



## Pilot Project 1

### "Uptake of Ship Energy Efficient Technologies and Operations"

#### 1. Description of each participating country:

<b>MARPOL Annex VI Contracting State</b>
<b>Panama</b>

#### 1.1 Classification/Description of actors/involved in the public sphere (Key Industry Players):

**1.1.1 Panama Maritime Authority (AMP):** It is the supreme authority of the maritime sector in the Republic of Panama and direct link with the International Maritime Organization (IMO). It was created by Decree Law No. 7 of 10 December 1998, which unifies the various Maritime Competences of the Public Administration in the Republic of Panama.

- **Directorate-General for Merchant Marine (DGMM):** this department has been working on the discussion, analysis and adoption of the measures that have been discussed and implemented for several years in the IMO, through the incorporation into the legislation regulations and technical and operational measures, which have been established to reduce emissions from the maritime sector and contribute to the objectives of adapting and mitigating the effects of climate change at the global level.<sup>1</sup>
- **Directorate-General for Ports and Auxiliary Maritime Industries (DGPIMA):** Collaborates directly with the Directorate-General for Merchant Marine, in the implementation of Annex VI to the MARPOL Convention and its rules to prevent air pollution caused by ships, by means of the 1997 Protocol, which amended the MARPOL Convention of 1973 and, entered into force internationally on 19 May 2005.

According to data provided by the PMA, the Republic of Panama has a total of twenty-six (26) state ports at the national level, which are under the administration of the Panama Maritime Authority, through the DGPIMA. This work is carried out directly by the Port Operations Department, which

<sup>1</sup> <https://amp.gob.pa/noticias/autoridad-maritima-de-panama-frente-al-cambio-climatico/>

oversees and coordinates the work of the Port Captainies and the respective Minor Port Administrations.<sup>2</sup>

**1.12 National Aeronaval Service (SENAN):** An institution that is part of the organization chart of the Public Force and that is a public security entity in the maritime, air, port and airport areas throughout the national territory. Among its functions is "oversees for the safety of airspace, lake, sea and river space, as well as port and airport facilities; protect persons and their property in the waters and airspace under national jurisdiction, in the island territory, at ports and airports, as well as citizens on board such maritime vessels and aircrafts, in compliance with national legislation and international treaties."<sup>3</sup>

As part of its coastguard work, SENAN must either conduct, direct and carry out search and rescue operations in the aeronautical field, in cooperation with the responsible governments' entities.

**1.13 Ministry of Environment (MiAMBIENTE):** Fulfills its mission of determining policies for the conservation, protection and restoration of the environment and for the participatory and sustainable use of Panama's natural resources.

- **Coastal and Sea Directorate:** As part of MiAMBIENTE, it aims to provide a comprehensive management of coastal and marine resources, through an ecosystem approach that contributes to establishing a healthy environment, for the well-being of the population.<sup>4</sup>
- **Climate Change Directorate:** MyAMBIENTE Unit responsible for carrying out the Nationally Determined Contribution Review (NDC) process, a strategy under which each country sets targets to reduce greenhouse gas emissions while taking steps to address adverse climate scenarios.

**1.14 National Energy Secretariat:** It is attached to the Presidency of the Republic and has as its mission to conduct the energy policy of the country, within the current constitutional framework, to ensure the competitive, sufficient, high quality, economically viable and environmentally sustainable supply of the energy resources required by development.

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<sup>2</sup> <https://amp.gob.pa/acerca-de-nosotros/estructura-operativa/puertos/>

<sup>3</sup> <http://www.aeronaval.gob.pa/?op=funciones>

<sup>4</sup> <https://miambiente.gob.pa/direcciones/#direccin-de-costa-y-mares>

The National Energy Secretariat's role is to establish and promote the country's Energy Policy, among other things, to work with the commitments of mitigation and adaptation to change climate change.<sup>5</sup>

**1.15 Panama Canal Authority (ACP):** It is a Panamanian Government entity created from Title XIV of the National Constitution, which is privately responsible for the operation, administration, functioning, conservation, maintenance, improvement and modernization of the interoceanic route, as well as such as its related activities and services, in accordance with current constitutional legal rules, in order to ensure that the Canal operates in a safe, continuous, efficient and cost-effective manner. <sup>6</sup> This entity is organized by Organic Law No. 19 of 11 June 1997, which constitutes a regulatory framework that guarantees administrative and financial autonomy.

As part of an environmental and social strategy that promotes the comprehensive management of its watershed, called "**the Green Route**", the ACP has been investing, since 2009, in different programs to reduce greenhouse gas emissions and promote energy savings. This is "a strategy for reducing emissions in the global maritime industry; the promotion of sustainable development in the Panama Canal watershed; and establish itself as a low-carbon agency." <sup>7</sup>

Within these efforts we have the Green Connection Environmental Recognition Program, which seeks to promote emission reduction by recognizing vessels that meet the highest environmental performance standards, through initiatives such as the Green "Connection Award" and the "Environmental Premium Ranking". For these purposes, it relies on the so-called "Emissions Calculator" which is nothing more than a tool that allows to measure the emissions of the daily operations of the vessels, optimizing the planning of a strategy to raise carbon emissions, so that the Panama Canal becomes a company with a "neutral carbon balance". <sup>8</sup>

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<sup>5</sup> <http://www.energia.gob.pa/acerca-de/>

<sup>6</sup> <http://www.acp.gob.pa/esp/acp/acp-overview.html>

<sup>7</sup> <https://www.caf.com/es/actualidad/noticias/2013/06/canal-de-panama-se-convertira-en-la-ruta-verde-del-mundo/>

<sup>8</sup> <https://elcapitalfinanciero.com/el-canal-se-prepara-para-el-reto-ambiental-del-2020/>

In early 2019, the Panama Canal formally joined the Global Industry Alliance (GIA), a public-private partnership initiative that brings together maritime industry leaders seeking to improve energy efficiency and reduce gas emissions from greenhouse effect on international shipping.

The GIA is an initiative of the International Maritime Organization (IMO), within the framework of the Global Maritime Energy Efficiency Partnerships (GloMEEP) Project, a joint project of the Global Environment Fund (GEF), the United Nations Programme Development Programme (UNDP) and the IMO.<sup>9</sup>

## 1.2 Classification/Description of actors/private stakeholders:

- 1.2.1 Panama Maritime Chamber
- 1.2.2 Panama Logistics Business Council (COEL)
- 1.2.3 Panamanian Maritime Law Association (APADEMAR)
- 1.2.4 Panamanian Association of Marine Officers (APOM)

## 2. Country policies on Climate Change and Energy Efficiency:

### 2.1 Legal Framework of Maritime Administrations and any entity with jurisdiction and jurisdiction in the subject:

#### 2.1.1 Climate change provisions:

- **Executive Decree No.1 of January 9, 2009, establishing the** Panama National **Committee on Climate Change (CONACCP)**: Subsequently, by Executive Decree No. 52 of January 29, 2013 , Executive Decree No. 1 was amended, and the Committee was extended from 17 to 27 institutions.

