

## PP-1 on a glimpse:

### Six (6) participating countries:

- 📍 Colombia
- 📍 Ecuador
- 📍 Honduras
- 📍 Mexico
- 📍 Panama
- 📍 Peru

### Stakeholders engaged:

- ◆ Maritime Administrations
- ◆ Government Institutions
- ◆ National Policymakers
- ◆ Ship Owners / Operators
- ◆ Port Authorities / Operators
- ◆ Maritime Training Centers / Institutions
- ◆ Recognized Organizations
- ◆ Maritime Fuel Suppliers
- ◆ Shipyards / Dry Docks



**82 ships** (over 500GT) provided details on the energy efficient measures implemented onboard.

### Energy Efficient Measures assessed:

#### **a. Mature technology**

- Hull Coating
- Autopilot
- Weather Routing

#### **b. Semi-mature technology**

- Trim/Draft Optimization
- Speed management
- Hull Air Lubrication
- Waste Heat Recovery

#### **c. Non-mature technology**

- Solar Electricity
- Wind Power

## Dissemination activities:

The Pilot Project 1, aims at analyzing the particular situations of the subjects being studied in particular the regional dimension of the relevant barriers and draw lessons learned. Furthermore, this pilot project compares results, lessons learned and recommendations, and incorporates them into the dissemination material and activities, organized by the MTCC Latin America in the region.

### **Dissemination activities of Pilot Project 1 results were conducted throughout the project's implementation to build and maintain interest and engagement of the stakeholders:**

- > through the National Workshops, for effectively communicating the results, lessons and experiences learned
- > through other means: dedicated website, newsletter, social media presence, email communications etc.
- > through personal meetings/interactions with participants, to return an output of the results

### **Capacity Building Workshops:**

The MTCC Latin America organized and participated in one (1) Regional Workshop and four (4) National Workshops:

#### **(1) First Regional Workshop**

13th-15th March 2018, Panama City, Panama

#### **(2) First National Workshop**

13th-15th June 2018, Panama City, Panama

#### **(3) Second National Workshop**

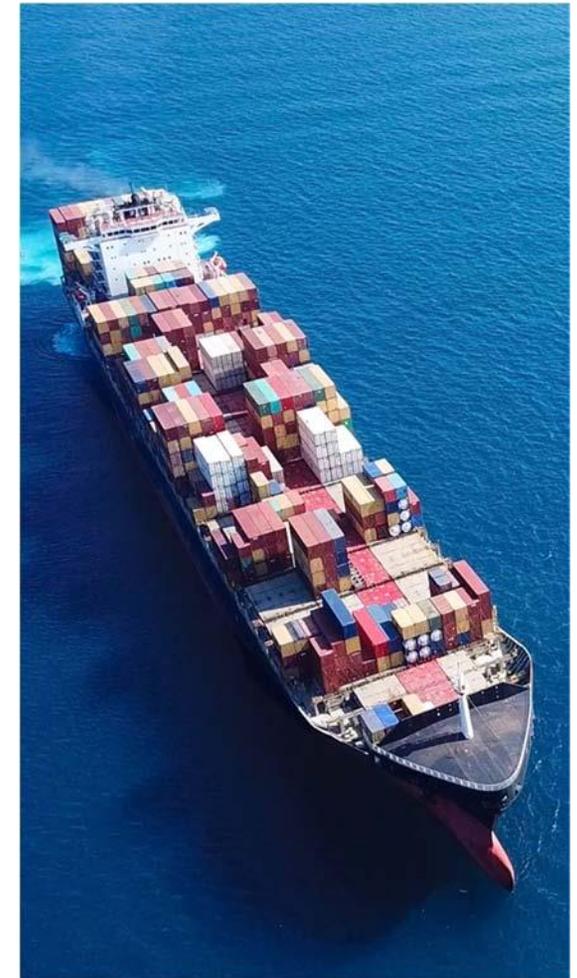
22nd-24th August 2018, Cartagena, Colombia

#### **(4) Third National Workshop**

14th-16th November 2018, Lima, Peru

#### **(5) Fourth National Workshop**

13th-15th March 2019, Mexico City, Mexico



## Pilot Project 1:

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

(Barriers and Constraints Examination)



**MTCC LATIN AMERICA**  
Maritime Technology Cooperation Centre



## About the Project

The MTCC Latin America Pilot Project 1 “Uptake of Ship Energy Efficient Technologies and Operations”, aims at utilizing the existing IMO regulation on ship energy efficient technologies and operations as a starting point, for examining the barriers and constraints faced by regional ship owners and operators when implementing or planning to implement such provisions and moving towards low carbon shipping.

The project’s general objective is strengthening the uptake of ship energy efficient technologies and operations by better understanding the barriers and constraints experienced by relevant stakeholders in the Latin American region, by making recommendations to policy-makers and competent administrations on actions to overcome these issues, and by disseminating the outcomes of this pilot project.

The project combines thorough literature review, detailed targeted research on stakeholders views and assessment of energy efficient measures implemented onboard ships operated by ship operators based in the region.

## Methodology

The methodology followed for was carefully designed and planned, to cover all stakeholders views and considerations as well as all aspects of the research subject, and comprises:

- (1) **Literature review** on the nature and status of barriers and constraints;
- (2) **Identification of the key stakeholders** acting actively in the implementation of strategies for the uptake of ships energy efficient technologies and operations and categorization based on their actual role;
- (3) **Selection of six (6) Latin American countries to form part of this study**, taking into account their total fleet and availability of vessels of 500GT and over that need to apply ship energy efficient provisions (3 signatory & 3 non-signatory) to MARPOL Annex VI, in order to ensure representative results and reliable conclusions;
- (4) **Development of comprehensive questionnaires addressing each category of stakeholders** separately, for gathering of data and information on the research subject;
- (5) **Application and completion of questionnaires** by the key stakeholders for collection of data;
- (6) **Qualitative and quantitative analysis** of data collected during this pilot project;
- (7) **Report on the findings of the project** together with description of methodologies used;
- (8) **Preparation of material and dissemination activities of project results** throughout the project’s implementation to build interest and engage stakeholders.

## PP-1 Results:

### Opportunities and strengths detected:

#### ***-Dialogue and development space***

The MTCC project has become an important forum for discussion and an enabling agent for development among the agencies involved in the study, at the regional level. Synergies have been established and strengthened resulting in higher and more effective performance among the intervening countries.

#### ***-Detection of training needs***

The training of maritime administrations and authorities in the region has been achieved through the various national and regional forums, facilitated by the Centre. From this academic exercise has emerged the initiative to launch a prostrate program with specialization in Energy Efficiency in the Shipping Industry.

### Obstacles or limitations detected:

#### ***-Plurality of maritime competences***

Different authorities share maritime competences ie civil authorities share responsibilities with armed forces units, with a thin dividing line between their respective jurisdictions that sometimes overlap, making it difficult to implement international standards, as is the specific case of the MARPOL Convention.

#### ***-Lack of effective coordination between governmental entities***

There is a perceived gap between the authorities called to tackle the climate change problem on the ground and those that must address it from the perspective of the maritime industry, without taking into account that, in the face of such a global problem, actions can not be taken on a sectorized manner.

#### ***-A strong state bureaucracy***

The country-specific legal guidelines sometimes make it difficult to adopt international standards aimed at mitigating and addressing the problem of climate change. The lack of uniformity of criteria between the executive and the legislature slows the efforts of maritime administrations that have been working on the ratification of instruments such as Annex VI to the MARPOL Convention. From a technical point of view, everyone is aware of the need to take concrete measures to tackle the problem, however, these measures cannot be implemented without proper legal legitimacy.