



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

FORTH MTCC-PACIFIC STEERING COMMITTEE MEETING
Suva, Fiji
1 May 2019



HOST INSTITUTIONS
OF MTCC-PACIFIC



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INTRODUCTION

The third MTCC-Pacific Steering Committee (SC) was held on 1 May 2019 in Suva Fiji. It was attended by the following members: representatives from Fiji Ministry of Infrastructure and Transport; Ministry of Works, Transport and Infrastructure of Samoa; Ministry of Infrastructure Development of Solomon Islands; Delegation of the European Union for the Pacific; Pacific Islands Development Forum (PIDF); Pacific Islands Forum Secretariat (PIFS); Secretariat of the Pacific Regional Environment Programme (SPREP); the University of the South Pacific (USP); Uto ni Yalo; and Japan International Cooperation Agency (JICA).

The meeting was chaired by Ms. Lesi Vuatalevu, Acting Director Transport, Ministry of Infrastructure and Transport

1. WELCOME ADDRESS & ADOPTION OF THE AGENDA

(Lesi Vuatalevu, Acting Director Transport, Ministry of Infrastructure and Transport, Fiji)

The Chair welcomed all Steering Committee members and requested review and adoption of the previous steering committee meeting minutes. After presentation of the previous meeting report, the proposed agenda for this meeting was submitted to members for adoption. The previous meeting minutes and agenda for this meeting were adopted.

2. GREEN PACIFIC PORT (GPP) INITIATIVE UPDATE

(Thierry Nervale, Deputy Director, Ocean and Maritime Programme – MTCC-Pacific, SPC)

SPC provided an update on the GPP initiative based on the following.

i. GPP Concept and Capacity Building Activities

The GPP initiative has three focus areas with its capacity building activities and technical assistance as outlined below:

a) Operation: improving port operations efficiency through quality management; legal framework and climate resilience.

Port operators were informed on measures towards energy efficient operations.

b) Energy: Reducing port carbon footprint through energy management; port energy audits and energy conservation.

The key objective of the audit is to identify energy reduction opportunities with an aim to reduce operational costs and associated greenhouse gas emissions. It also provided guidance to Ports as to how to implement these opportunities, within the broader context of an energy management plan. Level 1 Energy audits were conducted in Solomon Islands and Tonga. In collaboration with MTCC-Pacific, Level 1 energy audits were also conducted across the 6 MTCC-Pacific target countries; with the exception of Solomon Islands that had Level 2 energy audits with GPP initiative conducting the previous Level 1 audits.

c) Environment (concept is still in process): environmental management; waste management and pollution response

ii. Results/Impacts and Lessons-learned

a) Solomon Island Ports Authority (SIPA) Baseline - Electricity Concept

A simple comparison with previous year data, indicated a reduction of 190,000kWh electricity usage which is equivalent to cost saving of \$900,000SBD and a total of **160 tonnes of GHG** emission reduction.

Lessons Learned

- Lack of awareness and importance of GHG reduction
- Energy Management not prioritised & lack of capacity
- Growing momentum for improved energy management at the Port
- Clear business case for EE is a driver for the port to implement savings measures that will both increase profits and reduce GHGe but require behavioural change
- Project second phase must focus on:
 - i) continued support to energy savings initiatives (combination of behaviour and equipment); and
 - ii) guide port to reinvest \$ savings in further energy management and avoid carbon costly reinvestment.

b) Fiji Ports Corporation Limited

- \$70,000 FJD power board installation (for power factor correction) has saved \$26,000 FJD for September which is expected to provide a total of \$300,000 FJD savings annually.

Lessons Learned

- Same lessons learned with common challenges and opportunities; In Fiji the various entities (FPCL, FSHIL and private port operator) contributing to port development and operation added difficulties as there needs to be adopted common objectives while diverging interests and priorities.

iii. Discussion

- Samoa is now in the bid towards its GPP initiative in their main port and is engaging with ADB to explore different concepts and designs, which will also include the best practices from Fiji and Solomon Islands. MTCC-Pacific conducted energy audits of Samoa ports in August 2017 and hence has the baseline and list of recommend measures to reduce energy consumption. Similar work is being developed for Tonga and could be used as a guide for Samoa to develop quality management systems.
- With respect to government or tax incentives in Samoa, there is an existing Samoa Ports Strategic Plan that incorporates the GPP concept. Energy targets are set in the Energy Plan Strategic Framework and it is a matter of implementation plan which will be carried out in phases. Samoa's energy efficiency target is for the electricity sector to be 100% renewable in 2030.
- With respect to shipping incentives to vessels that will enter green ports, there is no dialogue on this yet; however, the call must come from the government.
- The objective of the Solomon Islands port authority is to have Noro port carbon free i.e. fully operated by renewable energy by 2030. Carbon free meaning with port operations and not with banning fueled vessels from entering.

