adopted the Guidelines on places of refuge for ships in need of assistance<sup>18</sup>. In doing so, the IMO Assembly recognised also the need to balance both the prerogative of a ship in need of assistance to seek a place of refuge and the prerogative of a coastal State to protect its coastline, and that the provision of a common framework to assist coastal States to determine places of refuge for ships in need of assistance and respond effectively to requests for such places of refuge would materially enhance maritime safety and the protection of the marine environment.

4.14.2 The purpose of the IMO guidelines is to provide ships' Masters, ship owners, salvors and Member Governments with a framework enabling them to respond effectively and in such a way that, in any given situation, the efforts of the Master and owner of the ship and the efforts of the government authorities are complementary. A second Assembly resolution on the establishment of Maritime Assistance Services<sup>19</sup> to provide a focal point for the receipt of various reports and notifications required by various IMO instruments was also adopted by the IMO Assembly in 2003. At the European level, directive 2009/17/EC amending Directive 2002/59/EC, which establishes a Community vessel traffic monitoring and information system, obliges EU Member States to draw up plans to accommodate, if the situation so requires, ships in need of assistance in their ports or in any other protected place in the best possible conditions, in order to limit the consequences of accidents at sea in the waters under their jurisdiction.

4.14.3 Considering that the designation of places of refuge associated with national plans to deal with ships in need of assistance are very valuable tools to protect the coastline against the devastating effects that a shipping accident occurring near the shore can have on the coastal environment of any State, it could be worthwhile for Mediterranean coastal States to consider in greater depth the

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<sup>18</sup> IMO resolution A.949(23).

<sup>19</sup>IMO resolution A.950 (23).

modalities for establishing places of refuge within the Mediterranean region, including the preparation of, for example, guidelines on additional equipment, which would be required in places of refuge to facilitate cargo transfers in environmentally safe conditions.

4.14.4 To that end, REMPEC has prepared the Guidelines on the Decision-Making Process for Granting Access to a Place of Refuge for Ships in Need of Assistance, which were adopted in 2008 by the COP 15.

4.14.5 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Identification, with *high priority*, at the national level, of appropriate procedures as outlined in the relevant IMO Guidelines and relevant EU guidelines supplemented by the associated Guidelines and Principles prepared by REMPEC, in order to facilitate the decision making when designating a place of refuge for ships in need of assistance;
- b) All Mediterranean coastal States have drawn up plans to deal with ships in distress, including, appropriate equipment and means, as required, and have defined the modalities of the response according to its nature and to the risk incurred; and

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) Continuous assistance provided to countries, which so request, to define procedures and draw up plans as specified in sub-objectives a) and b) above, and to raise funds, *inter alia*, from the IMO's ITCF.

#### **4.15 To examine the possibility of designating the Mediterranean Sea or parts thereof as SO<sub>x</sub> emission control area under MARPOL Annex VI and effectively implement the existing energy efficiency measures**

4.15.1 MARPOL Annex VI, adopted by the Protocol of 1997, as amended in 2011<sup>20</sup>, regulates the prevention of air pollution from ships in general and, in particular, establishes more stringent limits for emissions of sulphur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>) and particulate matter from ship engine exhausts, and introduces a new chapter 4 with regulations on energy efficiency for ships. With respect to SO<sub>x</sub>, regulation 14 provides that the sulphur content of fuel oil shall not exceed 3.50% m/m, until 1 January 2020 when the limit will be reduced to 0.50% m/m depending on the outcome of a review, to be concluded in 2018, as to the availability of the required fuel oil. However, within SO<sub>x</sub> Emission Control Areas (SO<sub>x</sub> ECA), where a higher level of protection is needed due, for instance, to the proximity of heavy shipping activity to populated areas or the susceptibility of a particular sea area to acidification, the limit is currently set at 0.10% m/m from 1 January 2015. To date, the North Sea, the Baltic Sea, the North American Area and the United States Caribbean Sea Area have been designated as ECA under MARPOL Annex VI. In addition to the requirements of MARPOL Annex VI as amended, the European Union has implemented sulphur limits under Directive 1999/32/EC as amended, according to which a 0.5% sulphur limit outside SO<sub>x</sub> ECAs will be mandatory in EU waters by 2020 and hence in part of the Mediterranean Sea.

4.15.2 The implementation of the above provisions bring additional responsibilities but also human health benefits for Mediterranean countries and, therefore, the ratification of MARPOL in general and of its Annex VI in particular should be a priority for Contracting Parties, as pointed out under Specific

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<sup>20</sup>Resolution MEPC.203(62).



Objective 1. However, considering that it may take some time for all the Contracting Parties to ratify MARPOL Annex VI and that to impose the new Annex VI strict regime within ECA in the whole of the Mediterranean Sea may not be a realistic goal if it is to be achieved within the period of the Regional Strategy 2016 – 2021, it would be advisable instead to start by examining the possibility of designating certain specific areas within the Mediterranean Sea as SO<sub>x</sub> ECAs, drawing from the study already undertaken under the SafeMed I Project on the “Designation of the Mediterranean Sea as a SO<sub>x</sub> ECA under MARPOL Annex VI Guidelines & Procedures regarding the ratification process of Annex VI & the preparations required for the submission of an Application to IMO for the Mediterranean Sea to be designated as a SO<sub>x</sub> ECA”.

4.15.3 Furthermore, measures to improve energy efficiency of international shipping were adopted by Parties to MARPOL Annex VI at MEPC 62 in July 2011 and entered into force on 1 January 2013. These Regulations for energy efficiency of ships apply to internationally trading ships of 400 gross tonnage and above, and make mandatory the Energy Efficiency Design Index (EEDI) for new ships; and the Ship Energy Efficiency Management Plan (SEEMP) for all ships.

4.15.4 IMO has adopted guidelines aimed at supporting implementation of the mandatory measures to increase energy efficiency and reduce greenhouse gas (GHG) emissions from international shipping, paving the way for the regulations on EEDI and SEEMP to be smoothly implemented by Administrations and industry.

4.15.5 Following the entry into force on 1 January 2013 of the new chapter 4 of MARPOL Annex VI, the MEPC 66 (April 2014) considered further energy efficiency measures for ships and discussed various submissions relating to proposals to establish a framework for the collection and reporting of data on the fuel consumption of ships. Whilst MEPC 67 (October 2014) agreed, in principle, to develop a data collection system for ships, further work should be undertaken to develop full language for the data collection system for fuel consumption that can be readily used for voluntary or mandatory application of the system.

4.15.6 In order to meet the Specific Objective of considering the designation by IMO of the Mediterranean Sea or parts thereof as a SO<sub>x</sub> ECA under MARPOL Annex VI, and effectively implement the existing energy efficiency measures, the expected results under this Specific Objective are:

### **Outputs relating to the Contracting Parties**

#### Options relating to the Contracting Parties

- a) Establish a technical committee of experts, which works through correspondence, nominated by the Contracting Parties which will carry out a technical and feasibility study, to examine if it is appropriate, at the current stage, to put in place a roadmap for preparation of a submission to the International Maritime Organization to designate as a SO<sub>x</sub> ECA in certain areas of the Mediterranean Sea requiring specific environmental protection and to explore possible further steps;
- b) Once a decision is made and having ratified MARPOL Annex VI, a proposal to designate as a SO<sub>x</sub> ECA the area or areas of the Mediterranean Sea identified under sub-paragraph a) above is submitted to IMO, with *medium priority*;
- c) Participation in relevant debates at the IMO on possible future further measures for enhancing the energy efficiency of international shipping, in particular, the development of a data collection system for fuel consumption of ships, *inter alia* by informing the Secretariat of the existence of data collection and reporting systems for fuel consumption of ships;

### **Outputs relating to the Secretariat, depending on the availability of resources**

- d) Preparation, with *high priority*, of a study based on the input of Contracting Parties, aimed at assessing the feasibility of the alternatives referred to in sub-paragraph a) above;
- e) Assistance provided to the Mediterranean coastal States which so request, either individually or collectively, to prepare a submission to IMO proposing the designation as a SO<sub>x</sub> ECA of the area or areas of the Mediterranean Sea identified under sub-paragraph a) above;
- f) Relevant information provided to Contracting Parties, which so request, on possible future further measures for enhancing the energy efficiency of international shipping;
- g) Assessment of existing data collection and reporting systems for fuel consumption of ships in the Mediterranean region and pilot studies on voluntary “Data Collection and Reporting” carried out; and
- h) Possibility of obtaining assistance for the above purposes under the IMO’s ITCP explored.

### **4.16 To ensure that adequate emergency towing capacity is available throughout the Mediterranean to assist vessels, including tankers, in distress**

4.16.1 Once a vessel gets into difficulties, or threatens to become a hazard to other vessels, it is vitally important to take all necessary action as quickly as possible to save life, to prevent her going or creating a hazard, and to prevent her cargo or bunkers from spilling. In this connection, emergency towing may be used to remove the ship and cargo from a place of danger to one of safety, such as a sheltered anchorage or place of refuge. If a vessel breaks down completely, or is too far from a safe anchorage to be able to reach it under its own steam, one sure way to prevent grounding or becoming a hazard to other vessels is for a tug to provide appropriate assistance.

4.16.2 The International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 and its Protocol of 1973 addressing marine pollution by substances other than oil, provide powers to States Parties to “intervene” to prevent a pollution incident, including imposing towing assistance if necessary. As regards the equipment that ships should have on board, SOLAS Regulation II-1/3-4, requires all vessels to have a ship-specific emergency towing procedure. The associated resolution MSC.35 (63) and circular MSC.1/Circ.1255, among others, also apply. Emergency towing procedures should also be considered as part of the emergency preparedness required by the International Safety Management (ISM) Code.

4.16.3 Notwithstanding the above, the provision of adequate emergency towing capacity to assist ships in distress in the Mediterranean, especially when there are sharing agreements among neighbouring coastal States, is of paramount importance when trying to avert major loss of life and/or serious pollution damage. Currently there are at least three regional agreements on search and rescue, one in the West Mediterranean and two in the North-West Mediterranean, which include the sharing of towing capacity. In this connection, REMPEC, responding to the mandate given under the Regional Strategy (2005-2015), prepared, under the SAFEMED Project<sup>21</sup>, Emergency Towing Arrangements in the Mediterranean Sea, which represent an indispensable tool for coastal States to fulfil their obligations when responding in distress situations.

4.16.4 The expected results under this Specific Objective are:

### **Outputs relating to the Contracting Parties**

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<sup>21</sup> MED.2005/109-573 financed by the European Commission under an IMO/EC contract.

- a) Agreements with neighbouring coastal States considered, with *high priority*, if appropriate action has not been already taken, to enable them to share emergency towing equipment and arrangements to assist ships in distress in the Mediterranean, using as appropriate the Mediterranean guidelines on emergency towing;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- b) Assistance provided to Contracting Parties that so request in preparing and implementing the agreements referred to in sub-paragraph a) above; and
- c) Assessment of the capability of the Mediterranean coastal States in terms of emergency towing equipment, and support provided to those Contracting Parties, which so request.

#### **4.17 To enhance the levels of pre-positioned spill response equipment under the direct control of Mediterranean coastal States**

4.17.1 A problem which faces many countries that are parties to the Barcelona Convention is where to find the financial resources to provide the State component of an overall minimum level of pollution-combating equipment. Obligations can be placed upon port authorities and oil handling facilities to provide sufficient equipment to meet the estimated spill risks associated with their activities. However, accidents in open waters are outside the jurisdiction of port authorities and oil handling facilities. Furthermore, accidents in open waters involving laden oil tankers are most likely to cause serious pollution incidents, even if they occur at a lower frequency than the smaller spills which arise in ports and terminals.

4.17.2 There are various possibilities for financing the acquisition by the State of the required pre-positioned oil spill response equipment and vessels. These include *inter alia*:

- State budget;
- partnerships with international institutions;
- partnerships with other States;
- partnerships with private sector, including in particular the oil industry;
- partnerships with specialised spill response companies; and
- specific national funds financed through targeted taxation of certain commercial activities, and/or through accumulation of fines imposed on offenders of applicable rules and regulations.

4.17.3 Sharing information on ways of financing spill response equipment is important, especially for coastal States which may lack the considerable funds needed to purchase and maintain adequate equipment of that nature. Since marine pollution preparedness and response should represent an unremitting concern for all coastal States and bearing in mind the difficulties encountered by some States when trying to finance expensive and at times perishable oil and HNS pollution response equipment, it is important that each Contracting Party, having decided upon the most appropriate way of financing the acquisition of required State controlled spill response equipment and vessels, shares the information, through REMPEC, with other Mediterranean coastal States that have not been able to obtain it.

4.17.4 The lessons learnt from the “Deepwater Horizon” incident highlighted the importance of maintaining, at national and regional level, an inventory of available means in order to hasten the identification of equipment and human resources that could be made available to a third party in case of emergency. Whilst it was further recognised that the existing inventory of response capacity in the region was not detailed enough to provide immediate accurate information, REMPEC’s inventory has been reviewed by the Mediterranean Technical Working Group (MTWG) in the context of the Project Mediterranean Decision Support System for Marine Safety (MEDESS-4MS) to improve the

accessibility to information in the aftermath of an accident. At the European level, the structure of the European inventory of response equipment integrated in the Common Emergency Communication and Information System (CECIS) was also reviewed and at the international level, the IMO is developing the “International Offers of Assistance Guidelines”, which, *inter alia*, provide recommendations on equipment resources’ inventories. Whilst the maintenance of multiple inventories can be cumbersome to Contracting Parties, in particular to those that belong to various Regional Agreements, efforts should be made to facilitate their task in updating these inventories.