The Panama Maritime Authority, through the Directorate General of Merchant Marine, has been part of the CONACCP since its creation in 2014. Among the issues that the Committee has been addressing, it can highlight the different meetings and workshops about we have:

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<sup>9</sup> <https://micanaldepanama.com/canal-de-panama-se-une-a-la-global-industry-alliance-gia-para-apoyar-la-reduccion-de-emisiones-en-el-transporte-maritimo-internacional/>

- ✓ Project ideas to mitigate or adapt to climate change;
  - ✓ Actions and projects that could be envisaged in a national emission reduction plan;
  - ✓ Development of the proposal of the Monitoring, Reporting and Verification System (MRV);
  - ✓ Capacity building on climate change.
  - ✓ Adoption of the Paris Agreement on Climate and Follow-up of Measures NAMAS (Nationally Appropriate Mitigation Action) and NDCs (Nationally Determined Contribution).
- **Executive Decree No. 35 of February 26, 2007**, approving the National Climate Change Policy, its principles, objectives and lines of action.
  - **Resolution NoAG-0583-2002 (MiAMBIENTE)**: Creates the National Climate Change Program under the Department of Environmental Adequacy and Management belonging to the National Directorate for Environmental Quality Protection.<sup>10</sup>
  - **Resolution No. AG-0280-2004 (MiAMBIENTE)**: Designates the National Climate Change Program as the Coordinating Unit for issues related to Energy Resources and Climate Change.<sup>11</sup>

## 2.12 Environmental provisions:

- **Environment General Law of the Republic of Panama (Law No. 41 of July 1, 1998)**
- **Law No. 8 of March 25, 2015**, by which the Ministry of Environment is established. Also amending Law No.41 of 1998.

Article 126-B establishes this standard, which the Ministry of Environment, in coordination with the competent authorities, will promote climate change adaptation initiatives that increase the country's resilience to the adverse effects of climate change, with special emphasis on the most vulnerable population and ecosystems.<sup>12</sup>

<sup>10</sup><https://miambiente.gob.pa/equipo-miambiente/#direccin-de-cambio-climtico>

<sup>11</sup><https://miambiente.gob.pa/equipo-miambiente/#direccin-de-cambio-climtico>

<sup>12</sup><http://www.miambiente.gob.pa/images/documentos temporales/Ley 8 del 25 de marzo de 2015.pdf>

**2.13** Provisions on emission reduction in the maritime transport sector:

- **Law No.2 of 3 January 1989 of 5 January 1989** approving the Vienna Convention on the Protection of the Ozone Layer.
- **Law No. 25 of 10 December 1993 approving the amendment** to the Montreal Protocol on Substances Depleting the Ozone Layer, adopted on June 29, 1990.

**2.14** Provisions on energy efficiency in the maritime field:

- **Law No. 30 of March 26, 2003:** Approving the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973, Annex VI (MARPOL 78).
- **Law No. 43 of April 25, 2011:** Reorganizing the National Energy Secretariat.
- **National Energy Plan (PEN) 2015-2050:** It is part of the policies proposed by the National Energy Secretariat (SNE).

The essential pillar of the PEN is the decarbonisation of the country's energy matrix, as a necessary element to achieve a low-carbon economy. However, the Plan focuses primarily on the electricity sector and the hydrocarbons sector. The latter addressed from the perspective of the consumption of diesel and gasoline for electric generation and land transport. It also deals with issues related to the country's energy security and efficiency.<sup>13</sup>

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<sup>13</sup> <http://www.energia.gob.pa/energia/wp-content/uploads/sites/2/2017/06/Plan-Energetico-Nacional-2015-2050.pdf>



## Pilot Project 1

### "Uptake of Ship Energy Efficient Technologies and Operations"

#### 3. Description of each participating country:

MARPOL Annex VI Contracting State
Honduras

#### 3.1 Classification/Description of actors/involved in the public sphere (Key Industry Players):

**3.1.1 Directorate-General of the Merchant Marine (DGMM):** It is the institution responsible for the administration, control and coordination of all activities related to the merchant marine and maritime transport, maritime safety and the protection of the marine environment in the Republic of Honduras.<sup>14</sup>

**3.1.2 National Defense Secretariat (SEDENA) / Naval Force of the Honduran Armed Forces:** The Honduran Naval Force was created by presidential agreement No. 0725 dated August 14, 1976, whose purpose is to safeguard the national marine territory, in the waters of the Caribbean Sea and the Pacific Ocean.

#### 3.1.3 Ministry of Energy, Natural Resources, Environment and Mines(MyAmbiente+):

- **Directorate-General for Energy:** It was created in 1997 within the structure of the Secretariat of Natural Resources and Environment with the mission of formulating policies oriented to sustainable energy development, within a participatory and legal framework meeting the country's environmental, political and socio-economic requirements.<sup>15</sup>
- **National Climate Change Directorate:** Among its main objectives is the coordination of actions aimed at formulating and implementing national policies for greenhouse gas mitigation, as well as adaptation to adverse effects climate change. In addition, it is responsible for promoting the development of Climate Action Programmes and Strategies, relating to the

<sup>14</sup> National Merchant Marine Organic Law

<sup>15</sup> <http://www.miambiente.gob.hn/dge/quien-somos/>

fulfilment of commitments made to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol.<sup>16</sup>

- **Center for Contaminant Control (CESCCO):** One of its strategic objectives is to “prevent environmental deterioration for efficient, effective and sustainable conservation natural resources, through knowledge management, environmental regulations and regulation of environmental impacts and risks.”<sup>17</sup>

### **3.2** Classification/Description of actors/private stakeholders:

**3.2.1** National Association of Industrialists (ANDI)

**3.2.2** Honduran Private Enterprise Council (COHEP)

**3.2.3** Chamber of Commerce

## **4.** Country policies on Climate Change and Energy Efficiency:

### **4.1** Legal Framework of Maritime Administrations and any entity with competence and jurisdiction in the subject:

#### **4.1.1** Climate change provisions:

- Decree No. 297-2013 (Climate Change Law). Its objective is to establish the principles and regulations necessary to plan, prevent and respond in an appropriate, coordinated and sustained way to the impacts generated by climate change in the country. <sup>18</sup> The Inter-Institutional Committee on Climate Change (CICC) is set up for this.

