



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

Regional Workshop on Ratification and Effective Implementation
of MARPOL Annex VI

REMPEC/WG.44/INF.3/Rev.1
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Agenda Item 8

TERMS OF REFERENCE
FOR THE PROVISION OF CONSULTANCY SERVICES FOR THE PREPARATION OF A
TECHNICAL AND FEASIBILITY STUDY TO EXAMINE THE POSSIBILITY OF DESIGNATING THE
MEDITERRANEAN SEA, OR PARTS THEREOF, AS SO_x ECA(S) UNDER MARPOL ANNEX VI

Note by the Secretariat

SUMMARY

Executive Summary: This document presents the Terms of Reference for the provision of consultancy services for the preparation of a technical and feasibility study to examine the possibility of designating the Mediterranean Sea, or parts thereof, as SO_x ECA(s) under MARPOL Annex VI, as reviewed and agreed upon by the SO_x ECA(s) Technical Committee of Experts established pursuant to Specific Objective 15 of the Regional Strategy (2016-2021).

Action to be taken: Paragraph 3

Related documents: REMPEC/WG.44/8/Rev.1

Background

1 As presented in document REMPEC/WG.44/8/Rev.1, the sulphur oxides (SO_x) emission control area(s) (ECA(s)) Technical Committee of Experts established pursuant to Specific Objective 15 of 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 adopted by 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, reviewed and agreed upon the Terms of Reference (ToRs) for the provision of consultancy services for the preparation of a technical and feasibility study to examine the possibility of designating the Mediterranean Sea, or parts thereof, as SO_x ECA(s) under Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL).

2 The ToRs are presented in the **Appendix** 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.

APPENDIX

**Terms of Reference
for the provision of consultancy services
for the preparation of a technical and feasibility study to examine the possibility of designating
the Mediterranean Sea, or parts thereof, as SOx ECA(s) under MARPOL Annex VI**

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

**TERMS OF REFERENCE
FOR THE PROVISION OF CONSULTANCY SERVICES FOR THE
PREPARATION OF A TECHNICAL AND FEASIBILITY STUDY TO EXAMINE THE
POSSIBILITY OF DESIGNATING THE MEDITERRANEAN SEA OR PARTS THEREOF AS
SO_x EMISSION CONTROL AREA UNDER MARPOL ANNEX VI**

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 (COP 19), which was held in Athens, Greece from 9 to 12 February 2016, adopted Decision IG.22/4 related to the Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021), hereinafter referred to as the Regional Strategy (2016-2021) (UNEP(DEPI)/MED IG.22/28).

2 The Regional Strategy (2016-2021) addresses the issue of the prevention of air pollution from ships in Specific Objectives 1 and 15, the details of which may be found in the **Annex** to the present document.

3 Through REMPEC Circular Letters No. 08/2016 and 09/2016, dated 15 March 2016 and 15 April 2016, respectively, the Centre invited all REMPEC Governmental Focal Points to nominate jointly and, in consultation with REMPEC Prevention Focal Points, their representatives serving on the SO_x ECA(s) Technical Committee of Experts established under Specific Objective 15 of the Regional Strategy (2016-2021). To date, REMPEC has received nominations from nineteen (19) out of the twenty-two (22) Contracting Parties to the Barcelona Convention.

4 The Twentieth Ordinary Meeting of the Contracting Parties to the Barcelona Convention and its Protocols (COP 20), which was convened in Tirana, Albania from 17 to 20 December 2017, agreed to include the following activity in the Programme of Work and Budget for 2018-2019 of the Mediterranean Action Plan (MAP) of the United Nations Environment Programme (UN Environment), also referred to as UN Environment/MAP:

- Examine the possibility of designating the Mediterranean Sea or parts thereof as SO_x Emission Control Area(s) (SO_x ECA(s)) under MARPOL Annex VI and effectively implement the existing energy efficiency measures.

5 The expected deliverables are: roadmap put in place for the preparation of a submission to the IMO to designate as a SO_x ECA in certain areas of the Mediterranean Sea requiring specific environmental protection as well as possible further steps explored.

6 In this context, the main objective of the technical and feasibility study to examine the possibility of designating the Mediterranean Sea or parts thereof as SOx ECA(s) under MARPOL Annex VI¹, hereinafter referred to as the Technical and Feasibility Study, which is financed by the Mediterranean Trust Fund (MTF), is to examine if it is appropriate, at the current stage, to put in place a road map for preparation of a submission to the IMO to designate as a SOx ECA in certain areas of the Mediterranean Sea requiring specific environmental protection and to explore possible alternatives or further steps. In doing so, the Technical and Feasibility Study will also enable REMPEC to assist 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.