4.17.5 Whilst most efforts in this field have been focused on oil spill response equipment, little has been done in the field of HNS response equipment, which remains a challenge. Particular emphasis should be given in the Regional Strategy to assess the HNS spill response capacity in line with EMSA efforts in this field.

4.17.6 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Information concerning national practices for financing the acquisition of spill response equipment, shared or exchanged, with *high priority*, with a view to assist Mediterranean Coastal States in determining all feasible methods to finance spill response equipment;
- b) Establishment, with *medium priority*, of national stockpiles of State controlled and private pre-positioned oil and HNS spill response equipment and the related inventory at national level and regional level is kept updated through REMPEC;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) Assistance provided to the States which so request in identifying the minimum required level of pre-positioned State-controlled spill response equipment;
- d) Dissemination to the Contracting Parties of information concerning the applicable ways of financing the acquisition of such equipment and continuous assistance provided in this regard, as necessary;
- e) Maintenance of the regional information system (RIS) and updated inventory of pre-positioned spill response equipment; and
- f) Possible synergies to interconnect the RIS with CECIS to facilitate the access to the information at any time and in particular in case of emergency, and facilitate the update of these databases through an interconnected system, is envisaged.

#### **4.18 To encourage the participation of the regional scientific and technical institutions in research and development activities and to facilitate transfer of technology**

4.18.1 The 2002 Prevention and Emergency Protocol to the Barcelona Convention emphasises the need for exchange of information concerning R&D of new technologies. The OPRC 90 Convention and its 2000 OPRC-HNS Protocol explicitly call upon Parties to these international legal instruments to actively participate in R&D efforts.

4.18.2 It has been noted that, in general, Mediterranean coastal States, with a very few exceptions, rarely present the results of their R&D activities related to response to marine pollution incidents, or even participate in relevant international fora, such as IMO R&D Forum, Interspill, International Oil Spill Conference, etc.

4.18.3 On the other hand, from direct contacts with the persons attending meetings and training courses organised by REMPEC it appears that scientific, technical and educational institutions as well as the industry from the Mediterranean region are involved in R&D activities in various subjects related to prevention of, preparedness for and response to accidental marine pollution. Encouraging national institutions and the industry to actively participate in OPRC and OPRC-HNS R&D activities and programmes and to present the results at international fora should not represent an undue burden to Administrations, while the States concerned would clearly accrue benefits from the outcome of such activities and programmes.

4.18.4 In discharging its mandate under the Regional Strategy (2005-2015) and in order to make the results of R&D activities undertaken in the Mediterranean region better known, REMPEC has endeavoured to encourage the participation of regional research institutions and industry in relevant events. REMPEC has also facilitated, through the network of its Focal Points, the exchange of these results among the Contracting Parties. In particular, REMPEC was involved in the MEDESS-4MS Project, which is dedicated to the strengthening of maritime safety by mitigating the risks and impacts associated to oil spills. Besides, REMPEC signed a MoU with the Mediterranean Operational Oceanography Network (MOON) regarding Emergency Response Collaboration Agreement for the Mediterranean Region. The Centre has also participated in several regional workshops, giving an overview of the situation in the Mediterranean Sea.

4.18.5 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Scientific and technical institutions, as well as the industry, actively participate in R&D activities and programmes related to accidental marine pollution prevention, preparedness and response;
- b) National institutions and industry presents the results of their R&D activities and programmes at international fora;
- c) National R&D activities are presented using the page created by REMPEC within the Country Profiles website;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- d) Continuous assistance provided to regional institutions and industry in identifying fields of research in which there is a need for enhancement of the state-of-the-art of spill preparedness and response technologies and techniques;
- e) Continuous assistance provided in the dissemination and exchange of results of national R&D activities and programmes within and outside the Mediterranean region;
- f) Participation of national and regional research institutions and industry in the relevant international fora is facilitated with a view to making better known the results of R&D activities undertaken in the Mediterranean region; and
- g) Cooperation with other Regional Agreements, in carrying out the above requests.

#### **4.19 To improve the quality, speed and effectiveness of decision-making process in case of marine pollution incidents through the development and introduction of technical and decision support tools**

4.19.1 The successful outcome or otherwise of measures taken in order to respond to oil spills and to spills or releases of other HNS depends to a great extent on the quality of and the promptness with which decisions concerning the response are taken. Moreover, the failure of a coastal State in taking swift and effective action against the imminence of a serious marine pollution incident occurring in its territorial waters may result, not only in a national environmental disaster, but also in causing devastation along neighbouring countries' shores.

4.19.2 Although such decisions should be taken by the competent national authorities and their responsible officers taking into consideration specific circumstances of each particular marine pollution emergency and a number of technical, socio-economic and political factors, the process of taking decisions can be significantly accelerated, made more correct and simplified using certain decision support tools such as e.g. sensitivity maps, spill forecasting models and databases. There is a wide variety of such tools developed by either commercial organisations or scientific institutions; however these are only rarely developed for a specific geographical area.

4.19.3 In response to its mandate under the Regional Strategy (2005-2015), REMPEC has endeavoured to cooperate with scientific institutions in the region and with specific programmes and projects dedicated to relevant activities.

4.19.4 The MEDESS-4MS Project co-financed by the European Regional Development Fund (ERDF) and implemented in cooperation with REMPEC provides a tool enabling all Mediterranean countries to compare the most appropriate oil spill forecasting models for a selected area in the region and to assess oil spill potential impact toward socio-economic and environmental assets gathered in a geographical information system, including *inter alia* updated data on national response capacity. In addition, oceano-meteorological centres from six Mediterranean countries have signed an agreement with REMPEC through the Mediterranean Operational Network for the Global Ocean Observing System (MONGOOS - former MOON) providing, on request, oil spill forecast to all Mediterranean countries.

4.19.5 The Centre has also developed and/or updated the following tools in the framework of the MTWG, which has also contributed together with Plan Bleu and RAC/SPA to the data collection within the framework of the above mentioned MEDESS-4MS Project, or through other projects:

- a Geographic Information System (GIS) on Maritime Traffic in the Mediterranean Sea;
- a Maritime Integrated Decision Support Information System on Transport of Chemical Substances (MIDSIS-TROCS);
- a Waste Management Decision Support Tool; and
- Other long-implemented tools are being continually updated, such as the REMPEC Alerts and Accidents Database.

4.19.6 Regarding the latter, since its establishment the REMPEC Alerts and Accidents Database relied on various sources of information including *inter alia* REMPEC national Focal Points, the IMO Maritime Knowledge Centre, Cedre, local media, etc. Although REMPEC endeavoured to verify and harmonise the information collected, the development of a quality assurance programme for data reporting and collection is required and should be established in line with the EcAp Monitoring Programme.

4.19.7 The expected results under this Specific Objective are:

### **Outputs relating to the Contracting Parties**

- a) The development and improvement of specific regional decision support tools are stimulated by promoting active participation of national scientific institutions and programmes, and through providing REMPEC with relevant data-sets and other information that might be available in the respective countries;
- b) Active participation, through a country lead approach in the implementation of the programme of work of the MTWG as defined by the Meetings of Focal Points of REMPEC;
- c) National oceano-meteorological institutes have joined the MONGOOS and contributed to the maintenance of the above Mediterranean tools through regular data update;
- d) Contribution to the development of a quality assurance programme for data reporting and collection in line with the EcAp Monitoring Programme;

### **Outputs relating to the Secretariat, depending on the availability of resources**

- e) Continuous revision and upgrade of the existing IT based decision support tools, and development of new IT based decision support tools available to the competent national authorities of the Contracting Parties, taking into account national or regional initiatives in this field;
- f) Coordination and the implementation of the programme of work of the MTWG facilitated;
- g) Possible interaction and capitalisation of decision support tools available at Mediterranean and European levels, including those developed by other Regional Agreements or under other regional initiatives are explored, in carrying out the above requests;
- h) Support provided for the development of a quality assurance programme for data reporting and collection in line with the EcAp Monitoring Programme; and
- i) Integration of any developments on decision support tools under Specific Objectives 20, 21 and 22.

## **4.20 To increase as much as practical, the level of knowledge in the field of preparedness and response to accidental marine pollution by oil and other harmful substances**

4.20.1 The existence in each country of a core group of experts specialised in oil and HNS spill preparedness and response is recognised to be, together with the existence of national organisation, contingency plans, response strategy and response equipment, one of the key prerequisites for properly initiating, conducting and successfully completing response operations in case of marine pollution emergency.

4.20.2 It is considered that the necessary sustainability in the field of training at national level can be achieved through the creation of a small number of qualified trainers in each country who could in turn continue to provide the required training to their co-nationals. It refers in particular to training national spill response personnel at the level of operators and direct responders (Level 1) and at the level of supervisors and on-scene commanders (Level 2). On the other hand it is understood that Level 3 training (senior government administrators and managers) will have to remain at the regional level and should continue to be provided and co-ordinated by REMPEC. Similarly, highly specialised training in specific fields of marine pollution preparedness and response will also have to remain the responsibility of the Centre. The long-term aim of this Specific Objective should, therefore, be for

each Contracting Party to achieve self-sufficiency in spill response training at the general level and to ensure continuous education of national spill responders.

4.20.3 Since the inception in the early 1980s of the REMPEC training programme, more than 3,500 persons have been trained through training activities at different levels which were included in the programme. Despite this noteworthy achievement a significant number of persons that had been trained is not any longer at the disposal of their respective national administrations due to job changes, retirement or other reasons, and the need for further training has been emphasised by REMPEC Focal Points on numerous occasions.

4.20.4 In response to the relevant mandate given in the Regional Strategy (2005-2015), REMPEC has regularly organised training courses covering different subjects and targeting the widest variety of participants to the greatest extent possible. The Centre has also organised information and other decision-making meetings, in particular concerning:

- the project for Preparedness for Oil-polluted Shoreline clean up and Oiled Wildlife interventions (POSOW), including a train the trainer course and the development of the related pedagogic material;
- regional training courses on highly specialised issues such as the Regional Response Capacity and Co-ordination for Major Oil Spill in the Mediterranean Sea (MEDEXPOL) workshops; and
- training on specific issues such as the use of dispersants, waste management, oiled shoreline assessment, oiled wildlife response, oil spill forecast modelling, risk assessment, etc.

4.20.5 The Centre should, therefore, focus its training efforts on training of trainers and providing highly specialised training on specific issues, at the regional level.

4.20.6 Regular communication, table top and full scale exercises are crucial, not only to assess the knowledge acquired during training courses and to test local, national and regional response capacity, but also to enhance cooperation amongst national competent authorities, REMPEC and European response mechanisms (i.e. EMSA and the Union Civil Protection Mechanism), and private sectors.

4.20.7 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Establishment, with *high priority*, if appropriate action has not been already taken, of national training programmes for response to incidents involving oil and other HNS, based *inter alia* on IMO Model training courses Levels 1 and 2, for training national operating level and supervisory personnel respectively, with a view to ensuring a continuous education of such personnel;
- b) Dissemination of the knowledge acquired through train the trainer courses and replication of the training courses at local and national level;
- c) Regular exercises carried out to test national response capacity in cooperation with all relevant stakeholders and to the possible extent involving neighbour coastal states to enhance bilateral and sub-regional cooperation;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- d) Assistance provided to Contracting Parties which so request in the development and implementation of their national training programme;



- e) Continuous delivery of “Training of Trainers” courses, based in particular on the work developed under POSOW Projects;
- f) Regional training courses on specific, highly specialised issues, identified at regular basis by the Meetings of REMPEC Focal Points;
- g) The relevant model training courses updated by the IMO Sub-Committee on Pollution Prevention and Response (PPR), other Regional Agreements, and EMSA under its relevant Action Plans are taken into account, when preparing and supporting the implementation of national training programmes;
- h) Promotion of the organisation of regular exercises to test national and sub-regional response capacity in cooperation with all relevant stakeholders; and
- i) The possibility of obtaining assistance for the above purposes under the IMO’s ITCP is explored and external resources and means *inter alia* from external donors, the private sector and the UCPM are mobilised.

**4.21 To revise the existing recommendations, principles and guidelines, and to develop new ones aimed at facilitating international cooperation and mutual assistance within the framework of the 2002 Prevention and Emergency Protocol**

4.21.1 Since 1987 various Ordinary Meetings of the Contracting Parties to the Barcelona Convention have adopted a series of recommendations, principles and guidelines concerning accidental marine pollution preparedness, response and mutual assistance, as well as prevention of pollution from ships. All these documents aimed at facilitating the implementation of the 2002 Prevention and Emergency Protocol.

4.21.2 There have been numerous developments at both regional and global levels that necessitate revision, updating or amending, as appropriate, of the recommendations, principles and guidelines adopted in the past by the Contracting Parties. These developments include the introduction of new regional and global legal instruments, the development of technology, better understanding of issues related to accidental pollution by oil and other hazardous and noxious substances, and last but not least the experience gained through, and initiatives resulting from, major pollution accidents. Such recommendations, principles and guidelines should be put through continuous review in order to keep them up-to-date and fit for purpose.

4.21.3 In addition to keeping the above-mentioned material current, the facilitation of transboundary movement of specialised response personnel and equipment in cases of emergency may mark the difference between success and failure in responding to, and mitigating, the often disastrous consequences of a serious pollution incident. Contracting Parties should, therefore, undertake to streamline their respective national procedures for entry into, movement within and exit from their territory of specialised personnel and equipment that might be required in case of emergency.

4.21.4 As mandated by the Regional Strategy (2005-2015), REMPEC has endeavoured to list in its website Country Profile the existing transboundary arrangements on which some States have provided information. The information is still scarce and, therefore, Contracting Parties should, as a matter of urgency, furnish the Centre with the required information. Also, REMPEC has revised the relevant guidelines and produced new ones, which were adopted, and constantly works in developing and making information available as much as possible.