3. MTCC-PACIFIC UPDATE

(Dr M.A.Zullah, Maritime Industry Energy Efficiency Adviser, Ocean and Maritime Programme – MTCC-Pacific, SPC)

i. Capacity Building Activities and Technical Assistance

National workshops were conducted across the 7 MTCC-Pacific target countries (Fiji, Kiribati, RMI, Samoa, Solomon Islands, Tuvalu and Vanuatu) where ship and port operators were informed on measures towards energy efficient operations and provided capacity building in the areas of ship energy efficiency operations, operational measures, ship energy efficiency management plan and data collection.

ii. Data Collection

After a series of energy efficient operations of vessels trainings onboard vessels, 9 vessels have been providing fuel oil consumption data across the 6 target countries (Fiji, Kiribati, Samoa, Solomon Islands,

Tuvalu and Vanuatu). There is still gaps in fuel oil consumption data collected and assistance are provided to develop capacity for proper data collection method.

iii. Ship Energy Efficiency Management Plan

For the targeted countries, MTCC-Pacific has introduced Standards Operating Procedures (SOP) integrated with the Ship Energy Efficiency Management Plan (SEEMP) in in all the targeted countries. This provides an opportunity for MTCC-Pacific to conduct compliance assessment together with SOP on the implementation rate and further improve the efficiency in consideration with the highest safety levels. The SEEMP document forms the part of the SOP checklist which will be referred to on a daily basis and implemented by the officer in charge. 30 SEEMPs have been effectively implemented on board vessels across the 7 target countries.

iv. Pilot Project

MTCC-Pacific anticipates to retrofit a vessel per target country with solar system. The energy collected by the solar panel array would basically be a stand-alone solar power system which will be used for lighting during steaming or at ports. Currently a landing craft vessel in Vanuatu and a cargo passenger vessel Samoa are in the process of being retrofitted with solar pv system. We also have identified a vessel in Solomon to demonstrate the sustainability of solar pv system which might happen next year provided we are able to collect qualitative data to justify the business case.

v. Examples of some champions

a. Samoa Shipping Cooperation (SSC)

SSC is the only ship operator in Samoa and one of the SSC's vessel, Lady Samoa III was chosen for the pilot project. Lady Samoa III has provided consistent fuel consumption since the pilot project was introduced in Samoa during the NW. A solar photovoltaic (PV) system with LED lighting is being designed for the MTCC-Pacific pilot project on the MV Lady Samoa III.

b. Vanuatu Ferry Limited

The project in with Vanuatu Ferry Limited will spearhead and demonstrate the feasibility of alternative solutions to fossil fuel with the view of reducing greenhouse gas emissions and progress low-carbon development in the Pacific maritime transport. The objective of the Project is to operate auxiliary engines on board the MV Vanuatu Ferry using coconut oil instead of diesel. The main objectives of the MTCC-Pacific pilot-project are to introduce and promote the use of new technologies and operations on board vessels; and to collect and report data on fuel oil consumption.

c. Vanuatu Tiwi Trader

Tiwi Trader Limited was amongst the five ship operators that attended the workshop and was the only female ship operator. The crew has been collection data LC Tiwi Trader after SEEMP was implemented. The vessel is selected to demonstrate a simple solar system that will be used for lighting, air condition during steaming and at ports. *One of MTCC-Pacific's champion is Ms. Sherley Pata, the operator of LC Tiwi Trader which is a landing craft that has been operating and servicing since 2016. As the operator, she makes sure that the procedure is followed to ensure safe functioning of ship at sea for the delivery of passenger and cargoes and for any emergency on board. "The MTCC-Pacific's programme has inspired me to put more focus on the ship energy efficiency for the benefit of my business. I will share this knowledge with my crew for them to be more vigilant with regards to operation and maintenance of the vessel"*

d. Franjti Shipping Limited (Solomon Islands)

Franjti Shipping Limited was amongst the four ship operators that attended the workshop and is the only female ship operator in Solomon Islands. It is also the only vessel that supplied data. Provided a consistant data is collected and the plan is to demonstrate a simple solar system that will be used for lighting, air condition during steaming and at ports. *Ms. Joy Rurime is the operator of MV "Florence" in Solomon*

Islands and is the first person in the Pacific region that committed to the MTCC-Pacific pilot project on fuel oil data collection. She operates a 30-years-old biggest domestic cargo vessel which is used for transportation of general cargo, and copra. She said “The workshop motivated to provide the fuel oil data collection from my vessel, as I realised that not only my business could benefit financially but also I can contribute to the greater social and environment good.”