#### **4.1.2** Environmental provisions:

- General Law on the Environment (DecreeNo. 104-93)- The Gazette of 30 June 1993.
- Law on the Production and Consumption of Biofuels (Decree 144 of 2007)

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<sup>16</sup> <http://www.miambiente.gob.hn/dncc/quien somos/>

<sup>17</sup> <http://www.miambiente.gob.hn/blog/view/calidad-del-aire-en-tegucigalpa>

<sup>18</sup> <http://extwprlegs1.fao.org/docs/pdf/hon148582.pdf>

- Law on the Use of Water (Decree No. 137–1927)

#### 4.13 Provisions on emission reduction in the maritime transport sector:

- Even though Honduras does not have specific provisions on reduction of emissions for the maritime transport sector, since 2016 it signed the 2015 Paris Agreement, within the framework of the United Nations Framework Convention on Climate Change which establishes measures for the reduction of greenhouse gases (GHG) emissions through the mitigation, adaptation and resilience of global warming ecosystems.
- **Project for Environmental Protection and Pollution Control Originated by Maritime Transport in the Gulf of Honduras (Gulf of Honduras Project):** It is implemented by COCATRAM and co-executed by the Central American Commission on Environment and Development (CCAD) through a Regional Program Coordinating Unit (URCP), based in Puerto Cortes, Honduras.

The Gulf of Honduras Project is a regional initiative supported by the Global Environment Facility (GEF), through a non-refundable fund No. GRT/FM – 9179 – US\$4.8 million RS, administered by the Inter-American Development Bank (IDB), US\$2.4 million from the contribution of the participating countries: Belize, Guatemala and Honduras.

The development objective of the Project is to "contribute to reversing the degradation of marine and coastal ecosystems, intensifying the control and prevention of pollution caused by maritime transport in major ports and shipping routes, improving navigational safety to prevent ships groundings and spills and reduce the influx of pollutants from land pollution sources into adjacent coastal and marine areas within the Gulf of Honduras."<sup>19</sup>

As a result of research conducted in the Gulf of Honduras, a paper called Environmental Diagnostic Analysis of the Gulf of Honduras (ADA) was prepared containing a synthesis of information on physical status, biogeochemistry, socioeconomic and legal area under study.

Among the problems identified in relation to port and maritime activities and operations, the ADA highlights the need for more efficient management of atmospheric emissions from shipping and maritime

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<sup>19</sup> <http://www.cocatram.org.ni/golfo/pgh.html>

transport (which include, very in particular, engine exhaust gases that may contain nitrogen oxides, sulphur dioxide, hydrocarbons, monoxide and carbon dioxide as well as particulate matter).

#### 4.14 Provisions on energy efficiency in the maritime field:

- Honduras approved, by Decree No. 41 of 2016, approved Agreement No. 09-DGTC, dated March 2014, sent by the executive branch through the State Secretariat in the International Affairs Office and International Cooperation Office. This document contains MARPOL Annex VI regulations for the prevention of air pollution from ships.
- Honduras does not currently have specific regulations on energy efficiency for ships, however, it participates in the Energy Efficiency Indicators Base (BIEE) program, which is an initiative of the governments of the region and the Economic Commission for Latin America and the Caribbean (ECLAC), "so that through their results, analysis and conclusions, governments formulate appropriate policies and incentives for each energy-consumption subsector to make efficient use of energy in all the processes in which it participates and to identify areas of energy investment in energy efficiency, with the aim of improving competitiveness and producing energy in a more environmentally friendly way."<sup>20</sup>
- Currently in Honduras there is the regulation for the control of emissions generated by Fixed Sources since 2011, which must be accompanied by other regulations that regulate ambient air, indoor air, vehicle emissions among others that allow strengthen Air Quality Management.
- The most recent National Energy Efficiency Monitoring Report in Honduras is from 2018 and was prepared based on information provided for the development of the Energy Efficiency Base Indicators (BIEE). It focuses on the electricity and hydrocarbons subsectors.
- The country has advanced on efforts to develop data on hydrocarbon consumption (diesel in particular) in the fisheries sector. However, data concerning energy consumption by the merchant fleet are not added to the Energy Efficiency Base Indicators.<sup>21</sup>

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<sup>20</sup> [https://repositorio.cepal.org/bitstream/handle/11362/43983/S1800542\\_es.pdf.txt](https://repositorio.cepal.org/bitstream/handle/11362/43983/S1800542_es.pdf.txt)

<sup>21</sup> Economic Commission for Latin America and the Caribbean (2018). *National Energy Efficiency Monitoring Report of Honduras, 2018*. Mexico City: ECLAC



## Pilot Project 1

### "Uptake of Ship Energy Efficient Technologies and Operations"

#### 5. Description of the participating country:

MARPOL Annex VI Contracting State
Peru

#### 5.1 Classification/Description of actors/involved in the public sphere:

**5.1.1 Directorate General of Captainships and Coast Guards (DICAPI):** This entity, attached to the Peruvian Navy, serves as the Maritime, Fluvial and Lake Authority, as well as coast guard of Peru. Through the Environment Directorate, "exercise control and surveillance to prevent and combat the effects of aquatic pollution in general, in everything that causes ecological damage within its competence, with the application to national standards and international conventions on the subject, without prejudice to its functions in other sectors of public administration."<sup>22</sup>

By legal provision, this Directorate is responsible for the administration of the MARPOL 73/78 Convention, as part of the exercise of the national maritime authority, in conjunction with the Heads of District and Captains of Port, within their respective jurisdictional constituencies.<sup>23</sup>

**5.1.2 Ministry of the Environment:** It is a branch of the Executive Branch of Peru created by Legislative Decree No. 1013 of May 13, 2008. Its primary function is to be rector of the environmental sector with the functions of designing, establishing, executing and supervising national and environmental sectoral policy.<sup>24</sup>

Through the General Directorate of Climate Change and Desertification, MINAM performs the following functions:

- Conduct the development of national guiding tools for adaptation to the effects of climate change and desertification by considering ecosystems, basins, territories, livelihoods and populations vulnerable to climate

<sup>22</sup> <https://www.dicapi.mil.pe/direcciones/dirnam>

<sup>23</sup> Legislative Decree 1147 of December 10, 2012

<sup>24</sup> [http://www.minam.gob.pe/?option=com\\_content&view=article&id=120&Itemid=36](http://www.minam.gob.pe/?option=com_content&view=article&id=120&Itemid=36)

change; also, for the reduction/removal of greenhouse gas emissions; in coordination with the relevant entities.