4.21.5 However, the Mediterranean Principles and Guidelines should be reviewed in line with the latest international and European developments (i.e. International Offers of Assistance Guidelines

(IMO) and the host nation support under the Union Civil Protection Mechanism). In the context of the review of the Mediterranean Principles and Guidelines, clear procedures, conditions and synergies should be established and agreed to ensure an effective coordination between the Mediterranean (Mediterranean Assistance Unit (MAU): Centre de documentation, de recherche et d'expérimentations sur les pollutions accidentelles des eaux (Cedre), Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), Federazione Nazionale dell'Industria Chimica (Federchimica), Sea Alarm, MONGOOS), regional assistance, IMO support, etc.) and European response and assistance mechanism (i.e. Emergency Response Coordination Centre (ERCC), EMSA's pollution response services and CECIS).

4.21.6 With a view to meeting the Specific Objective of revising the existing and developing new regional recommendations, principles and guidelines aimed at facilitating international cooperation and mutual assistance in the framework of the 2002 Prevention and Emergency Protocol, the expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Revision, with *high priority* if appropriate action has not been already taken, of the existing recommendations, principles and guidelines concerning accidental marine pollution preparedness, response and mutual assistance, as well as prevention of pollution from ships, that were adopted since 1987, paying particular attention to those that aim at removing possible obstacles which might hinder mutual assistance;
- b) Identification, with *high priority* if appropriate action has not been already taken, of all such recommendations, principles and guidelines that need to be revised, updated and/or amended;
- c) Indication, with *high priority* if appropriate action has not been already taken, of additional recommendations, principles and guidelines which should be adopted at the regional level with a view to facilitating the implementation of the 2002 Prevention and Emergency Protocol in the field of international cooperation and mutual assistance;
- d) Mutual assistance further facilitated by streamlining, with *high priority* if appropriate action has not been already taken, the respective national procedures for entry into, movement within and exit from their territory of specialised personnel and equipment that might be required in case of emergency, and REMPEC is informed accordingly;
- e) The use of the CECIS Marine Pollution is considered in order to enhance coordination of requests and offers of international assistance;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- f) Compilation, as soon as the necessary information is in hand, of an inventory of the applicable national procedures governing the entry into, movement within and exit from their territory of specialised personnel and equipment that might be provided as mutual assistance in case of emergency, and preparation of recommendations for improving those national procedures that could seriously hamper providing such assistance;
- g) Preparation, with *high priority*, in cooperation with REMPEC national Focal Points revised, updated and/or amended texts of the relevant regional recommendations, principles and guidelines to be proposed for adoption to the Meetings of the Contracting Parties;
- h) Development, as the need arises and in cooperation with REMPEC national Focal Points, , new recommendations, principles and guidelines, as necessary, and to be propose for adoption to the Meetings of the Contracting Parties;

- i) In carrying out the above requests, cooperation with IMO, other Regional Agreements, EMSA under its relevant Action Plans and the Union Civil Protection Mechanism, taking into account any new developments on international cooperation and mutual assistance as indicated in the penultimate paragraph of the introduction of the present Specific Objective; and
- j) Possibility of obtaining assistance for the above purposes under the IMO's ITCP is explored and external resources and means *inter alia* from external donors, the private sector and the UCPM are mobilised.

#### **4.22 To strengthen the capacity of individual coastal States to respond efficiently to marine pollution incidents through development of sub-regional operational agreements and contingency plans**

4.22.1 The 2002 Prevention and Emergency Protocol to the Barcelona Convention, as well as the OPRC 90 Convention and its 2000 OPRC-HNS Protocol, recognise the importance of sub-regional, bilateral and multilateral, agreements for cooperation in accidental marine pollution preparedness and response, as important tools for enhancing national capacities of States participating in such agreements.

4.22.2 In the Mediterranean region, sub-regional contingency plans and agreements on their implementation constitute mechanisms for mutual assistance, based on the framework provided by the 2002 Prevention and Emergency Protocol. These mechanisms, which facilitate the implementation of the Protocol, enable competent national authorities of the Contracting Parties to closely cooperate by co-ordinating and integrating their respective national capacities, with a view to effectively responding to incidents surpassing their individual capacities.

4.22.3 In order to create the necessary conditions leading to the development of sub-regional agreements it is necessary that individual States have in place a national contingency plan and/or a preparedness and response system as fundamental protection requirements against the potentially disastrous consequences of a serious pollution incident. It is, therefore, imperative that all the Contracting Parties have such plans and systems in operation. In this connection, REMPEC, in fulfilling its mandate under the Regional Strategy (2005-2015), has assisted a number of countries in the development of their national contingency plans and has offered its support to the three countries remaining without any operational national contingency plan.

4.22.4 At the sub-regional level, REMPEC has continuously and actively assisted the Contracting Parties in preparing and implementing sub-regional contingency plans and agreements such as South-Eastern Mediterranean (Cyprus, Egypt and Israel), South-Western Mediterranean (Algeria, Morocco and Tunisia), and the Adriatic Sea (Croatia, Italy and Slovenia), and has participated to activities in the framework of the RAMOGEPOL (France, Monaco and Italy) and the Lion plan (France and Spain). The existing sub-regional contingency plans and agreements contain provisions for cooperation in prevention of maritime incidents, which is expected to further reduce the risk of accidental marine pollution, and which may be also included in future sub-regional agreements. The Centre has also assisted in the implementation of the POSOW Project, involving Croatia, Cyprus, France, Greece, Italy, Malta, Slovenia and Spain and aiming at establishing a regional cooperation synergy through the enhancement of knowledge and capacities of operators, professionals and volunteers in the field of marine pollution and is involved in the second phase of the project extended to Algeria, Egypt, Lebanon, Libya, Morocco, Tunisia and Turkey.

4.22.5 Once all the remaining Mediterranean coastal States have set-up their national systems for preparedness and response, including adoption of national contingency plans, the way will be paved for concluding sub-regional arrangements among all the countries in the region. Active participation of each country in one or more of such bilateral or multilateral agreements is expected to significantly increase the level of preparedness for responding to major marine pollution incidents in the region.

However, an assessment may be required to evaluate the gaps between the plans which will ultimately be linked to others through bilateral and/or sub-regional agreements.

4.22.6 Whilst most national contingency plans were developed with oil spill incidents from ships in mind, an update may be required to integrate the response to HNS spills. Furthermore, with the ongoing development in the field of exploration and exploitation of the continental shelf and the seabed and its subsoil, and in accordance with article 16 of the Offshore Protocol which applies, *mutatis mutandis*, the provisions of the 2002 Prevention and Emergency Protocol, National Contingency Plans of Mediterranean coastal States involved in oil and gas exploration and exploitation should be reviewed to integrate offshore activities.

4.22.7 The expected results under this Specific Objective are:

#### **Outputs relating to the Contracting Parties**

- a) Assessment, preparation, or revision and adoption, with *high priority* if appropriate action has not been already taken, of national contingency plans and establishment of national systems for preparedness for and response to oil and HNS spills from ships, sea ports and oil handling facilities, with a view to creating the necessary conditions for the development of sub-regional agreements;
- b) Sub-regional agreements covering the entire Mediterranean region negotiated, concluded and implemented including the relevant sub-regional contingency plans;

#### **Outputs relating to the Secretariat, depending on the availability of resources**

- c) Continuous assistance provided to the Contracting Parties that have not yet adopted their national contingency plans or need to review their national contingency plans to integrate HNS and/or offshore components, in the development or update and implementation of national preparedness and response systems;
- d) Assessment of national contingency plans and national response systems, facilitated through self-assessment or peer reviews to commensurate national response capacities with the existing oil and HNS spill risks from ships, sea ports and oil handling facilities and to evaluate gaps between national plans in order to define appropriate actions to ensure the compatibility of operational arrangements in view of the conclusion of bilateral and/or sub-regional agreements;
- e) Continuous assistance provided to Contracting Parties, which so request, in preparing or reviewing sub-regional contingency plans and in drafting agreements on their implementation;
- f) Advice and material which may be made available by other Regional Agreements utilised in carrying out the above requests; and
- g) The possibility of obtaining assistance for the above purposes under the IMO's ITCP is explored and external resources and means *inter alia* from external donors, the private sector and the UCPM are mobilised.

**Appendix 1**  
**Implementation Goals**

**Note:** “**High priority**” implies that the task in question should be completed by end of 2018, whereas “**Medium priority**” implies that the task should be concluded as soon as possible, but not later than end of 2020.

**A) Contracting Parties’ Goals**

<b>Specific Objective</b>	<b>Goal (Success Criteria)</b>	<b>Priority</b>
1 Ratification of relevant international maritime conventions related to the protection of the marine environment (see <b>Appendix 2</b> ).	<p>a) All Contracting Parties to have taken the necessary actions to ratify and implemented MARPOL and its six Annexes ,to have ensured their transposition into national law, placing special emphasis on revised Annex V (Regulations for the prevention of pollution by garbage from ships) and Annex VI (Regulations for the prevention of air pollution from ships) as amended, and to have cooperated through REMPEC to ensure full compliance with its provisions;</p> <p>b) All Contracting Parties to have taken the necessary actions to ratify and implemented other IMO relevant international conventions and to have ensured their transposition into national law by the same time and full compliance with their provisions;</p>	High  High
2 To control and manage ships' biofouling to minimise the transfer of invasive aquatic species.	<p>a) All Contracting Parties to have applied the 2011 Guidelines for the control and management of ships' biofouling to minimise the transfer of invasive aquatic species and report to IMO accordingly;</p> <p>b) All Contracting Parties to have disseminated the Guidelines to the shipping industry and other interested parties; and</p>	Medium  Continuous
3 Ensuring effective maritime administrations.	<p>a) All Contracting Parties to have developed a NAP to enable them to fully implement the Regional Strategy in a timely and thorough manner;</p> <p>b) All Mediterranean coastal States to have enhanced, on the basis of their NAP, the performance of their maritime administration in accordance with the applicable IMO recommendations and guidelines;</p> <p>c) All Mediterranean coastal States to have prepared for undertaking the IMO Member State Audit Scheme, using the III Code as the audit standard and following the Framework and Procedures for the Scheme;</p>	High  High  High
4 To strengthen the Memorandum of Understanding (MoU) on port State control (PSC) in the Mediterranean region (Mediterranean MoU).	<p>a) All Contracting Parties to have maintained their mandate to REMPEC whereby the Centre should, if and when possible, offer its assistance to the Mediterranean MoU on port State control in order to improve its effectiveness and, if so requested, to facilitate cooperation between the Paris MoU and the Mediterranean MoU;</p> <p>b) All Contracting Parties to have made available the necessary resources and means for efficient functioning of the Mediterranean MoU;</p>	Continuous  High

<b>Specific Objective</b>	<b>Goal (Success Criteria)</b>	<b>Priority</b>
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5	Provision of reception facilities in ports.	<ul style="list-style-type: none"> <li>a) All Contracting Parties to have provided adequate reception facilities in their ports and considered procedures related to the cost of the use of port reception facilities, enabling their use as soon as they are available at a fee which should be reasonable and should not serve as a disincentive for their use;</li> <li>b) Garbage:</li> <li>c) Oily wastes:</li> <li>d) NLS:</li> <li>e) Sewage:</li> <li>f) For ozone-depleting substances and exhaust gas cleaning residues:</li> <li>g) For ballast water and sediments:</li> </ul>	<p>High</p> <p>High High High Medium High</p>
6	Delivery of ship-generated wastes.	<ul style="list-style-type: none"> <li>a) All Contracting Parties to have established a system of notification to a vessel's next port of call of the status of its on board retention of bilge waters, oily wastes, HNS residues, sewage, garbage, ozone-depleting substances and exhaust gas cleaning residues;</li> <li>b) All Mediterranean coastal States to have implemented national regulations empowering maritime authorities to require, if deemed necessary, Masters of vessels to discharge wastes into designated port reception facilities before sailing; and</li> </ul>	<p>High</p> <p>High</p>
7	Improved follow-up of pollution events as well as monitoring and surveillance of illicit discharges.	<ul style="list-style-type: none"> <li>a) All Contracting Parties to have established systems and procedures for national and sub-regional monitoring and surveillance including, where practicable, regular individual or coordinated aerial surveillance in the waters under their jurisdiction, if the Parties so agree, and to have reported the results to the regular Meetings of REMPEC Focal Points;</li> <li>b) All Contracting Parties to have established sub-regional systems, including procedures to over-fly the waters under the jurisdiction of a neighbouring State if the neighbouring Parties so agree, for surveillance of environmentally sensitive and/or high risk zones;</li> </ul>	<p>High</p> <p>High</p>
8	To improve the level of enforcement and of the prosecution of discharge offenders.	<ul style="list-style-type: none"> <li>a) All Mediterranean coastal States to have ensured the existence of a national legal framework (regulations) as a basis for prosecuting discharge offenders for infringements of MARPOL or of any national legal framework implementing it;</li> <li>b) All Contracting Parties to have actively participated in the MENELAS, in accordance with its terms of reference;</li> </ul>	<p>High</p> <p>High</p>