7 The Technical and Feasibility Study together with recommendations on the possible designation of the Mediterranean Sea or parts thereof as SOx ECA(s) under MARPOL Annex VI, including a draft road map as well as an initial draft submission to the IMO for such a designation, if any, to be prepared by the Consultant, will be reviewed and validated by the SOx ECA(s) Technical Committee of Experts before submission to the Thirteenth Meeting of the Focal Points of REMPEC, to be tentatively held in Malta in 2019, for its review and recommendations.

8 During the consultancy, the following should be considered:

- .1 MARPOL Annex VI, especially Regulation 13 (Nitrogen oxides (NOx)), Regulation 14 (Sulphur oxides (SOx) and particulate matter) thereof as well as Appendix III (Criteria and procedures for designation of emission control areas) and Appendix VII (Emission control areas) thereto;
- .2 the Regional Strategy (2016-2021), especially Specific Objectives 1 and 15 thereof;
- .3 relevant documents related to applications for the designation of ECAs submitted to the IMO's Marine Environment Protection Committee (MEPC) before 2008, namely:
 - Baltic Sea area (SOx ECA): MEPC 37/13/7, MEPC 37 (report), MEPC 39/6, MEPC 39/6/2, MEPC 39/6/24 and MEPC 39 (report); and
 - North Sea area (SOx ECA): MEPC 39 (report), MEPC 39/INF.6, MEPC 41/20, MEPC 43/21, MEPC 44/11/4, MEPC 44/11/4/Corr.1, MEPC 44/20, MEPC 52/24, MEPC 52/24/Add.1, MEPC 53/5/1, MEPC 53/24 and MEPC 53/24/Add.2.
- .4 relevant documents related to applications for the designation of ECAs submitted to the IMO's MEPC after 2008, namely:
 - North American area (SOx, particulate matter (PM) and NOx ECA): MEPC 59/6/5, MEPC 59/6/5/Corr.1, MEPC 59/24 and MEPC 59/INF.13;

¹ The original MARPOL Annex VI entered into force on 19 May 2005. The revised MARPOL Annex VI adopted by resolution MEPC. 176(58) entered into force on 1 July 2010. The amendments thereto, adopted by resolutions MEPC.190(60), MEPC.194(61), MEPC.202(62), MEPC.203(62), MEPC.217(63), MEPC.247(66), MEPC.251(66), MEPC.258(67) and MEPC.271(69), entered into force. Additionally, further amendments thereto, adopted by resolutions MEPC.278(70) as well as MEPC.286(71) are expected to enter into force on 1 March 2018 and 1 January 2019 respectively.

- United States Caribbean Sea area (SOx, PM and NOx ECA): MEPC 61/7/3, MEPC 61/24, MEPC 61/INF.9, MEPC 62/24, MEPC 62/24/Corr.1 and MEPC 62/24/Corr.4;
 - Baltic Sea area (NOx ECA): MEPC 70/5/1, MEPC 70/18, MEPC 70/18/Add.1, MEPC 70/18/Add.1/Corr.1, MEPC 70/18/Add.1/Corr.2, MEPC 70/INF.3, MEPC 71/17 and MEPC 71/17/Add.1; and
 - North Sea area (NOx ECA): MEPC 70/5/Rev.1, MEPC 70/18, MEPC 70/18/Add.1, MEPC 70/18/Add.1/Corr.1, MEPC 70/18/Add.1/Corr.2, MEPC 71/17 and MEPC 71/17/Add.1.
- .5 the report entitled “*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 SECA*”, which was prepared in the framework of the European Union (EU)-funded MEDA Regional Project “*Euromed Cooperation on Maritime Safety and Prevention of Pollution from Ships – SAFEMED*” (MED 2005/109-573) implemented by REMPEC between 2006 and 2009;
- .6 Third IMO Greenhouse Gas Study 2014;
- .7 the executive summary and the complete final report of the "Assessment of fuel oil availability", as laid down in document MEPC 70/5/3 and MEPC 70/INF.6 respectively, as well as MEPC 70/18, MEPC 70/18/Add.1 and relevant submissions to MEPC 70 that provided the basis to support the agreement on the date of 1 January 2020 as the effective date of implementation for ships to comply with the 0.50% m/m sulphur content of fuel oil requirement, as set out in regulation 14.1.3 of MARPOL Annex VI²;
- .8 relevant EU legislation³, especially Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels as well as Commission Implementing Decision (EU) 2015/253 of 16 February 2015 laying down the rules concerning the sampling and reporting under Council Directive 1999/32/EC as regards the sulphur content of marine fuels; and
- .9 any other relevant information that may be provided by REMPEC as well as the Contracting Parties to the Barcelona Convention, through the SOx ECA(s) Technical Committee of Experts, especially with regard to relevant projects or initiatives carried out at the national, sub-regional or regional level.