Consistent communication and visibility efforts have been maintained around MTCC-Pacific activities and developments; giving opportunity for stakeholders to share knowledge and information on the MTCC-Pacific project initiative developments within the region.

DISCUSSION

- One of the most challenging aspect of the MTCC-Pacific project is data collection. Implementation measures is not possible without accurate and reliable fuel consumption data. Accurate information captured enables effective data collection and the formulation of correct implementation measures to reducing GHGe from vessels. Data is critical to determining the measures to undertake in consideration of the needs of the vessel. Data helps to ensure “economically justified investments”. There is no one-size fits all solution, hence data collection is critical for tailor-made implementation measures.
- Age of vessel in relation to return investment. Investments need to be economically justified. Fiji is currently facing this. There is a need to review the regulation of the age of vessels that are invested into the country.
- Bio fuel: the highest operational cost of vessel comes from fuel cost and bio-fuel could be the viable option. The pacific island region has high volume of used oil which could be converted to biofuel and used as an alternative to diesel. “Just in time” concept is also beneficial in reducing fuel consumption which requires clear communication between the vessels and ports.

4. SUSTAINABLE MOBILITY FOR COMMUNITIES IN FIJI

(Colin Philp and Dwain Qalovaki, President and Vice President of the Uto ni Yalo)

The Uto ni Yalo trust was introduced which comprises of voluntary members. On the upscale from vision to reality in the last 10 years has seen the development of low-tech canoes built from materials available locally that would assist communities in eco-tourism purposes as well as in saving fuel consumption. Objective to have built approximately 100 traditional vessels by December 2019 to distribute to the 14 provinces within Fiji. Selected youths from these 14 provinces will be trained on how to build, maintain and how to traditionally navigate these no carbon emission canoes. Villages normally take several litres of fuel for use when fishing and catches are sold in measly prices; enough to pay back the fuel price and this cycle repeats. These traditional canoes will help to address some of these issues. However, the building maintaining and traditional navigation trainings need accreditation. SPC could assist in this aspect.

Communities need to establish marine reserves in order to qualify for these vessels and vessels could assist in communities moving beyond the MPAs to fish. Further training will also be provided on minimal sizes of fishes fished.

DISCUSSION

- Most of the materials used for the canoes are locally sourced, with the exception of the mast sails that are imported.
- SPC could assist Uto ni Yalo in terms of capacity building in safety of navigation as well as in accreditation of the training on building, maintaining and sailing of these canoes.
- Uto ni Yalo is also reaching out to Tonga, Samoa and Micronesia in terms of upscaling traditional knowledge on building, maintaining and navigation of these canoes.

5. UPDATE ON AUDIO VISUAL TRAINING MODULE DEVELOPMENT GENERIC DRAFT REGULATION FOR SHIP EMERGY EFFICIENCY AND DATA COLLECTION

(Ore Toua, Maritime Training Adviser, Ocean and Maritime Programme – MTCC-Pacific, SPC & YolisaGuyau Tom'tavala, Policy & Legal Adviser, Ocean and Maritime Programme, SPC)

i. Audio-visual training module development

- Project with USP to collaborate and develop the national workshop presentations on Energy Efficient Operations of Ships into learning materials in the form of Distance Learning/Self Pace Programme via “Voiceover on PowerPoints”.
- Objective to have the materials completed and hosted on both the MTCC Pacific website & USP Global Platform to allow users (ship operators and crews) from target countries.
- Project for 4 weeks; Completion date: Friday 14th June 2019.