- Conduct coordination and promote articulation for the implementation of the National Climate Change Strategy and the Strategy to Combat Desertification and Drought, at the national level and in coordination with the competent entities.
- Drive the development and promote the implementation of management tools that promote resilience and adaptation to climate change by considering ecosystems, basins, territories, livelihoods and populations vulnerable to climate change, in coordination with the relevant entities.
- Conduct reporting on the fulfilment of international commitments on adaptation, greenhouse gas mitigation and desertification under the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention to Combat Desertification (UNCCD).
- Conduct the design and implementation of monitoring, reporting and verification for the adaptation and mitigation of climate change, as well as mechanisms related to the fight against desertification, in coordination with the competent entities.
- Coordinate the implementation of Nationally Determined Contributions and their periodic report as established by the UNFCCC, with the competent entities.
- Conduct the implementation of the Programme on Reducing Emissions from Deforestation and Forest Degradation (UN REDD), in coordination with the competent entities.
- Lead the implementation of INFOCARBONO and the National Register of GHG and other Emissions Reduction Initiatives related to GHG emission management within the framework of their competence, ensuring interoperability and dissemination through SINIA.
- Propose the consolidated national position and participate within the framework of the UNFCCC, in the climate change adaptation component and in UNCCD, in coordination with the competent entities, as appropriate.

**5.13 Environmental Assessment and Control Agency (OEFA):** a specialized technical public body, attached to the Ministry of the Environment, responsible for promoting and promoting compliance with environmental regulations in

economic operators and improving the National System of Environmental Management in an articulated, effective and transparent manner, in order to safeguard the balance between investment in economic activities and environmental protection and thus contribute to the sustainable development of the country. OEFA is also the Governing Body of the National Environmental Assessment and Control System (SINEFA).<sup>25</sup>

**5.14 Ministries of Energy and Mines (MINEM):** Formulates and evaluates national policies on the sustainable development of energy-mining activities, contributing to human development, as well as reducing environmental impact.<sup>26</sup>

**5.2** Classification/Description of actors/private stakeholders (Key Industry Players):

**6.** Country policies on Climate Change and Energy Efficiency.

**6.1** Legal Framework of Maritime Authorities and any entity with competence and jurisdiction in the subject.

**6.1.1** Climate change provisions

- Legislative Resolution No. 27824 of September 10, 2002, by which the Kyoto Protocol to the United Nations Framework Convention on Climate Change was ratified.
- Resolution Directoral No. RD-024-2010-MGP-DGCG of February 19, 2010, which adopts rules for the prevention of air pollution from ships.

**6.1.2** Environmental provisions:

- Supreme Decree No. 015-2004-DE of November 26, 2014 (Ministry of Defense), approving the Regulation of Legislative Decree No. 1147, which regulates the strengthening of the Armed Forces in the competences of the National Maritime Authority. Chapter III of this Regulation is devoted to the protection of the aquatic environment, including the prevention of pollution and civil liability arising therefrom. Similarly, the management of dangerous goods and nuclear or radioactive material is regulated.
- General Law on the Environment (Act No. 28611 of October 13, 2005). This standard adopts a National Environment Policy, as well as the National

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<sup>25</sup> <https://www.oefa.gob.pe/somos-oefa>

<sup>26</sup> <https://www.gob.pe/738-ministerio-de-energia-y-minas-que-hacemos>

Environmental Management System, which "is responsible for the functional and territorial integration of policy, standards and management instruments, as well as public functions and coordinating relations of state institutions and civil society, in environmental matters."<sup>27</sup>

In the area of Environmental Quality, the standard refers to the protection of air quality and provides for the implementation of contingency plans for the prevention or mitigation of health and environmental risks and damages resulting from the pollutants.<sup>28</sup>

- Law No. 28245 of June 4, 2004, Framework Law governing the National Environmental Management System, which aims to guide, integrate, coordinate, monitor, evaluate and ensure the implementation of policies, plans, programs and actions aimed at protecting the environment and contributing to the conservation and sustainable use of natural resources.
- Supreme Decree No. 012-2009-MINAM of 22 May 2009 approving the National Environment Policy.

#### **6.13** Provisions on emission reduction in the maritime transport sector:

- Resolution Directorial No. 0823-2018 MGP/DGCG dated 13 July 2018 resolves to incorporate into national standards Resolution MEPC.278 (70), amendments to ANNEX VI of the MARPOL Convention concerning the Data Collection System for Fuel Oil Consumption of Ships, in accordance with Annex (9) which is an integral part of this Directorial Resolution.

#### **6.14** Provisions on energy efficiency in the maritime field:

- Resolution Directorial No. 0823-2018 MGP/DGCG dated 13 July 2018 resolves to incorporate into national standards Resolution MEPC.278 (70), amendments to ANNEX VI of the MARPOL Convention concerning the Data Collection System for Fuel Oil Consumption of Ships, in accordance with Annex (9) which is an integral part of this Directorial Resolution. In accordance with these regulations, it is the responsibility of the DICAPI:

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<sup>27</sup> General Law on the Environment (Article 18)

<sup>28</sup> General Law on the Environment (Article 118).

- a. Collect the forms (in physical and digital format) to be submitted by all vessels of gross tonnage of 5000 or more, which from the 2019 calendar year will collect the data specified in Appendix IX to Resolution MEPC.278 (70), in accordance with the methodology included in the 2016 Guidelines for the Development of a Ship Energy Efficiency Management Plan (SEEMP).
- b. Collect the Forms (in physical and digital format) for the reporting of fuel consumption by vessels of gross tonnage equal to or greater than 5000, of national and foreign flag that operate in the maritime domain of the Peruvian State.
- c. Issue the respective Certificates of Compliance, after receipt of the fuel consumption reports.



## Pilot Project 1

### “Uptake of Ship Energy Efficient Technologies and Operations”

#### 1. Description of each participating country:

MARPOL Annex VI no Contracting State
COLOMBIA

#### 1.1 Classification/Description of actors/involved in the public sphere (Key Industry Players):

**1.1.1 National Navy:** "It has as a constitutional function to contribute to the defense of the Nation by applying the Naval Power. The effective use of such power should lead to the consolidation and assurance of territorial security of citizens and the State within the jurisdiction of the National Navy. "<sup>29</sup>

- **Coast Guard Command:** It fulfils a maritime security function by suppressing crime at sea, controlling the preservation of the marine environment and search and rescue operations.<sup>30</sup>

**1.1.2 Maritime General Directorate (DIMAR):** "It is the Colombian Maritime Authority responsible for implementing the government's policy in this area, having a structure that contributes to the strengthening of national maritime power, enthusing the comprehensive maritime security, the safety of life at sea, the promotion of maritime activities and the scientific and technological development of the Nation." <sup>31</sup> It is a public entity attached to the Ministry of National Defense (MINDEFENSA).