² MEPC 70 agreed on the date of 1 January 2020 as the effective date of implementation for ships to comply with the 0.50% m/m sulphur content of fuel oil requirement, as reflected in resolution MEPC.280(70) adopted on 28 October 2016. Therefore, the primary assumption for the Technical and Feasibility Study is that this agreement stands.

³ The submission for an ECA designation to the IMO by EU coastal States is subject to EU coordination process and would require an EU submission to the IMO.

Assignment

9 For the completion of this consultancy, the budget of which shall not exceed forty-five thousand (45,000) Euros in total, the Consultant shall:

- .1 attend a kick-off Meeting to be held through video-conference, **preferably between 28 May 2018 and 1 June 2018**, to discuss the content of the reference documents to be analysed, the scope of the assignment, as well as to collect all required information for the completion of this consultancy and to agree on the method of work and communication channel;
- .2 draft a brief kick-off Meeting report to be submitted to REMPEC reflecting the main outcomes of the meeting;
- .3 prepare, in consultation with REMPEC, a draft Technical and Feasibility Study, together with draft recommendations on the possible designation of the Mediterranean Sea or parts thereof as SO_x ECA(s) under MARPOL Annex VI, including a draft road map as well as an initial draft submission to the IMO for such a designation, if any, according to the criteria and procedures for designation of emission control areas laid down in Appendix III to MARPOL Annex VI. In particular, based on the geopolitical stands arising from the response to a questionnaire that REMPEC will have sent to the Contracting Parties to the Barcelona Convention, the Consultant shall address, as far as practicable, all criteria for designation of an emission control area, as laid down in Appendix III to MARPOL Annex VI, and shall:
 - assess the implications of the revision of MARPOL Annex VI in 2008 and of the entry into force of amendments thereto adopted since then on the information and proposed way forward set out in the report entitled "*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 SECA*";
 - provide a baseline and projections for air emissions from ships in the Mediterranean Sea area for the period 2020-2050, using available emission inventories or emission models based on real ship movements that may be made available by the Centre or the SO_x ECA(s) Technical Committee of Experts⁴, as appropriate;
 - consider various scenarios and assess the feasibility, economic viability, the health and environmental benefits as well as the potential of designating the whole of the Mediterranean Sea as a SO_x ECA or of designating only certain specific areas within the Mediterranean Sea as SO_x ECAs;
 - identify which air emission reduction measures could be implemented in addition to or, as an alternative to, the designation of the Mediterranean Sea or parts thereof as SO_x ECA(s) under MARPOL Annex VI, and assess their feasibility and practicability as well as relevant implications.

⁴ The Centre will endeavour to ensure that at least one of these data resources be made available for the Technical and Feasibility Study. A member of the SO_x ECA(s) Technical Committee of Experts indicated that it will be able to provide the output data of its emission model based on real ship movements in June 2018 so that it may be used by the Consultant through the Centre. Therefore, the Consultant is expected to make use of existing data sets or models that are being made available by the Centre or the SO_x ECA(s) Technical Committee of Experts rather than producing new data sets or running heavy models.

The draft Technical and Feasibility Study should at least include the following sections: 1. on the possible establishment of SO_x ECA(s) in the Mediterranean Sea; 2. on the practicability, costs and benefits of the reduction of air emissions from ships in the Mediterranean Sea area; 3. on forecasts of air emission scenario for the year 2020, 2030 and 2050; 4. on additional or alternative reduction measures to address air emissions in the Mediterranean Sea area, including an assessment of the emission reduction potential and costs for the sector for shortlisted measures; and 5. state of the art comparative analysis with similar cost-benefit analyses, methodologies and projections carried at regional (e.g. the North Sea area and the Baltic Sea area), EU and global level (e.g. international shipping emissions projections calculated by the IMO and related underlying assumptions (economic growth, energy intensities, etc.), cost benefit analysis for the 2020 entering into force of the 0.50% global sulphur cap).

The draft road map should address, amongst others, the gaps in terms of available information, required further studies or any other additional requirements to fulfil the criteria and procedures for designation of emission control areas laid down in Appendix III to MARPOL Annex VI, which may be identified when drafting the initial submission to the IMO.

The Contracting Parties to the Barcelona Convention will be requested by REMPEC, through the SO_x ECA(s) Technical Committee of Experts, to review and validate the said draft Technical and Feasibility Study as well as draft recommendations, including a draft road map as well as an initial draft submission to the IMO;

- .4 attend the last day of a three-day Regional Workshop on Ratification and Effective Implementation of MARPOL Annex VI to be tentatively held in France from **13 to 15 November 2018** and present, in consultation with REMPEC, a revised draft Technical and Feasibility Study as well as the above-mentioned draft recommendations, including a draft road map as well as an initial draft submission to the IMO, taking into consideration the comments made by the Contracting Parties to the Barcelona Convention, through the SO_x ECA(s) Technical Committee of Experts;
- .5 draft a brief report for the last day of the Regional Workshop on Ratification and Effective Implementation of MARPOL Annex VI to be submitted to REMPEC reflecting the main outcomes of the meeting; and
- .6 prepare, in consultation with REMPEC, the final draft Technical and Feasibility Study as well as revised draft recommendations, including a revised draft road map as well as an initial revised draft submission to the IMO, taking into consideration the comments made by the Contracting Parties to the Barcelona Convention during the Regional Workshop on Ratification and Effective Implementation of MARPOL Annex VI as well as through the SO_x ECA(s) Technical Committee of Experts.

