



# MARITIME TECHNOLOGY COOPERATION CENTRE IN THE PACIFIC (MTCC-PACIFIC)

CAPACITY BUILDING FOR CLIMATE MITIGATION IN THE MARITIME SHIPPING INDUSTRY  
THE GLOBAL MTCC NETWORK (GMN) PROJECT

## Vanuatu Virtual National Workshop for Domestic Ship Operators on MARPOL Annex VI

12<sup>th</sup> November 2020



HOST INSTITUTIONS  
OF MTCC-PACIFIC



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# Table of Contents

EXECUTIVE SUMMARY.....	1
VIRTUAL NATIONAL WORKSHOP .....	3
1. Brief Opening Remarks .....	3
2. Recap of Vanuatu National Workshop Outcome.....	3
3. MTCC Pacific Project Updates.....	3
4. Safety Management System .....	4
5. MARPOL Annex VI- Chapter 4 SEEMP.....	4
6. MARPOL Annex VI- Chapter 4 EEOI .....	4
7. Sulphur Cap.....	4
8. Vanuatu SMS and data dad collection update.....	4
9. Tiwi Trader Pilot Project Update.....	5
10. Update from Vanuatu Women in Maritime Association .....	5
11. Discussions.....	5
12. Outcome, Takeaways and Conclusion .....	5
ANNEXES.....	6

## List of Annexes

- 1 List of Participants
- 2 Agenda
- 3 Presentations
- 4 Evaluation analysis
- 5 Photos
- 6 Communications and Visibility Activities

## EXECUTIVE SUMMARY

The second follow up National Workshop for Domestic Ship Operators on MARPOL Annex VI was held virtually by the MTCC-Pacific staffs based out in Suva, Fiji and Vanuatu maritime stakeholders at the Melanesian Hotel in Port Vila, Vanuatu on 12<sup>th</sup> November 2020. The meetings were attended by representatives from the newly established Office of Maritime Regulator (OMR), Ports and Marine, Ministry of Infrastructure and Public, South Sea Shipping, Ocean Logistics, Touraken Shipping, LC Tiwi Trader, Tuna Fishing Limited, Vanuatu Ferry Shipping Limited and Vanuatu Women in Maritime Association. Altogether there were 12 male and 9 female workshop participants who attended the workshop. The MTCC-Pacific organized catering and venue for the NW participants who are attending the workshop in Port Vila, Vanuatu. The list of NW participants is attached in Annex 1.

The purpose of the virtual workshop was to recall the first national workshop outcome, provide an update of the MTCC-Pacific project on the solar PV system onboard Tiwi Trader and provide information to the participants on some of the progressive technical tools to progress toward energy efficient operations of ships including the knowledge of the benefits of MARPOL Annex VI with particular attention to Sulphur Cap limits. The national workshop agenda is attached in Annex 2.

The virtual workshop was held in two parts; the first sessions consisted of MTCC – Pacific presenting via zoom on the recap of the Vanuatu first National Workshop outcome, overall concept of Safety Management System, MARPOL Annex VI, Chapter 4 on Ship Energy Efficiency Management Plan (SEEMP), MARPOL Annex VI, Chapter 4 on Energy Efficiency Operational Indicator (EEOI) and the benefits and knowledges of MARPOL Annex VI specifically in regard to Sulphur Cap. The second part consisted of the update from the Tiwi Trader Pilot Project Update; data collection challenge. A progressive update from the Vanuatu Women in Maritime Association including an official handover ceremony of the outgoing Chairperson to the new incoming Chairperson with the executive committee members was witness by the participants.

The second National Virtual Workshop on MARPOL Annex VI ended with discussions related to the specifics of both the SEEMP and EEOI implementation together with the continuity of the MTCC-Pacific project where most ship owners and operators are showing interest in integrating the solar PV system onboard their vessels to reduce both the operational costs and Greenhouse Gas emissions. Workshop participants commend on the MTCC-Pacific for engaging such an innovative project in Vanuatu and also pledge their full support in future collaborations with the MTCC-Pacific and also nationally to ensure a reduction of GHG emissions from the maritime sector.

All Workshop presentations are attached in Annex 3 in consecutive order as outlined in the Agenda.

## INTRODUCTION

The International Maritime Organization (IMO) through the MARPOL Convention has set international rules and guidelines for the reduction of Greenhouse Gas emissions from the maritime and shipping sector. This led to the recent integration of Annex VI to the MARPOL Convention which deals particularly with the maritime GHG emissions. Operation tools that the MARPOL Annex VI uses in order to regulate and reduce global maritime GHG emissions include the Ship Energy Efficiency Management Plan (SEEMP) together with the Energy Efficiency Design Index (EEDI) and the Energy Efficiency Operational Index (EEOI). An understanding of what SEEMP and EEOI forms the basis for its smooth implementation where ship owners and ship operators can integrate and apply these technical tools in order to cut operational costs while at the same time emitting less GHG into the atmosphere.