Specific Objective	Goal (Success Criteria)	Priority
9 To reduce the pollution generated by pleasure craft activities.	a) All Contracting Parties to have implemented the Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in the Mediterranean, in conjunction with the relevant provisions of the MARPOL Convention and the Regional Plan on Marine Litter Management; b) All Contracting Parties to have reported to the Secretariat on the measures they undertook to implement the said Guidelines;	High  As appropriate
10 Reduced risk of collisions by establishing Ship's Routeing Systems.	a) All Contracting Parties to have proposed to IMO, where necessary, additional appropriate Routeing Systems in the Mediterranean for possible adoption in accordance with international law; c) All Contracting Parties to have considered establishing, when and where possible and without prejudice to the sovereign right of the States, Marine Spatial Plans under their jurisdiction, ensuring that they are coherent and coordinated across the Mediterranean region;	Where necessary Where and when possible
11 Improved control of maritime traffic.	a) All Contracting Parties to have identified those areas of the Mediterranean where control of maritime traffic could be improved by the establishment of a regime based on the use of AIS in conjunction with VTS and mandatory ship reporting systems, and to have completed approval procedures as soon as possible thereafter; b) All Contracting Parties to continuously improve technical cooperation among VTS Centres of the neighbouring countries and, according to the need, to exchange information about ships by using AIS in the common surveillance area; and	High  Continuous
12 Identification of Particularly Sensitive Sea Areas (PSSAs).	b) All Contracting Parties to have ascertained, with the support of REMPEC and RAC/SPA, whether there are maritime areas within their jurisdiction which need the protection afforded by their designation as PSSAs and, if so ascertained, to have initiated the process of requesting IMO to enable such designation;	Medium
13 Reduction of marine noise caused by ships.	c) All Contracting Parties, on the basis of the IMO Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life, to have urged their national designers and shipbuilders, as well as operators of ships flying their flag to implement noise mitigation strategies on board their ships; and	Medium
14 To establish procedures for designation of places of refuge in order to minimise the risk of widespread pollution.	a) All Contracting Parties to have identified appropriate procedures as outlined in the relevant IMO Guidelines and relevant EU guidelines, supplemented by the associated Guidelines and Principles prepared by REMPEC, in order to facilitate the decision making when designating a place of refuge for a ship in need of assistance; b) All Mediterranean coastal States to have drawn up plans to deal with ships in need of assistance and have defined the modalities of the response according to its nature and to the risk incurred; and	High  Medium



Specific Objective	Goal (Success Criteria)	Priority
<p>15 To examine the possibility of designating the Mediterranean Sea or parts thereof as a SOx emission control area, under MARPOL Annex VI and effectively implement the existing energy efficiency measures.</p>	<p>a) All Contracting Parties to have established a technical committee of experts nominated by the Contracting Parties, to carry out a technical and feasibility study to examine if it is appropriate, at the current stage, to put in place a roadmap for preparation of a submission to the International Maritime Organisation to designate as a SOx ECA in certain areas of the Mediterranean Sea requiring specific environmental protection, and to explore possible further steps;</p> <p>b) Contracting Parties, having made a decision and having ratified MARPOL Annex VI, to have submitted to IMO a proposal to designate as a SOx ECA the appropriate area or areas of the Mediterranean Sea;</p> <p>c) All Contracting Parties to have participated in relevant debates at the IMO on possible future further measures for enhancing the energy efficiency of international shipping;</p>	<p>High</p> <p>Medium</p> <p>As required</p>
<p>16 To ensure that adequate emergency towing capacity is available throughout the Mediterranean to assist vessels, including tankers, in distress.</p>	<p>a) All Contracting Parties to have considered agreements with neighbouring coastal States to enable them to share towing equipment and arrangements to assist ships in distress in the Mediterranean, using as appropriate the Mediterranean guidelines on emergency towing;</p>	<p>High</p>
<p>17 To enhance the levels of pre-positioned spill response equipment under the direct control of Mediterranean coastal States.</p>	<p>a) All Contracting Parties to have shared or exchanged information concerning their respective national practices for financing the acquisition of spill response equipment with a view to assist Mediterranean Coastal States in determining all feasible methods to finance spill response equipment;</p> <p>b) All Contracting Parties to have established national stockpiles of State controlled pre-positioned oil and HNS spill response equipment and have kept updated the related inventory at national level and regional level through REMPEC;</p>	<p>High</p> <p>Medium</p>
<p>18 To encourage the participation of the regional scientific and technical institutions in research and development activities and to</p>	<p>a) Scientific and technical institutions, as well as the industry, to have actively participated in R&amp;D activities and programmes related to accidental marine pollution prevention, preparedness and response;</p> <p>b) National institutions and industry to have presented the results of their R&amp;D activities and programmes in international fora;</p> <p>c) National R&amp;D activities to have been presented using the page created by REMPEC within the Country Profiles website;</p>	<p>Continuous</p> <p>Continuous</p> <p>Continuous</p>

facilitate transfer of technology.		
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Specific Objective	Goal (Success Criteria)	Priority
19 To improve the quality, speed and effectiveness of decision-making process in case of marine pollution incidents through the development and introduction of technical and decision support tools.	<ul style="list-style-type: none"> <li>a) All Contracting Parties to have stimulated the development and improvement of specific regional decision support tools by promoting active participation of their national scientific institutions and programmes and to provide REMPEC with relevant data-sets and other information that might be available in their respective countries;</li> <li>b) All Contracting Parties to have actively participated through a country lead approach in the implementation of the programme of work of the MTWG as defined by the Meetings of Focal Points of REMPEC;</li> <li>c) National oceano-meteorological institutes to have joined the MONGOOS and to contribute to the maintenance of the above Mediterranean tools through regular data update;</li> <li>d) All Contracting Parties to have contributed to the development of a quality assurance programme for data reporting and collection in line with the EcAp Monitoring Programme;</li> </ul>	<p>Continuous</p> <p>As required</p> <p>Continuous</p> <p>As required</p>
20 To increase as much as practical, the level of knowledge in the field of preparedness and response to accidental marine pollution by oil and other harmful substances.	<ul style="list-style-type: none"> <li>a) All Contracting Parties to have established national training programmes for response to incidents involving oil and other HNS, based <i>inter alia</i> on IMO Model training courses Levels 1 and 2, for training national operating level and supervisory personnel respectively, with a view to ensuring a continuous education of such personnel;</li> <li>b) All Contracting Parties to have disseminated the knowledge acquired through train the trainer courses and have replicated the training courses at local and national level;</li> <li>e) All Contracting Parties to have carried out regular exercises to test their national response capacity in cooperation with all relevant stakeholders and to the possible extent involving neighbour coastal states to enhance bilateral and sub-regional cooperation;</li> </ul>	<p>High</p> <p>Continuous</p> <p>Continuous</p>

Specific Objective	Goal (Success Criteria)	Priority
<p>21 To revise the existing recommendations, principles and guidelines, and to develop new ones aimed at facilitating international cooperation and mutual assistance within the framework of 2002 Prevention and Emergency Protocol.</p>	<p>a) All Contracting Parties to have participated in the revision of the existing recommendations, principles and guidelines concerning accidental marine pollution preparedness, response and mutual assistance, as well as prevention of pollution from ships;</p> <p>b) All Contracting Parties to have identified all such recommendations, principles and guidelines that need to be revised, updated and/or amended;</p> <p>c) All Contracting Parties to have indicated which additional recommendations, principles and guidelines should be adopted at the regional level with a view to facilitating the implementation of the 2002 Prevention and Emergency Protocol in the field of international cooperation and mutual assistance;</p> <p>d) All Contracting Parties to have streamlined their respective national procedures for entry into, movement within and exit from their territory of specialised personnel and equipment that might be required in case of emergency;</p> <p>c) All Contracting Parties to have considered the use of the CECIS Marine Pollution in order to enhance coordination of requests and offers of international assistance;</p>	<p>High</p> <p>High</p> <p>High</p> <p>High</p>
<p>22 To strengthen the capacity of individual coastal States to respond efficiently to marine pollution incidents through development of sub-regional operational agreements and contingency plans.</p>	<p>a) All Contracting Parties to have assessed, prepared and adopted national contingency plans and to have established national systems for preparedness for and response to oil and HNS spills from ships, sea ports and oil handling facilities;</p> <p>e) All Contracting Parties to have negotiated, concluded and implemented sub-regional agreements covering the entire Mediterranean region, including the relevant sub-regional contingency plans;</p>	<p>High</p> <p>High</p>

**B) Secretariat's (REMPEC) Goals**

**Note:** The requests addressed to the Secretariat (REMPEC) have not been assigned a priority in as much as most of them can only be carried out once the corresponding demand has been received from the Contracting Parties and, therefore, have the same priority as per the Parties. In general, it is assumed that the tasks entrusted to the Secretariat will be tackled as soon as possible, provided the necessary human and financial resources are available.

Specific Objective	Goal (Success Criteria)
1 Ratification of relevant international maritime conventions related to the protection of the marine environment (see <b>Appendix 2</b> ).	<ul style="list-style-type: none"> <li>c) &amp; d) REMPEC to have provided Mediterranean coastal States with advice and assistance in the process of ratifying and implementing the international conventions set forth in subparagraphs a) and b) (see under Contracting Parties);</li> <li>e) REMPEC to have provided assistance for the above purposes under the IMO's ITCP.</li> </ul>
2 To control and manage ships' biofouling to minimise the transfer of invasive aquatic species.	<ul style="list-style-type: none"> <li>c) REMPEC to have provided Mediterranean coastal States with advice and assistance in order to fulfil the aims under sub-paragraphs (a) and (b) (see under Contracting Parties).</li> </ul>
3 Ensuring effective maritime administrations.	<ul style="list-style-type: none"> <li>d) REMPEC to have assisted Mediterranean coastal States in the development of a National Action Plan, designed to enable them to assess progress made, to guide them in the full implementation of the Regional Strategy in a tailored manner, and to conduct a national assessment of their capabilities and define the necessary remedial action;</li> <li>e) REMPEC to have assisted Mediterranean coastal States in enhancing the performance of their maritime administrations in line with new IMO developments, in particular the IMO Member State Audit Scheme (IMSAS);</li> <li>f) REMPEC to have provided support to Mediterranean coastal States to prepare for undertaking the IMO Member State Audit Scheme, having explored the possible technical assistance to which some of them may be entitled under the IMO's ITCP and other sources; and</li> <li>g) REMPEC to have contributed to improve the knowledge and expertise of flag State inspection officers by running a programme of training activities related to relevant international instruments, in particular MARPOL, ensuring appropriate training for ship inspectors.</li> </ul>

Specific Objective	Goal (Success Criteria)
<p>4 To strengthen the Memorandum of Understanding (MoU) on port State control (PSC) in the Mediterranean region (Mediterranean MoU).</p>	<p>c) REMPEC to have participated in the Mediterranean MoU Committee;</p> <p>d) REMPEC to have associated itself with port State control training activities addressing environmental matters, including those related to Anti Fouling Systems, Ballast Water Management and biofouling, where appropriate, in collaboration with recognised training institutions within the region; and</p> <p>e) REMPEC to have worked in association with other MoUs on port State control in the organisation and follow up analysis of concentrated inspection campaigns on MARPOL related deficiencies.</p>
<p>5 Provision of reception facilities in ports.</p>	<p>h) REMPEC to have provided well-structured advice assessing the type, specifications and capacity of the equipment necessary at major ports to efficiently and effectively handle shipboard residues and mixtures, as well as guidelines or sample form of operational plans, taking into account the latest edition of the IMO Comprehensive Manual on Port Reception Facilities, the IMO Guide to Good Practice for Port Reception Facility Providers and Users and the new requirements incorporated since 2005 in the relevant mandatory instruments, to assist Contracting Parties in the accomplishment of this objective; and</p> <p>i) REMPEC to have contributed to the implementation of the Regional Plan on Marine Litter Management, as deemed appropriate, in preparing the advice mentioned in subparagraph h) above, in particular for the preparation of specific guidelines to determine the application of charges at reasonable costs for the use of port reception facilities or, where appropriate, the application of a No-Special-Fee system, in consultation with various relevant regional and global institutions and initiatives.</p>
<p>6 Delivery of ship generated wastes.</p>	<p>c) REMPEC to have provided advice on the subject.</p>

Specific Objective	Goal (Success Criteria)
7 Improved follow-up of pollution events as well as monitoring and surveillance of illicit discharges.	<ul style="list-style-type: none"> <li>c) REMPEC to have analysed, as far as practical, through direct correspondence with the Contracting Parties, the reasons behind the past poor record of compliance with this objective by many Contracting Parties;</li> <li>d) REMPEC to have organised and participated in any new activities on this issue where the Centre is requested to play a role;</li> <li>e) REMPEC to have facilitated the organisation of regular coordinated or individual aerial surveillance operation for illicit ship pollution discharges;</li> <li>f) REMPEC to have explored the continuation of the CleanSeaNet services offered by EMSA available to all Contracting Parties to the Barcelona Convention that are not Member States of the EU, currently through the SAFEMED III Project, until 2021 and beyond; and</li> <li>g) REMPEC to have cooperated with other Regional Agreements and EMSA.</li> </ul>
8 To improve the level of enforcement and of the prosecution of discharge offenders.	<ul style="list-style-type: none"> <li>c) REMPEC to have provided support to Contracting Parties, and to have acted as the Secretariat of MENELAS and reported on its activities to the Contracting Parties at each of their Ordinary Meetings;</li> <li>d) REMPEC to have maintained the MENELAS information system; and</li> <li>e) REMPEC to have collaborated with the UNEP/MAP Secretariat to further explore possible synergies with the Regional Seas framework.</li> </ul>
9 To reduce the pollution generated by pleasure craft activities.	<ul style="list-style-type: none"> <li>c) REMPEC to have assisted Mediterranean coastal States in the implementation of the Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in the Mediterranean; and</li> <li>d) REMPEC to have to keep a record of the relevant reports sent by the Contracting Parties and to have submitted periodical synthetic reports to the relevant meetings of the Contracting Parties.</li> </ul>
10 Reduced risk of collisions by establishing Ship's Routeing Systems.	<ul style="list-style-type: none"> <li>c) REMPEC to have assisted Contracting Parties, either individually or collectively, in the identification of possible sea areas where a routeing system might be deemed necessary and in the preparation of the relevant documentation to initiate the process at IMO; and</li> <li>d) REMPEC to have supported Contracting Parties in their efforts toward the establishment of Marine Spatial Plans.</li> </ul>