Geographical scope of the assignment

10 The Consultant will primarily perform the assignment in his office/home as well as tentatively in France when attending the meeting referred above.

Travel arrangements

11 The Consultant, in close liaison with REMPEC, shall be responsible for the organisation of his/her missions including obtaining any necessary entry visa. As regards security, the Consultant, through his contract, falls under the United Nations security umbrella and therefore must follow all security requirements while travelling. Prior to departing on mission, the Consultant shall provide REMPEC with his/her travel arrangements (including itinerary and hotel accommodation) and shall obtain security clearance to travel from REMPEC. In this regard, in order for REMPEC to provide the necessary security clearance, the Consultant shall be requested to successfully complete the required United Nations Department of Safety and Security (UNDSS) 'Basic Security in the Field II' and the 'Advanced Security in the Field' on-line training courses. Other UNDSS security requirements in place at the time for the country to be visited must also be complied with. Further details, including on the above-mentioned on-line security courses, can be obtained from the UNDSS website: <https://dss.un.org/dssweb/>. Failing to follow these security requirements will jeopardise the Consultant's insurance cover offered by IMO.

Reporting

12 The Consultant shall:

- .1 prepare and submit to REMPEC, not later than **8 June 2018**, the draft kick-off Meeting report;
- .2 prepare and submit to REMPEC, not later than **14 September 2018**, the draft Technical and Feasibility Study;
- .3 prepare and submit to REMPEC, not later than **23 November 2018**, the draft report for the Regional Workshop on Ratification and Effective Implementation of MARPOL Annex VI;
- .4 prepare and submit to REMPEC, not later than **18 January 2019**, the revised draft Technical and Feasibility Study together with the draft recommendations, including a draft road map as well as an initial draft submission to the IMO, taking into consideration the comments made by the Contracting Parties to the Barcelona Convention, through the SOx ECA(s) Technical Committee of Experts as well as during the Regional Workshop on Ratification and Effective Implementation of MARPOL Annex VI; and
- .5 prepare and submit to REMPEC, not later than **12 April 2019**, the final draft Technical and Feasibility Study together with the revised draft recommendations, including the revised draft road map as well as the initial revised draft submission to the IMO, taking into consideration the comments made by the Contracting Parties to the Barcelona Convention, through the SOx ECA(s) Technical Committee of Experts.

13 All documents produced by the Consultant shall be prepared using the document template(s) to be provided by REMPEC and shall be drafted in English as well as provided in electronic format using software compatible with Microsoft Word 2003.

14 The reports shall mention that “*This activity has been financed by the Mediterranean Trust Fund (MTF) as well as the Integrated Technical Cooperation Programme (ITCP) of the International Maritime Organization (IMO) and has been implemented by the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)*”.

Schedule

15 The work and tasks (including preparation and delivery of the missions and submission of the reports), envisaged under the contract, shall be completed by **19 April 2019**. The contract will be terminated upon the submission by the Consultant of the final draft Technical and Feasibility Study together with the revised draft recommendations, including the revised draft road map as well as the initial revised draft submission to the IMO, and certification by REMPEC that the performance of the duties and the work carried out are satisfactory.

16 Within that timeframe, the Consultant will organise his work in the best possible manner and ensure the successful completion of the missions and consultancy.

ANNEX

**Specific Objectives 1 and 15 of the Regional Strategy
for Prevention of and Response to Marine Pollution from Ships
(2016-2021)**

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

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 Matter⁵.

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 Mediterranean Strategy 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 ITCP.

⁵ 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.

4.15 To examine the possibility of designating the Mediterranean Sea or parts thereof as SOx 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 2011⁶, regulates the prevention of air pollution from ships in general and, in particular, establishes more stringent limits for emissions of sulphur oxides (SOx), nitrogen oxides (NOx) and particulate matter from ship engine exhausts, and introduces a new chapter 4 with regulations on energy efficiency for ships. With respect to SOx, 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 SOx Emission Control Areas (SOx 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 SOx 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 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 SOx ECAs, drawing from the study already undertaken under the SafeMed I Project on the “Designation of the Mediterranean Sea as a SOx 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 SOx 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.

⁶ Resolution MEPC.203(62).

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_x 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_x 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_x ECA the area or areas of the Mediterranean Sea identified under subparagraph 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 SOx 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.