In order to carry out the implementation of its programs, DIMAR has military personnel: active-duty officers and non-commissioned officers of the National Navy, highly prepared, trained and specialized in aspects related to Naval and Maritime Affairs, Marine Science and Oceanography, International Affairs and Maritime Law both nationally and internationally. It also has civil servants in the

<sup>29</sup> <https://www.armada.mil.co/es/content/objetivos-y-funciones>

<sup>30</sup> <https://www.armada.mil.co/es/content/comando-de-guardacostas>

<sup>31</sup> <https://www.dimar.mil.co/que-es-dimar-mision-y-vision>

different fields of scientific, professional, technological, technical and healthcare knowledge.

Within its structure, the Regional Agents are formed by 17 Port Captaincies covering the Pacific and Atlantic coasts, island areas and main international rivers. It has two research centers: CIOH Center for Oceanographic and Hydrographic Research in Cartagena and the CCCP Center Control Pollution of the Pacific in Tumaco. It is also responsible for three maritime signaling sectionals: Cartagena, Barranquilla and Buenaventura.<sup>32</sup>

- **Port Captaincy:** The Maritime General Direction (DIMAR) has an extensive infrastructure composed of 17 port captaincies, responsible for complying with legislation related to maritime activities and on the Pacific and Caribbean coasts, island areas, in rivers with international traffic and in the final 27 km before the mouth of the Magdalena River into the sea.<sup>33</sup>

**1.1.3 Ministry of Environment and Sustainable Development (MINAMBIENTE):** It is the rector of the management of the environment and renewable natural resources, responsible for guiding and regulating the environmental order of the territory and defining policies and regulations to ensure the recovery, conservation, protection, arrangement, management, use and sustainable use of the nation's renewable natural resources and environment, in order to ensure sustainable development, without harming the assigned functions of other sectors.<sup>34</sup> Much of this work is done by MINAMBIENTE through the Climate Change and Risk Management Directorate.

- **Directorate of Marine, Coastal and Aquatic Resource Affairs:** As part of MINAMBIENTE, it allows to have an adequate management of the ecosystem services provided by the marine-coastal areas of Colombia and the respective protection of the associated marine biodiversity. In such a way that it strives for a sustainable management of the Colombian seas and coasts.<sup>35</sup>

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<sup>32</sup> <https://www.armada.mil.co/es/content/dimar-49-a%C3%B1os-de-historia?page=3&splash=>

<sup>33</sup> <https://www.dimar.mil.co/capitanias-de-puerto>

<sup>34</sup> <http://www.minambiente.gov.co/index.php/ministerio/objetivos-y-funciones>

<sup>35</sup> <http://www.minambiente.gov.co/index.php/asuntos-marinos-y-costeros-y-recursos-acuaticos>

**1.1.4 Ministry of Mines and Energy (MINMINAS):** A national public entity of the top central executive level, whose responsibility is to manage the country's non-renewable natural resources ensuring their best and maximum use; guidance on their use and regulation, ensuring their supply and ensuring the protection of the natural resources of the environment in order to ensure their conservation, restoration and sustainable development, in accordance with the environmental assessment, monitoring and management criteria, as indicated by the competent environmental authority.<sup>36</sup>

**1.2 Classification/Description of actors/private stakeholders:**

**1.2.1** Colombian Shipowners Association (ARMCOL)

**1.2.2** National Association of Shippers (ASONAV)

**1.2.3** Colombian Petroleum Association (ACP)

**1.2.4** National Fuel Federation of Colombia (FEDEBIOCOMBUSTIBLES)

**2. Country policies on climate change and Energy Efficiency:**

**2.1 Legal Framework of Maritime Administrations and any entity with competence and jurisdiction in the subject matter:**

**2.1.1** Climate change provisions:

- **Climate Change Act (No. 1931 of July 27, 2018) :** In its first article it sets as its objective "to establish guidelines for the management of climate change in the decisions of public and private persons, the turnout of the nation, Departments, Municipalities, Districts, Metropolitan Areas and Environmental Authorities mainly in climate change adaptation actions, as well as in greenhouse gas mitigation, with the aim of reducing the vulnerability of the population and the country's ecosystems in the face of its effects and promote the transition to a competitive, sustainable economy and low-carbon development. "<sup>37</sup>

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<sup>36</sup> <https://www.minenergia.gov.co/ministerio;jsessionid=NKzE8S8ecv8cG0WXPrCdXKUj.portal2>

<sup>37</sup> <http://www.minambiente.gov.co/index.php/ley-de-cambio-climatico#ley-de-cambio-clim%C3%A1tico-1931-2018>

The National Climate Change System (SISCLIMA), is created by the Intersectoral Committee on Climate Change (CICC). This system is the set of policies, rules, processes, state entities, private entities, resources, plans, strategies, instruments, mechanisms, as well as information related to climate change, which is applied in an organized manner to manage greenhouse gas mitigation and climate change adaptation (see Section 4 of the Climate Change Act).

#### 2.1.2 Environmental provisions:

- **General Environmental Law of Colombia (Law No. 99 of December 22, 1993)**
- **Decree No. 948 of June 5, 1995**, for which Law No. 23 of 1973, Articles 33, 73,74, 75 and 76 of Decree Law 2811 of 1974 are partially regulated; Articles 41, 42, 43, 44, 45, 48 and 49 of Law No. 9 of 1979; and Law No. 99 of 1993 on the prevention and control of air pollution and the protection of air quality.
- **Law No. 945 of 2005** by means of which the Basel Protocol on Liability and Compensation for Damages resulting from Transboundary Movements of Hazardous Wastes and their Disposal is adopted", concluded in Basel on December 10, 1999.
- **Law No. 30 of 1990** by means of which the Vienna Convention for the Protection of the Ozone Layer is approved, adopted in Vienna, on March 22, 1985.
- **Decree No. 1076 of 26 May 2015**, issuing the Single Regulatory Decree of the Environment and Sustainable Development Sector.

#### 2.1.3 Provisions on emission reduction in the maritime transport sector:

- **Colombian Low Carbon Development Strategy:** Colombia is one of the countries that made a commitment to reduce greenhouse gas (GHG) emissions by 2030, in accordance with those agreed at the 21st Meeting of the Conference of the Parties on Climate Change (COP21). In order to monitor the fulfilment of these objectives, the Indicative Action Plan was implemented with the commitments made by the country at COP21.

Some of the information collected and processed in the Indicative Energy Efficiency Action Plan relates to energy consumption by mode of transport,

including the maritime transport, taking into account that the two consumer sectors priority is transport and industry.<sup>38</sup>

- **Law No. 12 of 1981**, by which the Republic of Colombia approved MARPOL 73/78.