Specific Objective	Goal (Success Criteria)
11 Improved control of maritime traffic.	c) REMPEC to have negotiated, on behalf of Contracting Parties, with appropriate organisations and agencies the international financial assistance required to establish the regime referred to in subparagraph a) of this specific objective.
12 Identification of Particularly Sensitive Sea Areas (PSSAs).	<p>b) REMPEC to have initiated the process of identification of those areas which, after examination by the REMPEC Focal Points, could be proposed for designation as PSSAs taking also into account, where appropriate, possible synergies with actions undertaken on the establishment of MSPs referred to under Specific Objective 10;</p> <p>c) REMPEC to have assisted Mediterranean coastal States to conduct the necessary studies and to prepare the relevant submissions to IMO for the designation of PSSAs; and</p> <p>d) REMPEC to have explored the possibility of obtaining assistance for the above purposes under the IMO's ITCP.</p>
13 Reduction of marine noise caused by ships.	b) REMPEC to have provided Mediterranean coastal States with advice and assistance in order to fulfil this specific objective.
14 To establish procedures for designation of places of refuge in order to minimise the risk of widespread pollution.	c) REMPEC to have provided assistance to countries to define procedures and draw up plans as specified in this specific objective and to have assisted them in raising funds for that purpose, <i>inter alia</i> , from the IMO's ITCP.
15 To examine the possibility of designating the Mediterranean Sea or parts thereof as a SOx emission control area, under MARPOL Annex VI and effectively implement the existing energy efficiency measures.	<p>d) REMPEC to have supported the preparation of a study by the technical committee, aimed at assessing the feasibility of the alternatives referred to in subparagraph a) of this specific objective;</p> <p>e) REMPEC to have assisted Mediterranean coastal States, either individually or collectively, to prepare a submission to IMO proposing the designation as a SOx ECA of an area or areas of the Mediterranean Sea;</p> <p>f) REMPEC to have provided Contracting Parties with relevant information on possible future further measures for enhancing the energy efficiency of international shipping;</p> <p>g) REMPEC to have assessed existing data collection and reporting systems for fuel consumption of ships in the Mediterranean region and carried out pilot studies on voluntary "Data Collection and Reporting"; and</p> <p>h) REMPEC to have explored the possibility of obtaining assistance for the above purposes under the IMO's ITCP.</p>



Specific Objective	Goal (Success Criteria)
16 To ensure that adequate emergency towing capacity is available throughout the Mediterranean to assist vessels, including tankers, in distress.	<ul style="list-style-type: none"> <li>b) REMPEC to have assisted Contracting Parties that so request in preparing and implementing the agreements referred to in sub-paragraph a) of this specific objective; and</li> <li>c) REMPEC to have assessed the capability of Mediterranean coastal States in terms of emergency towing equipment and to have provided support as requested.</li> </ul>
17 To enhance the levels of pre-positioned spill response equipment under the direct control of Mediterranean coastal States.	<ul style="list-style-type: none"> <li>c) REMPEC to have provided assistance to the States which so request in identifying the minimum required level of pre-positioned State-controlled spill response equipment;</li> <li>d) REMPEC to have disseminated to the Contracting Parties the information concerning the applicable ways of financing the acquisition of such equipment and have assisted them in this regard, as necessary;</li> <li>e) REMPEC to have maintained the RIS and to have updated the related inventory of the above equipment; and</li> <li>f) REMPEC to have envisaged possible synergies to interconnect the RIS with CECIS and to have facilitated the updating of these databases through an interconnected system.</li> </ul>
18 To encourage the participation of the regional scientific and technical institutions in research and development activities and to facilitate transfer of technology.	<ul style="list-style-type: none"> <li>d) REMPEC to have assisted regional institutions and industry in identifying fields of research in which there is a need for enhancement of the state-of-the-art of spill preparedness and response technologies and techniques;</li> <li>e) REMPEC to have assisted in the dissemination and exchange of results of national R&amp;D activities and programmes;</li> <li>f) REMPEC to have facilitated the participation of national and regional research institutions and industry in the relevant international fora; and</li> <li>g) REMPEC to have cooperated with other Regional Agreements in carrying out the above requests.</li> </ul>

Specific Objective	Goal (Success Criteria)
<p>19 To improve the quality, speed and effectiveness of decision-making process in case of marine pollution incidents through the development and introduction of technical and decision support tools.</p>	<ul style="list-style-type: none"> <li>e) REMPEC to have revised and upgraded the existing IT based decision support tools, and to have developed new IT based decision support tools and to have made them available to the competent national authorities of the Contracting Parties;</li> <li>f) REMPEC to have facilitated the coordination and the implementation of the programme of work of the Mediterranean Technical Working Group;</li> <li>g) REMPEC to have explored possible interaction and capitalisation of decision support tools available at Mediterranean and European levels;</li> <li>h) REMPEC to have supported the development of a quality assurance programme for data reporting and collection in line with the EcAp Monitoring Programme; and</li> <li>i) REMPEC to have integrated any developments on decision support tools under specific objectives 20, 21 and 22.</li> </ul>
<p>20 To increase as much as practical, the level of knowledge in the field of preparedness and response to accidental marine pollution by oil and other harmful substances.</p>	<ul style="list-style-type: none"> <li>d) REMPEC to have assisted Contracting Parties in the development and implementation of their national training programme;</li> <li>e) REMPEC to have delivered “Training of Trainers” courses, based in particular on the work developed under POSOW Projects;</li> <li>f) REMPEC to have focused regional training courses on specific, highly specialised issues;</li> <li>g) REMPEC to have taken into account, when preparing and supporting the implementation of national training programmes, the relevant model training courses updated by the IMO Sub-Committee on Pollution Prevention and Response (PPR); other Regional Agreements, and EMSA under its relevant Action Plans;</li> <li>h) REMPEC to have promoted the organisation of regular exercises to test national and sub-regional response capacity; and</li> <li>i) REMPEC to have explored the possibility of obtaining assistance for the above purposes under the IMO’s ITCP and to have mobilised other external resources and means.</li> </ul>

Specific Objective	Goal (Success Criteria)
<p>21 To revise the existing recommendations, principles and guidelines, and to develop new ones aimed at facilitating international cooperation and mutual assistance within the framework of 2002 Prevention and Emergency Protocol.</p>	<ul style="list-style-type: none"> <li>e) REMPEC to have compiled an inventory of the applicable national procedures governing the entry into, movement within and exit from their territory of specialised personnel and equipment that might be provided as mutual assistance in case of emergency, and to have prepared recommendations for improving those national procedures that could seriously hamper providing such assistance;</li> <li>f) REMPEC to have proposed for adoption to the Meetings of the Contracting Parties revised, updated and/or amended texts of the relevant regional recommendations, principles and guidelines;</li> <li>g) REMPEC to have proposed for adoption to the Meetings of the Contracting Parties new recommendations, principles and guidelines, as necessary;</li> <li>h) REMPEC to have cooperated with IMO, other Regional Agreements, EMSA under its relevant Action Plans and the Union Civil Protection Mechanism, taking into account any new developments on international cooperation and mutual assistance; and</li> <li>i) REMPEC to have explored the possibility of obtaining assistance for the above purposes under the IMO's ITCP, and to have mobilised other external resources and means.</li> </ul>
<p>22 To strengthen the capacity of individual coastal States to respond efficiently to marine pollution incidents through development of sub-regional operational agreements and contingency plan.</p>	<ul style="list-style-type: none"> <li>c) REMPEC to have assisted Contracting Parties that have not yet adopted their national contingency plans or need to review them to integrate HNS and/or offshore components, in the development or updating and implementation of national preparedness and response systems;</li> <li>d) REMPEC to have facilitated the assessment of national contingency plans and national response systems, through self-assessment or peer reviews to commensurate their national response capacities with the existing oil and HNS spill risks from ships, sea ports and oil handling facilities and to have evaluated gaps between national plans in order to define appropriate actions to ensure the compatibility of operational arrangements in view of the conclusion of bilateral and/or sub-regional agreements;</li> <li>e) REMPEC to have assisted Contracting Parties in preparing sub-regional contingency plans and in drafting agreements on their implementation;</li> <li>f) REMPEC to have utilised advice and material which may be made available by other Regional Agreements; and</li> <li>g) REMPEC to have explored the possibility of obtaining assistance for the above purposes under the IMO's ITCP, and to have mobilised other external resources and means.</li> </ul>

**Appendix 2**  
**List of Relevant International Conventions and European Union Legislation**

## **LIST OF RELEVANT INTERNATIONAL CONVENTIONS AND EUROPEAN UNION LEGISLATION**

### **INTERNATIONAL CONVENTIONS AND OTHER MANDATORY INSTRUMENTS**

**Note:** The status of the Conventions and other mandatory instruments listed below corresponds to March 2015. In implementing the Regional Strategy, Contracting Parties and REMPEC should endeavour to apply the relevant instruments as amended at the time of implementation.

#### **1. International Conventions dealing with maritime safety and prevention of pollution from ships:**

- the International Convention on Load Lines, 1966 (LL 1966);
- the Protocol of 1988 relating to the International Convention on Load Lines, 1966;
- the International Convention for the Safety of Life at Sea, 1974 (SOLAS 1974),
- the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocols of 1978 and 1997 relating thereto (MARPOL) and its Annexes;
- the International Convention on Standards of Training, Certification and Watch keeping for Seafarers, 1978 as amended in 1995 (STCW 1995);
- the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG 1972), as amended;
- the International Convention on Tonnage Measurement of Ships, 1969 (TONNAGE 1969);
- the International Convention on the Control of Harmful Antifouling Systems on Ships, 2001;
- the International Convention for the Control and Management of Ship's Ballast Water and Sediments, 2004;
- the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009;
- the 1996 London Protocol on Prevention of Pollution by Dumping of Wastes and Other Matter; and
- the ILO Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147), and the Protocol of 1996 relating thereto.

#### **2. International Conventions dealing with combating pollution:**

- the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC);
- the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances 2000 (OPRC-HNS Protocol);
- the International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (INTERVENTION 1969) and its Protocol relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil, 1973 (INTERVENTION PROTOCOL 1973);
- the International Convention on Salvage, 1989 (SALVAGE 1989); and
- the Nairobi International Convention on the Removal of Wrecks, 2007.

#### **3. International Conventions dealing with liability and compensation for pollution damage:**

- the International Convention on Civil Liability for Oil Pollution Damage, 1992 (CLC 1992);
- the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992 (FUND 1992);
- the Protocol on the Establishment of a Supplementary Fund for Oil Pollution Damage, 2003;

- the Protocol of 1996 to amend the Convention on Limitation of Liability for Maritime Claims, 1976;
- the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001; and
- the 2010 Protocol to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996.

## **RELEVANT EUROPEAN UNION LEGISLATION**

Directive 2005/33/EC of the European Parliament and of the Council of 6 July 2005 amending Council Directive 1999/32/EC of 26 April 1999 relating to a reduction in the sulphur content of certain liquid fuels (*OJ L 191 of 22.7.2005*)

Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) (*OJ L 164 of 25.06.2008*)

Directive 2009/15/EC of the European Parliament and of the Council of 23 April 2009 on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime administrations (*OJ L 131 of 28.5.2009*)

Directive 2009/16/EC of the European Parliament and of the Council of 23 April 2009 on port State control (*OJ L 131 of 28.5.2009*) amended by:

- *Directive 2013/38/EU of the European Parliament and of the Council, of 12 August 2013 (OJ L 218 of 14.8.2013); and*
- *Regulation (EU) n° 1257/2013 of the European Parliament and of the Council, of 20 November 2013 (OJ L 330 of 10.12.2013).*

Directive 2009/17/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2002/59/EC establishing a Community vessel traffic monitoring and information system (*OJ L 131 of 28.5.2009*)

Commission Directive 96/40/EC, of 25 June 1996, establishing a common model for an identity card for inspectors carrying out port State control (*OJ L 196 of 7.8.1996*)

Regulation (EC) n° 336/2006 of the European Parliament and of the Council of 15 February 2006 on the implementation of the International Safety Management Code within the Community and repealing Council Regulation (EC) No 3051/95 (*OJ L 64 of 4.3.2006*)

Directive 2014/89/EU of the European Parliament and of the Council establishing a framework for maritime spatial planning, which should be transposed, by 2016, by EU Member States in view of the establishment of their Maritime Spatial Plans (MSP) by 2021 (*OJ L 257 of 28.8.2014*)

Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 on marine equipment and repealing Council Directive 96/98/EC (*OJ L 257 of 28.8.2014*)

Directive 99/95/EC of the European Parliament and of the Council of 13 December 1999 concerning the enforcement of provisions in respect of seafarers' hours of work on board ships calling at Community ports (*OJ L 14 of 20.1.2000*)

Directive 2000/59/EC of the European Parliament and of the Council of 27 November 2000 on port reception facilities for ship-generated waste and cargo residues (*OJ L 332 of 28.12.2000*), amended by:

- *Commission Directive 2002/84/EC, of 5 November 2001 (OJ L 324 of 29.11.2002);*
- *Commission Directive 2007/71/EC, of 13 December 2007 (OJ L 329 of 14.12.2007);*
- and
- *Regulation (EC) n° 1137/2008, of 22 October 2008 (OJ L 311 of 21.11.2008).*