Project Time Frame

Activity Description	Output	Start Date	End Date
Initial Contact/Meeting	<ul style="list-style-type: none"> • Commence initial diagnostic and mapping exercise of what is needed for DLP and the use of preferred platform • Provided Session Guidance 	22 Jan 2019	22 Jan 2019
2 nd Contact/ Meeting	<ul style="list-style-type: none"> • Further mapping of what needs to be developed. • Project proposal to be drafted by USP and submitted to SPC 	18 Feb 2019	18 Feb 2019
Project Proposal by USP	<ul style="list-style-type: none"> • Review and discussion of proposal • Video recording and editing – Narration, recording or presentation (16 set of presentations in accordance with the N/W Agenda & Session Guidance) • On average each session is 30-45mins max 	29 April 2019	29 April 2019
Develop Implementation (IA) Agreement & Terms of Reference (ToR)	<ul style="list-style-type: none"> • Submission of IA & TOR 	1 st May 2019	1 st May 2019
	<ul style="list-style-type: none"> • Signing of IA 	10 th May 2019	10 th May 2019
Project Phase 1	<ul style="list-style-type: none"> • Develop instructional plans and learning outcomes 	3 rd June 2019	3 rd June 2019
Project Phase 2	<ul style="list-style-type: none"> • Develop instructional materials (narration, instructions – supplied by SPC) 	4 th June 2019	12 th June 2019
	<ul style="list-style-type: none"> • Conduct a trial mock run (using one module) 	13 th June 2019	13 th June 2019
	<ul style="list-style-type: none"> • Produce final project report 	14 th June 2019	14 th June 2019

ii. Generic draft regulation

The generic working draft of regulations developed by SPC as a resource materials that PICs may use to update their marine pollution prevention laws to:

- Implement recent obligations that IMO has adopted related to control of air pollution by convention-sized ships; &
- Support complimentary initiatives for non-convention ships.

There is a need for draft regulations to:

- Template of *Marine Pollution Prevention Act 2014* only incorporates by reference 2008 & 2011 MEPC resolutions related to controls over air pollution by ships;
- Does not cater for data collection system for fuel oil consumption of ships as per resolution [MEPC.278\(70\)](#) of 2016;
- Details & forms of certificates for energy efficiency & data collection systems for convention sized-ships; &
- Applicability to domestic ships.

DISCUSSION

- With training, vessel operators are able to engage and implement the trainings to their respective work and ideally become champions. In terms of the impact of the usage of the knowledge, there have been cases where current champions of MTCC were made away of the ship energy efficiency when they participated at the MTCC-Pacific national workshops.
- Currently vessel operators are providing data on a voluntary basis. Regulation cannot be implemented until the respective countries of these vessel operators make a call for this.

6. MCST PROGRESS UPDATE AND PROJECT ON STRENGTHENING THE SHIPPING HIGH AMBITION COALITION (SHAC) THROUGH PACIFIC ISLAND STATES EFFECTIVE PARTICIPATION IN IMO MEETINGS

(Michael Traut, Director, Micronesia Centre for Sustainable Transport, USP)

The Micronesia Center for Sustainable Transport (MCST) is a unique program and approach to addressing the need for Pacific states to transition to low carbon transport pathways. The MCST Framework sets out a structured fifteen-year program to achieve this by first aiming to achieve such transition in one country, Marshall Islands, and then use this as a catalyst to cascade successful results to neighboring states and outward through the region. Some of the MCST's project are

1. Cerulean Project with private partner Swire Shipping - the aim of the project is to define a Pacific islands trading route, and a low carbon cargo ship design; and to develop a business case, encompassing both to that the vessel can be built and commercially operated in phase II of the project.
2. In project TLCSeaT, with partners WAM, GIZ, and Hochschule Emden-Leer, there is a twin focus on intra-lagoon transport and on inter-island transport. Both have gathered significant momentum, with a plan for a boatbuilding workshop later this year.

MCST are also working to facilitate better transport links for delivering health care services to outer islands in the RMI. In the short to medium term, MCST have provided its technical support and expertise for the proposed Floating Health Care Clinic (FHCC) programme between RMI Ministry of Health and NGO Sea Mercy.

In the project 'Strengthening SHAC', the Shipping High Ambition Coalition, MCST provides technical support to Pacific delegates taking part—also funded through the same project—at climate policy summits at the International Maritime Organization in London. Back to back, week-long meetings were held in the first two weeks of May, with a strong contingent from the Pacific. How effective shipping's climate policy turns out to be remains to be seen, but kudos was given to the Pacific for making its important voice heard.

DISCUSSION

EU stressed the importance of strengthening collaboration and active participation of all MTCC-Pacific stakeholders; particularly the countries with MTCC-Pacific and MTCC-Pacific with its partners, PIDF in particular. For EU it is important to work with MTCC-Pacific supporting the countries. EU needs the support of representatives in this group with respect to the delegation that will be travelling to Brussels for the Shipping High Ambition Coalition (SHAC). There will be three sessions in London (2019 to mid-2020) attended by 15 Pacific Delegates that will need the support from its stakeholders, one of which is the MTCC-Pacific Steering Committee. MTCC-Pacific confirmed that they can support this programme if technical expertise is needed either at IMO or during the consultation process in the Pacific.