The second follow-up workshop was carried out virtually to refresh the maritime stakeholders knowledge on the specific details of MARPOL Annex VI which includes in particular the SEEMP and EEOI implementation as two of the major instruments for the reduction of GHG emissions in the maritime sector. The workshop forms part of the MTCC-Pacific deliverables.

The Workshop begins with an opening remark and welcome from the Office of the Maritime Regulator (OMR) in Vanuatu followed by presentations from MTCC-Pacific office and other joint presentation between OMR and MTCC-Pacific. As per the workshop agenda, the main workshop presentation covers the following: Recap of Vanuatu first National Workshop, MTCC-Pacific Project, Safety Management System , MARPOL Annex VI – SEEMP, MARPOL Annex VI – EEOI, Sulphur Cap, Vanuatu SMS and Data Collection Update, Tiwi Trader Pilot Project Update and Update from Vanuatu Woman in Maritime Association.

This ultimately fulfils the vision of the by International Maritime Organization (IMO) implemented and European Union (EU) funded Global MTCC Network (GMN) for climate change mitigation established to assist the maritime transport sector of small island developing states (SIDS) and least developed countries (LDC).

Several tweets/retweets and posts/re-posts were also sent out on social media. Attached in Annex 5 are examples of communication and visibility activities that took place during the workshop.

## VIRTUAL NATIONAL WORKSHOP

The following are the NW presentations presented by the three MTCC-Pacific trainers and the Maritime Affairs Team Leader as per the Agenda:

### 1. Brief Opening Remarks

The workshop was opened by a word of prayer and followed by brief administration remarks including format of presenting and participation by Ms. Mary Navaika, the Finance and Administration Manager for Office Maritime Regulator (OMR) noting that this was first virtual workshop. Ms. Seiloni the Compliance Officer at OMR informed the workshop that Vanuatu had confirmed its first COVID-19 case, and this had affected the attendance of some of the confirmed participants.

Mr. Lloyd Fikiasi, the Legal Officer provided the brief opening remarks on behalf of the Office of the Maritime Regulator, expressed his gratitude on the continuous support and capacity building by the SPC and MTCC Pacific Team. Further expressed his gratitude to the domestic ships operators for taking time to attend the workshop to learn and share ideas and knowledges in relation to the shipping industry combating the challenges of climate changes.

### 2. Recap of Vanuatu National Workshop Outcome

The Head of the MTCC Pacific recalled the first national workshop held in March 2018 in Port Villa and draw attention to the Workshop Outcome Document in particular on energy efficient operations. The Head of MTCC-Pacific also acknowledge the OMR and ship owners and operators for their continued role in ensuring domestic ship safety and for their efforts in implementing SOPs and SEEMP onboard their vessels. The Paris Agreement and importance of implementing the Nationally Determined Contributions (NDCs) as part of each country's effort to reduce and mitigate GHG emissions was also highlighted during the recap. The progress of MTCC-Pacific was also highlighted during this presentation where the various regional activities and workshops that were delivered such as the National Workshops and the solar PV system projects and Port energy audits were discussed in brief. The future of MTCC-Pacific was also discussed in brief where the participants were informed of the recent extension that will end in March 2021 and the possibilities its continued operations beyond the year 2021.

Recalling the commitment made under the section agreed by participants.

### 3. MTCC Pacific Project Updates

The presentation provided a snapshot of the progressive pilot projects in Vanuatu and Samoa. The projects demonstrate the application of maritime solar energy in PICTs vessels with the view of reducing greenhouse gas emissions and progress low-carbon development in the Pacific maritime transport.

The following discussions were noted:

- Process involved in identified technology and the measures chosen for the vessel in Vanuatu
- Collection of fuel oil data from the vessels to inform quality analysis and pay back savings
- Reiterating that the MTCC Pacific will come to a closure in March 2021 however, MTCC Pacific is looking at viable opportunities with other development partners to continue similar project activity.
- Criteria employed in identifying vessels to be considered for the pilot project rested largely on effective implementation of the Safe Operation Plan (SOP), consistence data collection and a practical on-board assessment of ships operations including prevention maintenance plan and documentation.

- Process engaged in the installation of Proper Boss Fin Cap (PBFC) that is considered as energy efficiency technology, however the challenge remains of acquiring the ships drawings, propeller offset table in most ships operating in the country do not have this due to lack of proper record keeping and storage management practices. The PBCF is not an off the shelf technology.