Directive 2008/106/EC of the European Parliament and of the Council of 19 November 2008 on the minimum level of training of seafarers (recast) (*OJ L 323, 3.12.2008*)

Directive 2001/96/EC of the European Parliament and the Council of 4 December 2001 establishing harmonised requirements and procedures for the safe loading and unloading of bulk carriers (*OJ L 13 of 16.1.2002*), amended by:

- *Commission Directive 2002/84/EC, of 5 November 2001 (OJ L 324 of 29.11.2002); and*
- *Regulation (EC) n° 1137/2008, of 22 October 2008 (OJ L 311 of 21.11.2008).*

Regulation (EU) n° 530/2012 of the European Parliament and of the Council of 13 June 2012 on the accelerated phasing-in of double-hull or equivalent design requirements for single-hull oil tankers (*OJ L 172 of 30.6.2012*)

Directive 2002/59/EC of the European Parliament and the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC (*OJ L 208 of 5.8.2002*), amended by:

- *Directive 2009/17/EC, of 23 April 2009 (OJ L 131 of 28.5.2009);*
- *Directive 2009/18/EC, of 23 April 2009 (OJ L 131 of 28.5.2009);*
- *Commission Directive 2011/15/EU, of 23 February 2011 (OJ L 49 of 24.2.2011); and*
- *Commission Directive 2014/100/EU, of 28 October 2014 (OJ L 308 of 29.10.2014).*

Regulation (EC) n° 1406/2002 of the European Parliament and of the Council of 27 June 2002 establishing a European Maritime Safety Agency (*OJ L 208, 05.08.2002*), amended by:

- *Regulation (EC) n° 1644/2003, of the European Parliament and of the Council of 22 July 2003 (OJ L 245 of 29.09.2003);*
- *Regulation (EC) n° 724/2004, of the European Parliament and of the Council of 31 March 2004 amending Regulation (EC) No 1406/2002 (OJ L 123 of 29.04.2004);*
- *Regulation (EC) n° 1891/2006, of 18 December 2006 (OJ L 394 of 30.12.2006); and*
- *Regulation (EU) n° 100/2013 of 15 January 2013 (OJ L 39 of 09.2.2013).*

Council Decision (2002/762/EC) of 19 September 2002 authorising the Member States, in the interest of the Community, to sign, ratify or accede to the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 (the Bunkers Convention) (*OJ L 256 of 25.09.2002*)

Regulation (EC) n° 2099/2002 of the European Parliament and of the Council of 5 November 2002 establishing a Committee on Safe Seas and Prevention of Pollution from Ships (COSS) and amending the Regulations on maritime safety and prevention of pollution from ships (*OJ L 324 of 29.11.2002*), amended by:

- *Commission Regulation (EC) n° 415/2004, of 5 March 2004 (OJ L 68 of 06.03.2004);*
- *Commission Regulation (EC) n° 93/2007, of 30 January 2007 (OJ L 22 of 31.1.2007);*
- *Regulation (EC) n° 596/2009, of 18 June 2009 (OJ L 188 of 18.7.2009); and*
- *Regulation (EU) n° 530/2012, of 13 June 2012 (OJ L 172 of 30.6.2012).*

Directive 2002/84/EC of the European Parliament and of the Council of 5 November 2002 amending the Directives on maritime safety and the prevention of pollution from ships (*OJ L 324 of 29.11.2002*), amended by:

- *Directive 2008/106/EC, of 19 November 2008 (OJ L 323 of 3.12.2008);*
- *Directive 2009/45/EC, of 6 May 2009 (OJ L 163 of 25.6.2009); and*
- *Directive 2014/90/EU, of 23 July 2014 (OJ L 257 of 28.8.2014).*

Council Decision (2002/971/EC) of 18 November 2002 authorising the Member States, in the interest of the Community, to ratify or accede to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 (the HNS Convention) (*OJ L 337 of 13.12.2002*)

Regulation (EC) n° 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compounds on ships (*OJ L 115 of 9.5.2003*), amended by:

- *Commission Regulation (EC) n° 536/2008, of 13 June 2008 (OJ L 156 of 14.06.2008)*
- and*
- *Regulation (EC) n° 219/2009, of 11 March 2009 (OJ L 87 of 31.3.2009).*

Council Decision (2004/246/EC) of 2 March 2004 authorising the Member States to sign, ratify or accede to, in the interest of the European Community, the Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992, and authorising Austria and Luxembourg, in the interest of the European Community, to accede to the underlying instruments (*OJ L 78 of 16.3.2004*), amended by:

- *Council Decision (2004/664/EC), of 24 September 2004 (OJ L 303 of 30.9.2004)*

Directive 2012/33/EU of the European Parliament and of the Council of 21 November 2012 amending Council Directive 1999/32/EC as regards the sulphur content of marine fuels (L 327/1 of 27.11.2012)



**Appendix 3**  
**Estimated Cost of Implementation of the Regional Strategy**

### **Estimated Cost of Implementation of the Regional Strategy**

**Notes:**

1. The cost estimations tabulated below have been assessed on the basis of the Draft estimation of required means for the implementation of the Mediterranean Offshore Action Plan and drawing from data and assumptions made in the 2005 Study Concerning the Estimate of Costs of the Implementation of the Regional Strategy for Prevention of and Response to Marine Pollution from Ships in the Mediterranean. The estimated costs represent rough estimates and, therefore, should not be taken as representing a proper implementation budget which, if required, should be undertaken as a separate exercise.
2. The estimated means required by the Secretariat (REMPEC) assume that the Centre is adequately staffed. The implementation of the Regional Strategy should require additional dedicated staff, preferably funded through a project or external donors, or a succession of officers seconded by the States. The present estimated cost of implementation of the Regional Strategy does not include the cost related to any additional staff.
3. Where the activity concerned is deemed to be part of the Administration's or REMPEC's habitual responsibilities, once the additional staff have been engaged, the estimated cost is given as nil.
4. No attempt has been made to quantify the cost of providing adequate port reception facilities as this will vary greatly from country to country and depends on many variables (reference may be made to the Study concerning the estimate of costs of the implementation of the regional strategy for prevention of and response to marine pollution from ships in the Mediterranean - REMPEC/WG.25/6).
5. The services of external expert consultants and the holding of regional seminars and training activities have been considered necessary for the timely and thorough implementation of specific objectives 3, 5, 6, 9, 12, 14, 15, 17, 19, 20 and 21.

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
<b>1. Ratification of relevant international maritime conventions related to the protection of the marine environment.</b>	a) Necessary actions are taken to ratify and implement, with <i>high priority</i> , the MARPOL Convention and its six annexes, to ensure their transposition into national law, placing special emphasis on revised Annex V (Regulations for the prevention of pollution by garbage from ships) and Annex VI (Regulations for the prevention of air pollution from ships) as amended, and to cooperate through REMPEC to ensure full compliance with its provisions	Appropriate action by the maritime administration	Nil
	b) Necessary actions are taken to ratify and implement, with <i>high priority</i> , other IMO relevant international conventions and to ensure their transposition into national law by the same time and full compliance with their provisions	Appropriate action by the maritime administration	Nil
	c) Advice and assistance provided to Mediterranean coastal States, which so request, in order to meet the priorities set forth in sub-paragraphs (a) and (b) above	Staff time.	Nil
	d) Assistance provided to Mediterranean coastal States, which so request, in their efforts to ratify and implement the International Convention for the Control and Management of Ships' Ballast Water and sediments, 2004, in conjunction with the implementation of the BWM Mediterranean Strategy and of the GloBallast Partnerships Project in the Mediterranean in collaboration with the RAC/SPA	Staff time	Nil
	e) Assistance provided for the above purposes under the IMO's ITCP	Staff time	Nil

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
<p><b>2. To control and manage ships' biofouling to minimise the transfer of invasive aquatic species.</b></p>	<p>a) Application of the 2011 Guidelines for the control and management of ships' biofouling to minimise the transfer of invasive aquatic species, with <i>medium priority</i>, when adopting measures to minimise the risk of introducing such species via biofouling, and any experience gained in their implementation is reported to IMO</p>	<p>Appropriate action by the maritime administration, with additional support</p>	<p>Nil</p>
	<p>b) Dissemination of the Guidelines to the shipping industry and other interested parties, which are requested to cooperate in minimising the risks involved</p>	<p>Ditto.</p>	<p>Nil</p>
	<p>c) Advice and assistance provided to Mediterranean coastal States, which so request, in order to fulfil the aims under subparagraphs (a) and (b) above</p>	<p>Staff time</p>	<p>Nil</p>
<p><b>3. Ensuring effective maritime administrations.</b></p>	<p>a) NAP prepared, with <i>high priority</i>, with the assistance of REMPEC if necessary, to enable the assessment of the progress made, and to guide the full implementation of the Regional Strategy in a tailored manner, and to conduct a national assessment of the capabilities and define the necessary remedial action</p>	<p>Appropriate action by the maritime administration  Regional seminar</p>	<p>Nil  75,000<sup>22</sup></p>
	<p>b) All Mediterranean coastal States that have not already done so, have enhanced, with <i>high priority</i>, the performance of their maritime administrations on the basis of the NAP mentioned above, by conducting a self-assessment of their national capabilities and performance in giving full and complete effect to MARPOL and other applicable conventions, by using the guidance set out in the relevant IMO Resolution dealing with the self-assessment of flag State performance and other relevant</p>	<p>Ditto.</p>	<p>Nil</p>

<sup>22</sup> Estimated cost of a two-day seminar held in Malta, with two participants per country in attendance plus the help of an external expert consultant.

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	IMO recommendations and guidelines		
	c) All Mediterranean coastal States that have not already done so, in their efforts to protect the marine environment and once the self-assessment mentioned in subparagraph a) above has been carried out successfully and any remedial action taken, have undertaken the IMO Member State Audit Scheme, using the III Code as the audit standard and following the Framework and Procedures for the IMO Member State Audit Scheme, once it is fully institutionalised when the said III Code becomes mandatory under MARPOL and other Conventions	Ditto.	Nil
	d) Assistance provided to the Mediterranean coastal States which so request in the development of the NAP mentioned in sub-paragraph a) above, designed to enable them to assess progress made, to guide them in the full implementation of the Regional Strategy in a tailored manner, and to conduct a national assessment of their capabilities and define the necessary remedial action	Staff time and travel <sup>23</sup>  External consultancy assistance	See footnote 2  210,000 <sup>24</sup>
	e) Continuous assistance provided to Mediterranean coastal States which so request in enhancing the performance of their maritime administrations in line with new IMO developments, in particular IMSAS	Ditto.	Ditto.
	f) Support provided to the Mediterranean coastal States which so request to prepare for undertaking the IMO Member State Audit Scheme, having explored the possible technical assistance to which some of them may be entitled under the IMO's ITCP and other sources	Ditto.	Ditto.

<sup>23</sup>A travel budget for the Secretariat amounting to 15,000 euro for six years (2016-2021) has been estimated, as reflected at the end of the table.

<sup>24</sup>A technical support budget amounting to 10,000 euro per country has been estimated.

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	g) Continuous improvement of the knowledge and expertise of flag State inspection officers by establishing, through REMPEC, a programme of training activities related to relevant international instruments, in particular MARPOL, ensuring appropriate training for ship inspectors	Staff time  External consultancy assistance	Nil  15,000
4. To strengthen the Memorandum of Understanding (MoU) on port State control (PSC) in the Mediterranean region (Mediterranean MoU).	a) The mandate to REMPEC whereby the Centre should, if and when possible, offer its assistance to the Mediterranean MoU on port State control in order to improve its effectiveness and, if so requested, to facilitate cooperation between the Paris MoU and the Mediterranean MoU is maintained	Appropriate action by the maritime administration	Nil
	b) The necessary resources and means to enable the Mediterranean MoU to function efficiently are made available, with <i>high priority</i>	Ditto.	Nil
	c) Participation in the meetings of the MoU Committee	Staff time and travel <sup>25</sup>	See footnote 4
	d) The Secretariat is associated with port State control training activities addressing environmental matters, including those related to Anti Fouling Systems, Ballast Water Management and biofouling, where appropriate, in collaboration with recognised training institutions within the region	Ditto.	Ditto.
	e) The Secretariat works in association with the MoUs on port State control, in particular with the Paris MoU, on the organisation and follow-up analysis of concentrated inspection campaigns on MARPOL-related deficiencies	Ditto.	Ditto.

<sup>25</sup>A travel budget for the Secretariat amounting to 15,000 euro per year for six years (2016-2021) has been estimated, as reflected at the end of the table.

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
<p><b>5. Provision of reception facilities in ports.</b></p>	<p>a) Provision (including activities b) to g)) of adequate reception facilities in their ports, with <i>high priority</i>, unless specified otherwise and if appropriate action has not been already taken and procedures related to the cost of the use of such facilities have been considered, enabling their use as soon as they are available at a fee which should be reasonable and should not serve as a disincentive for their use</p>	<p>Appropriate action by the maritime administration, in conjunction with other agencies</p>	<p>See note 4 above</p>
	<p>h) Well-structured advice provided to Mediterranean coastal States, which so request, that may include, but not necessarily limited to, assessing the type, specifications, and capacity of the equipment necessary at major ports to efficiently and effectively handle shipboard residues and mixtures. Such assistance may also include preparation of guidelines or sample form of operation plans. All this should be based on previous work done on this matter and taking into account the latest edition of the IMO Comprehensive Manual on Port Reception Facilities, the IMO Guide to Good Practice for Port Reception Facility Providers and Users and the new requirements incorporated since 2005 in the relevant mandatory instruments, to assist Contracting Parties in the accomplishment of this objective</p>	<p>Staff time  External consultancy assistance  Regional seminar</p>	<p>Nil  15,000<sup>26</sup>  60,000<sup>27</sup></p>

<sup>26</sup>External consultant to prepare required advice and assist with the holding of the regional seminar.