Colombia is not a State party to the 1997 Protocol approving Annex VI to the MARPOL Convention. However, it has internal regulations that treat maritime transport as one of the so-called sources of mobile air pollution.<sup>39</sup> Such emissions are considered as first-degree pollutants for their ability to contribute especially to the aggravation of the greenhouse effect or global climate change.<sup>40</sup>

#### 2.1.4 Provisions on energy efficiency in the maritime field:

- **Law No. 1715 of 2014**. Whose main purpose is the promotion of The Non-Conventional Renewable Energy Sources (FNCER) in The Colombian Energy Matrix, but it also indicates within the purpose of the law the promotion and energy efficiency management that includes both energy efficiency and demand response.

Law 1715 defines energy efficiency as "the relationship between the energy used and the total used in any process of the energy chain, which seeks to be maximized through good practices, technological conversion or fuel replacement."<sup>41</sup>

- **Energy Efficiency Indicative Action Plan (IAP) 2017 - 2022**: The Energy Mining Planning Unit (UPME) of the Ministry of Mines and Energy has an Indicative Energy Efficiency Action Plan (IAP) 2017 – 2022, which has among its specific objectives "to harmonize the goals of this Indicative Action Plan with the country commitments established for the reduction of Greenhouse Gases (GHG); Through the Sectoral Action Plans (PAS), or other instruments designed for this purpose."<sup>42</sup>

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<sup>38</sup> [file:///D:/MTCC%202019/COLOMBIA/PAI\\_PROURE\\_2017-2022.pdf](file:///D:/MTCC%202019/COLOMBIA/PAI_PROURE_2017-2022.pdf)

<sup>39</sup> Artículo 18 del Decreto N° 948 de 5 de junio de 1995

<sup>40</sup> <https://encolombia.com/medio-ambiente/normas-a/hume-decreto94895/>

<sup>41</sup> <https://www.dnp.gov.co/Crecimiento-Verde/Documents/ejes-tematicos/Energia/MCV%20-%20Energy%20Demand%20Situation%20VF.pdf>

<sup>42</sup> [https://www1.upme.gov.co/DemandaEnergetica/MarcoNormatividad/PAI\\_PROURE\\_2017-2022.pdf](https://www1.upme.gov.co/DemandaEnergetica/MarcoNormatividad/PAI_PROURE_2017-2022.pdf)

This Plan addresses energy efficiency in the short and medium term, from the perspective of the supply of energy production and the demand of the sectors: transport, industrial, tertiary and residential.



## Pilot Project 1

### “Uptake of Ship Energy Efficient Technologies and Operations”

#### 1. Description of each participating country:

MARPOL Annex VI no Contracting State
Ecuador

#### 1.1 Classification/Description of actors/involved in the public sphere (Key Industry Players):

**1.1.1 Ministry of National Defense (MIDENA):** Through the **Naval Forces**, in its capacity as the Maritime Police Authority, it has, among other powers, functions, delegations and competences, that of representing the State before national and international bodies and for a, such as the National Maritime Police Authority, on issues related to the safety of navigation, security of human life at sea, maritime protection and other areas of its competence.<sup>43</sup>

Another function of the Ministry is to promote the country's adherence to international conventions related to the safety of navigation, safety of life at sea, maritime protection and others related to the scope of its competence.

It is also responsible for controlling, guiding and maintenance of Port Captaincies and the Coast Guard Command.

**1.1.2 Ministry of Transport and Public Works (MTOP):** A state entity that aims to contribute to the development of the country through the formulation of policies, regulations, plans, programs and projects, which ensure a National Intermodal and Multimodal Transport System, supported by a transport network with international quality standards, aligned with economic, social, environmental guidelines and the national development plan.<sup>44</sup>

- **Sub-secretariat of Ports and Maritime and River Transport:** Dependence of the (MTOP) that exercises the role of The National Port Authority and the Water Transport. It has among its functions, to ensure the safeguarding of

<sup>43</sup> Artículo 3 del Decreto N° 723 de 9 de julio de 2015.

<sup>44</sup> <https://www.obraspublicas.gob.ec/objetivos/>

the technical security of maritime and river transport, including the regularization and provisional registration of consolidator and/or deconsolidation of maritime cargo, regulation and control of shipowners and shipping agents, control of shipowners, permits, passers-by, ship patents, inspection certificates, traffic permits and all documents or certifications that are necessary to ensure compliance assigned competencies.<sup>45</sup>

**1.1.3 Ministry of the Environment:** It is the body responsible for providing and determining valid and relevant information and research to improve environmental governance in the fields of regulation, international dynamics and citizen participation. Likewise, it has as one of its objectives the realization of environmental, social and economic vulnerability to climate change, to raise awareness of the causes and effects of this anthropogenic phenomenon and promote the reduction of greenhouse gas emissions in the productive and social sectors.<sup>46</sup>

- **Sub-secretariat for Climate Change:** Ministry of the Environment (MAE) unit responsible for promoting and incentivizing policies for the promotion of the rational use of energy in Ecuador, applied to offices and households; greenhouse gas reduction initiatives Greenhouse (GHG); and climate change mitigation. This within the framework of transformation of the country's energy matrix, which seeks to strike a balance between economic growth and environment conservation.<sup>47</sup>

**1.1.4 Ministry of Energy and Non-Renewable Natural Resources:** Its mission is to enable the development and sustainable use of energy and mining resources, with social and environmental responsibility, through the formulation, implementation, monitoring and evaluation of public policies, applying in its management principles of efficiency, transparency and integrity.<sup>48</sup> The emphasis of its management focuses on compliance with sustainability mechanisms in the environmental and social management of the country's energy and mining sector.

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<sup>45</sup> Artículo 2 del Decreto N° 723 de 9 de julio de 2015.

<sup>46</sup> <http://www.ambiente.gob.ec/objetivos/>

<sup>47</sup> <http://www.ambiente.gob.ec/ecuador-promueve-la-eficiencia-energetica-a-nivel-nacional/>

<sup>48</sup> <https://www.recursosyenergia.gob.ec/planificacion-estrategica/>

## 1.2 Classification/Description of actors/private stakeholders:

- 1.2.1 Ecuador Maritime Chamber (CAMAE)
- 1.2.2 Ecuadorian Association of International Freight and Logistics Agencies (ASEACI)
- 1.2.3 Logistics Association of Ecuador (ASOLOG)
- 1.2.4 Ecuadorian Association of Boat owners and shrimpers (ASEARBAPESCA)
- 1.2.5 EP Ecuadorian Petroleum Fleet (FLOPEC)
- 1.2.6 Ecuador's Public Hydrocarbons Company (PETROECUADOR)

## 2. Country policies on Climate Change and energy efficiency:

### 2.1 Legal Framework of Maritime Administrations and any entity with jurisdiction and jurisdiction in the subject matter:

#### 2.1.1 Climate change provisions:

- **United Nations Framework Convention on Climate Change (UNFCCC) which entered into force in 1994:** Ecuador has been part of the UNFCCC since 1994 and also ratified the Kyoto Protocol in 1999.<sup>49</sup>

#### 2.1.2 Environmental provisions:

- **Organic Environmental Code (COA)**, filed in the Official Register, Supplement No. 938 of April 12, 2017: It is a framework law that regulates the administrative-environmental field, with the aims to guarantee people's right to a healthy and balanced environment; and the rights of Nature.<sup>50</sup>

Environmental management and natural resource management will be regulated through the National Decentralized Environmental Management System (SNDGA).