7. 2ND MTCC-PACIFIC REGIONAL CONFERENCE UPDATE AND 3RD PACIFIC REGIONAL ENERGY AND TRANSPORT MINISTERS' MEETING

(Thierry Nervale, Deputy Director, Ocean and Maritime Programme, SPC)

The agenda for the week was shared with the group. Meeting invitation will be circulated at around July 2019 to coincide with the visit of the IMO Secretary General to the Pacific (Vanuatu and Fiji). The ministers

meeting will be again a joint meeting of energy and transport officials; and this would be a week-long event; where 2 days will be dedicated to the 2nd MTCC-Pacific Regional Workshop and 3 days would be

Time	Monday 16	Tuesday 17	Wednesday 18		Thursday 19	Friday 20
	2nd MTCC-Pacific Regional Workshop		Pacific Regional Energy & Transport Ministers' and Officials' Meetings			
0830-0900	Registration		Registration			Ministers' Communique Drafting Committee
0900-1000	Official Opening of the 2 nd MTCC-Pacific Regional Workshop and Energy & Transport Officials' Meeting	Workshop agenda	Official Opening & Traditional Ceremony of the 4 th Pacific Regional Energy & Transport Ministers' Meeting		Energy Ministers' Meeting	
1000-1030	Morning tea & Official Photograph	Morning tea	Morning tea & Official Photograph		Morning tea	Morning tea
1030-1200	Workshop agenda	Workshop agenda	Transport Officials' Meeting	Energy Officials' Meeting	Energy Ministers' Meeting	Discussion and signing of the 4 th Pacific Regional Energy & Transport Ministers' Communique
1200-1330	Lunch	Lunch	Lunch		Lunch	Lunch
1330-1500	Workshop agenda	Workshop agenda	Transport Officials' Meeting	Energy Officials' Meeting	Transport Ministers' Meeting	
1500-1530	Afternoon tea	Afternoon tea	Afternoon tea		Launch of the Regional Strategy for Pacific Women in Maritime Afternoon tea	Afternoon tea
1530-1630	Workshop agenda	Workshop outcome	Transport Officials' Meeting	Energy Officials' Meeting	Transport Ministers' Meeting	
1630-1700						
1700-1800		Opening of the MTCC-Pacific Branch & Cocktail	Ministers' Resolution Drafting Committee		Ministers' Communique Drafting Committee	
1800-2000			Welcome Dinner/Cocktail		Farewell Dinner/Cocktail	

the Ministers and Officials Meetings.

8. MTCC-PACIFIC PERSPECTIVE (Beyond 2019....)

SPC approach to interisland shipping in the Pacific

i. Issues affecting inter-island shipping in the Pacific:

- Lack of safety management and safety awareness (ship operators and communities)
- Inefficiency of domestic transportation systems in responding to communities needs
- Lack of accessibility to shipping services by vulnerable groups
- Lack of energy management (ship & shore)

ii. Need to rethink the approach to domestic shipping and commit as agreed in the December 2017 Regional Conference of MTCC-Pacific:

- Infrastructure development and a combination of technical and operational measures, including options such as traditional navigation for inter-island mobility of people & goods
- Need for collaboration, cooperation and partnerships from the international to regional, national and community levels

iii. *Office in Samoa – MTCC-Pacific beyond 2019...*

- Appointment of one MTCC-Pacific Officer with SPREP:
 - ✓ Establishment of an office of MTCC-Pacific
 - ✓ MTCC-Pacific to benefit more from SPREP expertise (Environmental Governance & Climate Change)

iv. 2nd Regional Workshop in Samoa from 16-20 September 2019

- Collaboration with JICA (deployment of a port expert with MTCC-Pacific)
- Collaboration in Marshall Islands:
 - with MCST for research (definition of work areas for pacific sustainable sea transport and key activities)
 - with GIZ to complement activities on board MISC vessels (signing of a LoA)

v. International framework

- IMO Trust Fund for initiatives supporting the IMO initial strategy to reduce GHG emissions from ships
- Extension of the current project in 2020
- Development of programmes 2020-2025 and continued funding for GMN-MTCCs ongoing.

DISCUSSION & CLOSING

- MTCC-Pacific Steering Committee membership is not restricted and is open to interested members.
- 5th steering committee meeting, possibly at the Ministerial event in September or in November before closing the current project