<sup>27</sup> Estimated cost of a two-day seminar held in Malta, with two participants per country in attendance, plus the help of an external expert consultant.

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	i) Contribution to the implementation of the Regional Plan on Marine Litter Management, as deemed appropriate, in preparing the advice mentioned in subparagraph h) above, in particular for the preparation of specific guidelines to determine the application of charges at reasonable costs for the use of port reception facilities or, where appropriate, the application of a No-Special-Fee system, in consultation with various relevant regional and global institutions and initiatives	Staff time  External consultancy assistance	Nil  75,000 <sup>28</sup>
<b>6. Delivery of ship-generated wastes.</b>	a) Establishment, with <i>high priority</i> and if appropriate action has not been already taken, of a system of notification to a vessel's next port of call of the status of its on board retention of bilge waters, oily wastes, HNS residues, sewage, garbage, ozone-depleting substances and exhaust gas cleaning residues	Appropriate action by the maritime administration	Nil
	b) Implementation by all Mediterranean coastal States, with <i>high priority</i> , of national regulations empowering maritime authorities to require, if they deem it necessary, the Masters of vessels to discharge wastes into designated port reception facilities before sailing	Ditto.	Nil
	c) Advice provided on the subject as may be requested by Contracting Parties, possibly in association with the well-structured advice requested under the Specific Objective on the provision of reception facilities in ports, taking also into account, where appropriate, the Regional Plan on Marine Litter Management	Staff time and external consultancy assistance under activity 5 h) above	Nil

<sup>28</sup>External consultant to support the preparation of specific guidelines and to provide technical support to up to 10 main ports in the region.



SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
<b>7. Improved follow-up of pollution events as well as monitoring and surveillance of illicit discharges.</b>	a) Establishment, with <i>high priority</i> and if appropriate action has not been already taken, of systems and procedures for national and sub-regional monitoring and surveillance including, where practicable, regular individual or coordinated aerial surveillance in the waters under the jurisdiction of Contracting Parties, if the Parties so agree, and to report the results reported to the regular meetings of REMPEC Focal Points	Appropriate action by the maritime administration	Nil
	b) Establishment, with <i>high priority</i> , of sub-regional systems, including procedures to over-fly the waters under the jurisdiction of a neighbouring State if the neighbouring Parties so agree, for surveillance of environmentally sensitive and/or high risk zones of the Mediterranean Sea	Appropriate action by the maritime administration	Nil
	c) Analysis, as far as practical, through direct correspondence with the Contracting Parties, of the reasons behind the poor record of compliance with this objective by many Contracting Parties	Staff time	Nil
	d) Continue organisation and participation in, funding and human resources permitting, any new activities on this issue where the Centre is requested to play a role, building on the experience gathered from the activities carried out on national monitoring and surveillance	Staff time and travel <sup>29</sup>	See footnote 8
	e) Facilitation of the organisation of regular coordinated or individual aerial surveillance operation for illicit ship pollution discharges	Staff time	Nil

<sup>29</sup>A travel budget for the Secretariat amounting to 15,000 euro per year for six years (2016-2021) has been estimated, as reflected at the end of the table.

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	f) The continuation of the CleanSeaNet services offered by EMSA available to all Contracting Parties to the Barcelona Convention that are not Member States of the EU, currently through the SAFEMED III Project, until 2021 and beyond, have been explored	Staff time	Nil
	g) Cooperation with other Regional Agreements and EMSA in carrying out the above requests	Staff time	Nil
<b>8. To improve the level of enforcement and the prosecution of discharge offenders.</b>	a) All Mediterranean coastal States have ensured, with <i>high priority</i> , the existence of a national legal framework (regulations) as a basis for prosecuting discharge offenders for infringements of the MARPOL Convention or of any national legal framework implementing it	Appropriate action by the maritime administration	Nil
	b) Active participation, with <i>high priority</i> , in the MENELAS in accordance with its terms of reference	Ditto.	Nil
	c) Continuous support provided to Contracting Parties, acting as the Secretariat of MENELAS and reports on its activities are submitted to the Contracting Parties at each of their Ordinary Meetings	Staff time	Nil
	d) Maintenance of the MENELAS information system	Staff time and IT maintenance	6,000 <sup>30</sup>
	e) Collaboration with UNEP/MAP Secretariat to further exploit possible synergies with the Regional Seas framework such as NSN, ENPRO and EMSA in the framework of MENELAS	Staff time and travel <sup>31</sup>	See footnote 10

<sup>30</sup>A website maintenance budget of 2,000 euro per biennium for six years (2016-2021) has been estimated.

<sup>31</sup>A travel budget for the Secretariat amounting to 15,000 euro per year for six years (2016-2021) has been estimated, as reflected at the end of the table.

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
<b>9. To reduce the pollution generated by pleasure craft activities.</b>	a) Implementation, with <i>high priority</i> , of the Guidelines concerning Pleasure Craft Activities and the Protection of the Marine Environment in the Mediterranean, in conjunction with the relevant provisions of the MARPOL Convention and the Regional Plan on Marine Litter Management	Appropriate action by the maritime administration	Nil
	b) Measures undertaken to implement the said Guidelines reported to the Secretariat	Ditto.	Nil
	c) Assistance provided to Mediterranean coastal States in the implementation of the Guidelines referred to in subparagraph a) above, taking into account the relevant provisions of the MARPOL Convention and the Regional Plan on Marine Litter Management	Staff time  Regional seminar plus external consultancy	Nil  75,000 <sup>32</sup>
	d) Recordkeeping of the reports sent by the Contracting Parties under sub-paragraph b) above and submission of periodical synthetic reports to the relevant meetings of the Contracting Parties	Staff time	Nil
<b>10. Reduced risk of collisions by establishing Ship's Routeing Systems.</b>	a) Additional appropriate routeing systems in the Mediterranean are proposed to IMO, where necessary, for possible adoption in accordance with international law	Appropriate action by the maritime administration	Nil
	b) Establishment of MSPs under national jurisdiction is considered, when and where possible, and without prejudice to the sovereign right of the States, in close collaboration with the relevant national competent authorities and in cooperation with other Mediterranean coastal States ensuring that their MSPs are coherent and coordinated across the Mediterranean region	Appropriate action by the maritime administration	Nil

<sup>32</sup> Estimated cost of a two-day seminar held in Malta, with two participants per country in attendance plus the help of an external expert consultant.

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	c) Assistance provided to Contracting Parties that so request, either individually or collectively, in the identification of possible sea areas where a routeing system might be deemed necessary and in the preparation of the relevant documentation to initiate the process at IMO	Staff time	Nil
	d) Support is provided, in close cooperation with other MAP components, to Contracting Parties which so require in their efforts toward the establishment of MSPs	Staff time and travel <sup>33</sup>	See footnote 12
<b>11. Improved control of maritime traffic.</b>	a) Areas of the Mediterranean where control of maritime traffic could be improved by the establishment of a regime based on the use of AIS in conjunction with VTS and mandatory ship reporting systems, are identified and the approval procedures is completed as soon as possible thereafter	Appropriate action by the maritime administration	Nil
	a) Improvement, on a continuous basis, of technical cooperation among VTS Centres of neighbouring countries and, according to the need, information is exchanged about ships by using AIS and other related systems in the common surveillance area	Ditto.	Nil
	b) The international financial assistance required to establish the regime referred to in subparagraph a) above, taking also into account, where appropriate, possible synergies with actions undertaken on the establishment of MSPs referred to under Specific Objective 10, is negotiated, with <i>high priority</i> , with appropriate organisations and agencies on behalf of the Contracting Parties which so request	Staff time	Nil

<sup>33</sup>A travel budget for the Secretariat amounting to 15,000 euro per year for six years (2016-2021) has been estimated, as reflected at the end of the table.

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
<b>12. Identification of Particularly Sensitive Sea Areas (PSSAs).</b>	a) Maritime areas within their jurisdiction which need the protection afforded by their designation as PSSAs are ascertained, with <i>medium priority</i> , and the support of REMPEC and RAC/SPA and, if so ascertained, the process of requesting IMO to enable such designation is initiated	Appropriate action by the maritime administration	Nil
	b) Initiation, on the request of Contracting Parties and in conjunction with RAC/SPA, of the process of identification of those areas which, after examination by the REMPEC Focal Points, could be proposed for designation as PSSAs taking also into account, where appropriate, possible synergies with actions undertaken on the establishment of MSPs referred to under Specific Objective 10	Staff time	Nil
	c) Assistance is provided, in cooperation with IMO, to the Mediterranean coastal States which so request, to conduct the necessary studies and to prepare the relevant submissions to IMO for the designation of PSSAs, if any, in strict compliance with the applicable IMO Guidelines	Staff time  External consultancy assistance	Nil  15,000
	d) Possibility of obtaining assistance for the above purposes under the IMO's ITCP explored	Staff time	Nil

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
<b>13. Reduction of marine noise caused by ships.</b>	a) Awareness raised, with <i>medium priority</i> , through the dissemination of the advice contained in the IMO Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life among their national designers and shipbuilders, as well as operators of ships flying their flag, urging them to implement noise mitigation strategies on board their ships	Appropriate action by the maritime administration	Nil
	b) Advice and assistance is provided to Mediterranean coastal States, which so request, in order to fulfil the objective under subparagraphs (a) above	Staff time	Nil
<b>14. To establish procedures for the designation of places of refuge in order to minimise the risks of widespread pollution.</b>	a) Identification, with <i>high priority</i> , at the national level, of appropriate procedures as outlined in the relevant IMO Guidelines and relevant EU guidelines supplemented by the associated Guidelines and Principles prepared by REMPEC, in order to facilitate the decision making when designating a place of refuge for ships in need of assistance	Appropriate action by the maritime administration	Nil
	b) All Mediterranean coastal States have drawn up plans to deal with ships in distress, including, appropriate equipment and means, as required, and have defined the modalities of the response according to its nature and to the risk incurred	Appropriate action by the maritime administration	Nil
	c) Continuous assistance provided to countries, which so request, to define procedures and draw up plans as specified in sub-objectives a) and b) above, and to raise funds, <i>inter alia</i> , from the IMO's ITCP	Staff time  External consultancy assistance	Nil  15,000

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
<p><b>15. To examine the possibility of designating the Mediterranean Sea or parts thereof as a SOx emission control area under MARPOL Annex VI and effectively implement the existing energy efficiency measures.</b></p>	<p>a) Establish a technical committee of experts nominated by the Contracting Parties, which works through correspondence, which will carry out a technical and feasibility study to examine if it is appropriate, at the current stage, to put in place a roadmap for preparation of a submission to the International Maritime Organisation to designate as a SOx ECA in certain areas of the Mediterranean Sea requiring specific environmental protection, and to explore possible further steps;</p>	<p>Appropriate action by the maritime administration and the Secretariat</p>	<p>Nil</p>
	<p>b) Once a decision is made and having ratified MARPOL Annex VI, a proposal to designate as a SOx ECA the area or areas of the Mediterranean Sea identified under sub-paragraph a) above is submitted to IMO, with <i>medium priority</i></p>	<p>Ditto.</p>	<p>Nil</p>
	<p>c) Participation in relevant debates at the IMO on possible future further measures for enhancing the energy efficiency of international shipping, in particular, the development of a data collection system for fuel consumption of ships, <i>inter alia</i> by informing the Secretariat of the existence of data collection and reporting systems for fuel consumption of ships</p>	<p>Ditto.</p>	<p>Nil</p>
	<p>d) Preparation, with <i>high priority</i>, of a study based on the input of Contracting Parties, aimed at assessing the feasibility of the alternatives referred to in sub-paragraph a) above</p>	<p>Staff time External consultancy assistance</p>	<p>Nil 15,000</p>

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	e) Assistance provided to the Mediterranean coastal States which so request, either individually or collectively, to prepare a submission to IMO proposing the designation as a SOx ECA of the area or areas of the Mediterranean Sea identified under sub-paragraph a) above	Staff time  Regional seminar	Nil  60,000 <sup>34</sup>
	f) Relevant information provided to Contracting Parties, which so request, on possible future further measures for enhancing the energy efficiency of international shipping	Staff time	Nil
	g) Assessment of existing data collection and reporting systems for fuel consumption of ships in the Mediterranean region and pilot studies on voluntary "Data Collection and Reporting" carried out	Staff time	Nil
	h) Possibility of obtaining assistance for the above purposes under the IMO's ITCP explored	Staff time	Nil
<b>16. To ensure that adequate emergency towing capacity is available throughout the Mediterranean to assist vessels, including tankers, in distress.</b>	a) Agreements with neighbouring coastal States considered, with <i>high priority</i> , if appropriate action has not been already taken, to enable them to share emergency towing equipment and arrangements to assist ships in distress in the Mediterranean, using as appropriate the Mediterranean guidelines on emergency towing	Staff time	Nil
	b) Assistance provided to Contracting Parties that so request in preparing and implementing the agreements referred to in sub-paragraph a) above	Staff time	Nil
SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED

<sup>34</sup> Estimated cost of a two-day seminar held in Malta, with two participants per country in attendance.