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<sup>49</sup> <http://extwprlegs1.fao.org/docs/pdf/ecu140074.pdf>

<sup>50</sup> <https://www.tzvs.ec/noticiasdestacadas/nuevo-codigo-organico-del-ambiente/>

- **Montreal Protocol 5-9 November 2018**, concerning substances that deplete the Ozone Layer. Ecuador, acceded to this international treaty in 1990, being appointed in 1992 to the current Ministry of Industries and Productivity, as the official executing entity and focal point of the Montreal Protocol.<sup>51</sup>

### 2.1.3 Provisions on emission reduction in the maritime transport sector:

- **RTE INEN 017:2008, amending 1:2016**: Ecuadorian Technical Regulation establishing procedures for the control of polluting emissions from terrestrial mobile sources, in order to protect human, animal and animal life and health environmental, without prejudice to the efficiency of motor vehicles.<sup>52</sup>
- **Organic Environmental Code (Article 261)**: Establishes as a minimum measure of adaptation and mitigation of climate change, the quantification of greenhouse gas emissions, according to the priority sectors and the promotion of the actions of mitigation.

### 2.1.4 Provisions on energy efficiency in the maritime field:

- **Organic Law on Energy Efficiency of March 19, 2019**: As it is established on Article 1, the main objective is to increase energy productivity, to promote the competitiveness of the national economy, to build a culture of environmental sustainability and energy efficiency, contribute to climate change mitigation and guarantee people's rights to live in a healthy environment and take informed decisions.<sup>53</sup>

One aspect to be highlighted is the wording of Article 20 of the Energy Efficiency Act, as regards the investigation and technological development. In this regard, it points to the rule that the Ecuadorian State will promote scientific research and technological development in the field of energy efficiency and rational use of energy at the level of universities, polytechnic schools, and may involve national companies involved in research projects.<sup>54</sup>

- **Organic Environment Code (Article 261)**: In its numeral 9, emphasis is placed on the promotion and development of energy efficiency programs, within the

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<sup>51</sup> <https://www.industrias.gob.ec/reunion-de-las-partes-del-protocolo-de-montreal-5-9-noviembre-de-2018/>

<sup>52</sup> <http://ininvalidacionycertificacion.blogspot.com/2017/04/control-de-emisiones-contaminantes-de.html>

<sup>53</sup> <https://www.recursoyenergia.gob.ec/wp-content/uploads/downloads/2019/03/Ley-Eficiencia-Energe%CC%81tica.pdf>

<sup>54</sup> Artículo 20 de la Ley Orgánica de Eficiencia Energética de 19 de marzo de 2019

entire chain, as well as the establishment of economic and non-economic incentives of renewable energy. Next, in numeral 10, reference is made to the promotion of sustainable means of transport and low emissions of greenhouse gases.



## Pilot Project 1

### "Uptake of Ship Energy Efficient Technologies and Operations"

#### 7. Description of each participating country:

MARPOL Annex VI no Contracting State
Mexico

#### 7.1 Classification/Description of actors/involved in the public sphere (Key Industry Players):

**7.11 Navy Secretariat (SEMAR):** From June 17, 2017, the Federal Executive exercises the national maritime authority through a binomial that integrates the powers of the Port Captaincies, and the means by which the Marine Secretariat exercises the functions of Coast Guard.<sup>55</sup>

**7.12 Directorate General of Merchant Marine attached to the General Coordination of Ports and Merchant Marine of the Secretariat of Communications and Transport (SCT):** It is the unit to regulate and implement policies that promote the adequacy and security of maritime transport and to promote the national merchant navy, to support the competitiveness of the country's internal and external trade, in accordance with the applicable national and international regulatory framework.<sup>56</sup>

**7.13 Port Captaincy and Maritime Affairs Unit (UNICAPAM):** Aims to "direct the activities of the Port Captaincies in terms of safety and maritime protection and pollution prevention, as well as safeguarding strategic areas and facilities, in accordance with national and international regulations."<sup>57</sup> The following are the legal powers of the Port Captaincy:<sup>58</sup>

- Authorize arrivals and dispatches of vessels and naval artifacts.

<sup>55</sup> <https://www.gob.mx/semar/articulos/capitanias-de-puerto-a-la-secretaria-de-marina?idiom=es>

<sup>56</sup> <https://www.gob.mx/puertosymarinamercante>

<sup>57</sup> <https://www.gob.mx/semar%7Cunicapam/que-hacemos>

<sup>58</sup> Law on Navigation and Maritime Commerce (Article 9)

- Regulate and monitor general communication channels.
- Order the measures required by the Unified Center for Maritime and Port Protection (CUMAR), in accordance with the provisions of the Ports Act.
- Flag and register Mexican vessels and naval artifacts.
- Require certificates and inspect any vessel.
- Receive and process labor claims from crew members and boat workers.
- Grant permits for the provision of passenger maritime transport and nautical tourism services.
- Certify journeys, issue sea books and maritime identity.
- Act as an assistant to the Public Prosecutor's Office and impose sanctions under the terms of the Law on Navigation and Maritime Commerce.

**7.14 Intersecretarial Commission for the Sustainable Management of Seas and Coasts (CIMARES):** consisting of ten secretaries of state and various decentralized agencies of the Federal Public Administration, whose objective is to formulate and implement policies national planning, management and sustainable development of these regions in the territory. To achieve its objective, CIMARES develops the project entitled: "National Policy of Seas and Coasts of Mexico", a comprehensive management instrument aimed at stopping and reversing the deterioration that our seas have suffered over decades, and to enhance their current and future development<sup>59</sup>

**7.15 Secretariat of Environment and Natural Resources (SEMARNAT):** It is one of the secretariats of state that make up the so-called legal cabinet of the President of Mexico. It is the office of the federal executive branch responsible for ensuring sustainable development and environmental balance. In addition, each State has its own Secretariat of the Environment with its own functions and competences.