#### 4. Safety Management System

The Safety Management System (SMS) is a systematic approach to managing safety on board a vessel and where all domestic vessels must have to ensure the safety of vessels and the people on board. The presentation on Safety Management System (SMS) goes in conjunction with the Pacific Islands Domestic Ship Safety (PIDSS) programme. The presentation provided a brief background information of the Pacific Islands Domestic Ship Safety Programme (PIDSS), the components or areas of focus that make up this programme, brief overview of the SMS and, Safe Operational Plan (SOP) advocated in the PIDSS Programme, and Progress of PIDSS in Vanuatu.

The following discussions were noted:

- Role of auditing the safety management system and how it is conducted,
- The overall shipping companies and/or vessels that have drafted their SOPs and those that have not,
- The role of OMR in ensuring that shipping companies have a SOPs onboard and to carry out audits if the need arises, and
- The need for each vessel to have its own SOP so to ensure an effective SMS.

#### 5. MARPOL Annex VI- Chapter 4 SEEMP

The presentation provides a general snapshot of SEEMP Guidelines (MEPC 213 (63), main Elements and Components of SEEMP, and the implementation aspects of SEEMP. It reinforces the importance of the planning phase of SEEMP and the continual improvement nature of SEEMP that is similar to that of the Plan, Do, Check, Act (PDCA) cycle.

#### 6. MARPOL Annex VI- Chapter 4 EEOI

The presentation provided a brief overview of EEOI Guidelines (MEPC 1/ Circ. 684) and calculations.

#### 7. Sulphur Cap

The presentation provided brief overview of IMO's role in taking bold action to clean up shipping emissions from reducing the Sulphur content in ships fuel oil, Legal Framework in terms of regulation, enforcement and compliance,

Cost and Benefits; Barriers/ Actions for Implementation (Implementation (Flag State and Port State Control; Ship Implementation Plan (SIP) and the Capacity building support from MTCC Pacific.

#### 8. Vanuatu SMS and data collection update

This presentation was complemented with the presentation on Safety Management System. The consistency of fuel consumption data was also discussed in that workshop session where the unreported fuel consumption data was highlighted brought into the attention of the shipowners and ship operators.

## 9. Tiwi Trader Pilot Project Update

This presentation was co-presented by MTCC Pacific and the pilot project ship owner. This provided personal experience and illustrated the value of participating in the project.

## 10. Update from Vanuatu Women in Maritime Association

This presentation provided the progress and update of Vanuatu Women In Maritime Association. Followed by the official handover from the outgoing and incoming new Chairperson and Executive Committee.

## 11. Discussions

Discussions that came about after the workshop are mainly from the Office of the Maritime Regulator in Vanuatu and from the ship owners and ship operators. These discussions are outlined below:

### OMR:

Main questions from the OMR office were related to the SOP audits where they were enquiring if they should be the institution responsible for the audits or should MTCC-Pacific be the responsible and accredited institution to carry out audits. This question came about as a response to the border closure that hinders MTCC-Pacific staff's physical presence in carrying out the audits.

### Ship Owners and Ship Operators:

The main questions from shipowners were related to the SOPs and SEEMP templates. Other questions were related to the extension of the MTCC-Pacific project and the possibilities of benefiting from the solar PV system project that was implemented on the vessel Tiwi Trader.

## 12. Outcomes, Takeaways and Conclusion

The main outcomes and takeaways from the workshop were that workshop participants:

- Have a background and working knowledge of the MARPOL Annex VI.
- Have a background understanding of SEEMP and EEOI.
- Know the importance of SOPs and alternative energy sources e.g., solar PV system that can be used to increase business efficiency while decrease costs incurred using fossil fuel as the main fuel.
- Are introduced to the fuel consumption template and the need to collect fuel consumption data to help quantify Carbon Dioxide levels in the atmosphere and adhere to NDCs in the maritime sector.
- Get to know the new executive members of the Vanuatu Women in Maritime Association for further collaboration in the maritime sector, and
- Got introduced to the virtual workshops which can become the norm if the covid-19 situation is prolonged.

The workshop participants were satisfied with the workshop presentations and discussions and this was reflected in the Q&A and discussions after the workshop. The workshop participants were introduced to the idea and need of implementing SEEMP and EEOI and further appreciate the combined efforts through the Nationally Determined Contributions (NDCs) to achieve the outcomes of the Paris Agreement. The workshop ended with a broader outlook from the maritime sector into the global industry at large and the need to decrease GHG emissions into the atmosphere in order to sustain life on earth and specially to safeguards the livelihoods of Pacific Islanders in their current highly vulnerable state to the impacts of global climate change.

## ANNEXES

Annex 1 – List of Participants

Annex 2 – Agenda

Annex 3 – NW Presentations

Annex 4 - Evaluation Analysis

Annex 5 – Photos

Annex 6- Communication and Visibility