			<b>ADDITIONAL COST (EURO)</b>
	c) Assessment of the capability of the Mediterranean coastal States in terms of emergency towing equipment, and support provided to those Contracting Parties, which so request	Staff time	Nil
<b>17. To enhance the levels of pre-positioned spill response equipment under the direct control of Mediterranean coastal States.</b>	a) Information concerning national practices for financing the acquisition of spill response equipment, shared or exchanged, with <i>high priority</i> , with a view to assist Mediterranean Coastal States in determining all feasible methods to finance spill response equipment	Appropriate action by the maritime administration	Nil
	b) Establishment, with <i>medium priority</i> , of national stockpiles of State controlled and private pre-positioned oil and HNS spill response equipment and the related inventory at national level and regional level is kept updated through REMPEC	Ditto	Nil
	c) Assistance provided to the States which so request in identifying the minimum required level of pre-positioned State-controlled spill response equipment	Staff time and external consultancy	210,000 <sup>35</sup>
	d) Dissemination to the Contracting Parties of information concerning the applicable ways of financing the acquisition of such equipment and continuous assistance provided in this regard, as necessary	Staff time	Nil
	e) Maintenance of the RIS and updated inventory of pre-positioned spill response equipment	IT maintenance	6,000 <sup>36</sup>

<sup>35</sup> A technical support budget amounting to 10,000 euro per country has been estimated.

<sup>36</sup> An IT maintenance budget of 2,000 euro per biennium for six years (2016-2021) has been estimated.

<b>SPECIFIC OBJECTIVE</b>	<b>OUTPUT</b>	<b>MEANS REQUIRED</b>	<b>INDICATIVE ESTIMATED ADDITIONAL COST (EURO)</b>
	f) Possible synergies to interconnect the Regional Information System (RIS) with CECIS to facilitate the access to the information at any time and in particular in case of emergency, and facilitate the update of these databases through an interconnected system, is envisaged	Staff time	Nil
<b>18. To encourage the participation of the regional scientific and technical institutions in research and development activities and to facilitate transfer of technology.</b>	a) Scientific and technical institutions, as well as the industry, actively participate in R&D activities and programmes related to accidental marine pollution prevention, preparedness and response	Appropriate action by the maritime administration	Nil
	b) National institutions and industry presents the results of their R&D activities and programmes at international fora	Ditto.	Nil
	c) National R&D activities are presented using the page created by REMPEC within the Country Profiles website	Ditto.	Nil
	d) Continuous assistance provided to regional institutions and industry in identifying fields of research in which there is a need for enhancement of the state-of-the-art of spill preparedness and response technologies and techniques	Staff time	Nil
	e) Continuous assistance provided in the dissemination and exchange of results of national R&D activities and programmes within and outside the Mediterranean region	Staff time	Nil

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	f) Participation of national and regional research institutions and industry in the relevant international fora is facilitated with a view to making better known the results of R&D activities undertaken in the Mediterranean region	Staff time and travel <sup>37</sup>	See footnote 16
	g) Cooperation with other Regional Agreements, in carrying out the above requests.	Staff time	Nil
19. To improve the quality, speed and effectiveness of decision-making process in case of marine pollution incidents through the development and introduction of technical and decision support tools.	a) The development and improvement of specific regional decision support tools are stimulated by promoting active participation of national scientific institutions and programmes, and through providing REMPEC with relevant data-sets and other information that might be available in the respective countries	Appropriate action by the maritime administration	Nil
	b) Active participation, through a country lead approach in the implementation of the programme of work of the MTWG as defined by the Meetings of Focal Points of REMPEC	Ditto.	Nil
	c) National oceanographic institutes have joined the MONGOOS and contributed to the maintenance of the above Mediterranean tools through regular data update	Ditto.	Nil
	d) Contribution to the development of a quality assurance programme for data reporting and collection in line with the EcAp Monitoring Programme	Ditto.	Nil

<sup>37</sup>A travel budget for the Secretariat to implement the Regional Strategy amounting to 15,000 euro per year for six years (2016-2021) has been estimated, as reflected at the end of the table.

<b>SPECIFIC OBJECTIVE</b>	<b>OUTPUT</b>	<b>MEANS REQUIRED</b>	<b>INDICATIVE ESTIMATED ADDITIONAL COST (EURO)</b>
	e) Continuous revision and upgrade of the existing IT based decision support tools, and development of new IT based decision support tools available to the competent national authorities of the Contracting Parties , taking into account national or regional initiatives in this field	Staff time  Regional seminar plus external consultancy  IT development	Nil  75,000 <sup>38</sup>  150,000 <sup>39</sup>
	f) Coordination and the implementation of the programme of work of the MTWG facilitated	Staff time	
	g) Possible interaction and capitalisation of decision support tools available at Mediterranean and European levels, including those developed by other Regional Agreements or under other regional initiatives explored, in carrying out the above requests	Staff time	Nil
	h) Support provided for the development of a quality assurance programme for data reporting and collection in line with the EcAp Monitoring Programme	Staff time in connection with activity e) above	Nil
	i) Integration of any developments on decision support tools under Specific Objectives 20, 21 and 22	Staff time	Nil

<sup>38</sup> Estimated cost of a two-day seminar held in Malta, with two participants per country in attendance plus the help of an external expert consultant.

<sup>39</sup> Estimated cost of IT developments

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
<p><b>20. To increase as much as practical, the level of knowledge in the field of preparedness and response to accidental marine pollution by oil and other harmful substances.</b></p>	<p>a) Establishment, with <i>high priority</i>, if appropriate action has not been already taken, of national training programmes for response to incidents involving oil and other HNS, based inter alia on IMO Model training courses Levels 1 and 2, for training national operating level and supervisory personnel respectively, with a view to ensuring a continuous education of such personnel</p>	<p>Appropriate action by the maritime administration, including training</p>	<p>Nil</p>
	<p>b) Dissemination of the knowledge acquired through train the trainer courses and replication of the training courses at local and national level</p>	<p>Ditto.</p>	<p>Nil</p>
	<p>c) Regular exercises carried out to test national response capacity in cooperation with all relevant stakeholders and to the possible extent involving neighbour coastal states to enhance bilateral and sub-regional cooperation</p>	<p>Appropriate action by the maritime administration</p>	<p>Cost of regular exercises<sup>40</sup></p>
	<p>d) Assistance provided to Contracting Parties which so request in the development and implementation of their national training programme</p>	<p>Staff time</p>	<p>Nil</p>
	<p>e) Continuous delivery of "Training of Trainers" courses, based in particular on the work developed under POSOW Projects</p>	<p>Two regional training courses plus external consultancy support</p>	<p>150,000<sup>41</sup></p>
	<p>f) Regional training courses on specific, highly specialised issues, identified at regular basis</p>	<p>Three regional training courses</p>	<p>180,000<sup>42</sup></p>

<sup>40</sup> The cost of regular exercises to test response capacity could not be quantified, as they involve several State departments and administrations.

<sup>41</sup> Estimated cost of two two-day training courses held in Malta, with two participants per country in attendance plus the help of an external expert consultant.

<sup>42</sup> Estimated cost of three two-day Regional training held in Malta, with two participants per country in attendance

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	g) The relevant model training courses updated by the IMO Sub-Committee on Pollution Prevention and Response (PPR); other Regional Agreements, and EMSA under its relevant Action Plans are taken into account, when preparing and supporting the implementation of national training programmes	Staff time	Nil
	h) Promotion of the organisation of regular exercises to test national and sub-regional response capacity in cooperation with all relevant stakeholders	Staff time and travel <sup>43</sup>	See footnote 22
	i) The possibility of obtaining assistance for the above purposes under the IMO's ITCP is explored and external resources and means inter alia from external donors, the private sector and the UCPM are mobilised	Staff time	Nil
<p><b>21. To revise the existing recommendations, principles and guidelines, and to develop new ones aimed at facilitating international cooperation and mutual assistance within the framework of the 2002 Prevention and Emergency Protocol.</b></p>	<p>a) Revision, with <i>high priority</i> if appropriate action has not been already taken, of the existing recommendations, principles and guidelines concerning accidental marine pollution preparedness, response and mutual assistance, as well as prevention of pollution from ships, that were adopted since 1987, paying particular attention to those that aim at removing possible obstacles which might hinder mutual assistance</p>	<p>Appropriate action by the maritime administration and the Secretariat</p>	<p>Nil</p>

<sup>43</sup>A travel budget for the Secretariat to implement the Regional Strategy amounting to 15,000 euro per year for six years (2016-2021) has been estimated, as reflected at the end of the table

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	b) Identification, with <i>high priority</i> , if appropriate action has not been already taken, of all such recommendations, principles and guidelines that need to be revised, updated and/or amended	Ditto.	Nil
	c) Indication, with <i>high priority</i> , if appropriate action has not been already taken, of additional recommendations, principles and guidelines which should be adopted at the regional level with a view to facilitating the implementation of the 2002 Prevention and Emergency Protocol in the field of international cooperation and mutual assistance	Ditto.	Nil
	d) Indication, with <i>high priority</i> , if appropriate action has not been already taken, of additional recommendations, principles and guidelines which should be adopted at the regional level with a view to facilitating the implementation of the 2002 Prevention and Emergency Protocol in the field of international cooperation and mutual assistance	Ditto.	Nil
	e) The use of the CECIS Marine Pollution is considered in order to enhance coordination of requests and offers of international assistance	Staff time External resources	Nil

SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	f) Compilation, as soon as the necessary information is in hand, of an inventory of the applicable national procedures governing the entry into, movement within and exit from their territory of specialised personnel and equipment that might be provided as mutual assistance in case of emergency, and preparation of recommendations for improving those national procedures that could seriously hamper providing such assistance	Staff time  External consultancy assistance, to cover activities e), f), g) in two separate but related missions	Nil  30,000
	g) Preparation, with <i>high priority</i> , in cooperation with REMPEC national Focal Points revised, updated and/or amended texts of the relevant regional recommendations, principles and guidelines to be propose for adoption to the Meetings of the Contracting Parties	Ditto.	See above
	h) Development, as the need arises and in cooperation with REMPEC national Focal Points, new recommendations, principles and guidelines, as necessary, and to be propose for adoption to the Meetings of the Contracting Parties	Ditto.	See above
	i) In carrying out the above requests, cooperation with IMO, other Regional Agreements, EMSA under its relevant Action Plans and the Union Civil Protection Mechanism, taking into account any new developments on international cooperation and mutual assistance	Staff time	Nil



SPECIFIC OBJECTIVE	OUTPUT	MEANS REQUIRED	INDICATIVE ESTIMATED ADDITIONAL COST (EURO)
	j) Possibility of obtaining assistance for the above purposes under the IMO's ITCP is explored and external resources and means inter alia from external donors, the private sector and the UCPM are mobilised	Staff time	Nil
22. To strengthen the capacity of individual coastal States to respond efficiently to marine pollution incidents through development of sub-regional operational agreements and contingency plans.	a) Assessment, preparation, or revision and adoption, with <i>high priority</i> if appropriate action has not been already taken, of national contingency plans and establishment of national systems for preparedness for and response to oil and HNS spills from ships, sea ports and oil handling facilities, with a view to creating the necessary conditions for the development of sub-regional agreements	Appropriate action by the maritime administration and the Secretariat	Nil
	b) Sub-regional agreements covering the entire Mediterranean region negotiated, concluded and implemented including the relevant sub-regional contingency plans	Ditto.	Nil
	c) Continuous assistance provided to the Contracting Parties that have not yet adopted their national contingency plans or need to review their national contingency plans to integrate HNS and/or offshore components, in the development or update and implementation of national preparedness and response systems	Staff time	Nil

<b>SPECIFIC OBJECTIVE</b>	<b>OUTPUT</b>	<b>MEANS REQUIRED</b>	<b>INDICATIVE ESTIMATED ADDITIONAL COST (EURO)</b>
	d) Assessment of national contingency plans and national response systems, facilitated through self-assessment or peer reviews to commensurate national response capacities with the existing oil and HNS spill risks from ships, sea ports and oil handling facilities and to evaluate gaps between national plans in order to define appropriate actions to ensure the compatibility of operational arrangements in view of the conclusion of bilateral and/or sub-regional agreements <sup>44</sup>	Staff time and travel <sup>43</sup>	See footnote 23
	e) Continuous assistance provided to Contracting Parties, which so request, in preparing or reviewing sub-regional contingency plans and in drafting agreements on their implementation	Ditto.	Ditto.
	f) Advice and material which may be made available by other Regional Agreements utilised in carrying out the above requests	Staff time	Nil
	g) The possibility of obtaining assistance for the above purposes under the IMO's ITCP is explored and external resources and means inter alia from external donors, the private sector and the UCPM are mobilised	Staff time	Nil

<sup>44</sup> The reference to southern eastern Mediterranean contingency plans is agreeable for Turkey only on the condition that there exists no reference to maritime jurisdiction areas and sovereignty issues in the respective contingency plan

<b>SUMMARY OF INDICATIVE COSTS OF IMPLEMENTATION OF THE REGIONAL STRATEGY 2016-2021, ADDITIONAL TO THE COST OF ENGAGING ONE DEDICATED OFFICER FOR EACH ADMINISTRATION</b>		
<b>Travel budget for the Secretariat 2016-2021</b>	Travel required, <i>inter alia</i> , under activities 3 d) to f); 4 c) to e); 7 d); 8 e); 10 d); 18 f); 20 h) and 22 d) and e)	90,000
<b>External consultancy support</b>	Approximate cost of external consultants engaged under activities 3 d) to g); 5 h) and i); 6 c); 9 c); 12 c); 14 c); 15 d); 17 c) and e); 19 e); 20 e) and 21 e) to g)	600,000
<b>Seminars and training activities</b>	Approximate cost of holding regional seminars and training under activities 3 a) to c); 5 h); 9 c); 15 e); 19 e); and 20 a) and b) and e) to f), including external support where appropriate	675,000
<b>IT Maintenance</b>	Approximate cost for IT development and maintenance under activities 8 d) and 19 e)	162,000
<b>TOTAL</b>		<b>1,527,000</b>