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<sup>59</sup> [https://www.gob.mx/cms/uploads/attachment/file/316341/Libro\\_Autoridad\\_Mar\\_tima\\_Nacional.pdf](https://www.gob.mx/cms/uploads/attachment/file/316341/Libro_Autoridad_Mar_tima_Nacional.pdf)

Among the directorates and dependencies of SEMARNAT, we can mention the following:

- **Agency for Safety, Energy and Environment (ASEA):** It is a decentralized administrative body of the Secretariat of Environment and Natural Resources, with technical and management autonomy, responsible for regulating and supervising industrial safety, operational safety and environmental protection in the activities of the hydrocarbons sector.

The Agency is aimed at regulating and supervising industrial, operational and environmental safety, installations and activities in the hydrocarbons sector, including dismantling activities and abandonment of facilities, as well as waste control.<sup>60</sup>

- **National Institute of Ecology and Climate Change (INECC):** Decentralized public government of the federal public administration, with legal personality, own heritage and management autonomy, sectorized in the Ministry of the Environment and Natural Resources, in accordance with the provisions of the Federal Law on Parastatal Entities. One of its objectives is to coordinate and carry out studies and projects of scientific or technological research with academic, research, public or private institutions, national or foreign in terms of climate change, environmental protection and preservation and restoration of ecological balance.<sup>61</sup>
- **Directorate-General for Air Quality Management and Pollutant Release and Transfer Register:**

The Directorate-General for Air Quality Management is responsible for carrying out the Pollutant Release and Transfer Register (RETC). This is an environmental policy instrument that disseminates annually the information on the emissions and transfers of the RETC Substances, listed in the Official Mexican Standard NOM-165-SEMARNAT-2013, which are generated by the establishments subject to reporting in accordance with the current legal framework.

One of the objectives of the RECT is to provide information to society, companies, non-governmental organizations, research institutions and international organizations, for the development of studies aimed at preserving and protect the environment; as well as the Federal, State and Municipal governments to establish environmental policies aimed at

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<sup>60</sup> <https://www.gob.mx/asea#558>

<sup>61</sup> General Law on Climate Change (Article 15)

reducing pollution generated by the country's productive activities. As of 2014, it only records greenhouse gases and compounds below 25,000 tons of CO2 equivalent.<sup>62</sup>

## 7.2 Classification/Description of actors/private stakeholders:

**721** Association of the Merchant Maritime Sector of the Mexican Republic, A.C.

**722** Mexican Association of Port, Maritime and Coastal Infrastructure (AMIP)

**723** Mexican Association of Shipping Agents A.C. (AMANAC)

## 8. Country policies on Climate Change and Energy Efficiency:

### 8.1 Legal Framework of Maritime Administrations and any entity with competence and jurisdiction in the subject:

#### 8.1.1 Climate change provisions:

- **General Climate Change Act 2012**, reformed in 2018: This standard defines the competences and commitments of federal, state and local authorities, in the fight against climate change.

In its article 13, it is created the National Institute of Ecology and Climate Change (INECC).

The law provides for the principles established for the formulation of a National Climate Change Policy, which provides for public policies for adaptation and mitigation of climate change at the national level.

Article 31 provides that the national climate change mitigation policy shall include, through the planning instruments, policy and economic instruments provided for in this law, a diagnosis, planning, measurement, monitoring, reporting, verification and evaluation of national emissions.

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<sup>62</sup> <https://www.gob.mx/semarnat/acciones-y-programas/registro-de-emisiones-y-transferencia-de-contaminantes-retc>

**8.12** Environmental provisions:

- **Law of the National Agency for Industrial Safety and Environmental Protection of the Hydrocarbons Sector (2014).**

**8.13** Provisions on emission reduction in the maritime transport sector:

- **Maritime Navigation and Trade Act** (Last reform published DOF 19-12-2016). Chapter VII addresses the issue of the prevention and control of marine pollution. Emphasis is placed on civil liability for damage from marine pollution from vessels, naval devices and coastal industries.

Under this Act, it is up to the Secretariat of Environment and Natural Resources (SEMARNAT) to coordinate with the Marine Secretariat (SEMAR), the prevention and control programs of the marine pollution, as well as the National Maritime Contingency Plan. It shall also penalise offenders within the jurisdiction of their competence.<sup>63</sup>

- **Regulations of the General Law on Climate Change in matters of the National Emissions Registry (2014).** While not a specific regulation for the maritime sector, it specifies the sectors and subsectors, and the corresponding activities, which are subject to reporting. The Regulation also lists the greenhouse gases subject to reporting.<sup>64</sup>

**8.14** Provisions on energy efficiency in the maritime field:

- **Law for the Sustainable Use of Energy.** Published on the Official Journal of the Federation on November 28, 2008.<sup>65</sup>
- In May 2019, the Parliamentary Group of the Labour Party presented a legislative proposal urging the Federal Executive to send the Senate of the Republic the Annex VI, entitled: "Rules for the Prevention of Air Pollution from Ships", of the International Convention for the Prevention of Pollution from Ships (MARPOL), for analysis and if applicable its approval.<sup>66</sup>

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<sup>63</sup> Maritime Navigation and Trade Act (Article 76)

<sup>64</sup> <https://www.ecolex.org/es/details/legislation/reglamento-de-la-ley-general-de-cambio-climatico-en-materia-del-registro-nacional-de-emisiones-lex-faoc139365/?xcountry=M%C3%A9xico&xsubjects=Aire+y+atm%C3%B3sfera&type=legislation&page=2>

<sup>65</sup> <https://www.gob.mx/conuee/que-hacemos>

<sup>66</sup> [http://infosen.senado.gob.mx/sgsp/gaceta/64/1/2019-05-22-1/assets/documentos/PA\\_PT\\_pinedomarpol.pdf](http://infosen.senado.gob.mx/sgsp/gaceta/64/1/2019-05-22-1/assets/documentos/PA_PT_pinedomarpol.pdf)

- Thanks to a joint work with the U.S. Environmental Protection Agency (EPA) and the Canadian Ministry of Transport (Transport Canada), the Mexican government, through the Environmental Cooperation Commission (CCA), has been evaluating the international actions necessary to reduce air pollution that maritime vessels cause to communities near the coasts. This report presents the results of this trilateral collaboration to quantify the impact of the ratification of Annex VI to the MARPOL Convention and the establishment of a Mexico Emissions Control Zone (ECZ).<sup>67</sup>

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<sup>67</sup> <http://www3.cec.org/islandora/en/item/11787-reduccion-de-emisiones-generadas-por-el-movimiento-de-bienes-en-el-transporte-es.pdf>