PACIFIC TECHNICAL OFFICERS’ WORKSHOP ON SHIPPING EMISSIONS REDUCTION REPORT

7th – 9th February, 2018 Suva, Republic of Fiji
Domestic shipping in the Pacific faces a number of complex issues, ranging from political and commercial pressures to ineffective emissions compliance and enforcement. The shipping industry can only operate effectively and deliver affordable, reliable, safe and clean services if international regulations and standards are adopted and implemented. As a specialised agency of the United Nations, IMO is the global standard-setting authority for the safety, security and environmental performance of international shipping. Its main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and implemented.

The Government of France, through its partnership agreement with the Government of Fiji, secured the expert services of the Pacific Islands Development Forum (PIDF), Maritime Safety Authority of Fiji, University of the South Pacific (USP), and University College of London (UCL) to coordinate and conduct this workshop to support France’s efforts in the Pacific. PIDF, through Fiji’s Ministry of Infrastructure and Transport, organised this workshop in an effort to prepare Pacific delegations towards developing a strategic IMO roadmap to address the reduction of maritime greenhouse gas emissions. This workshop provided a comprehensive overview of the relevant debates and outcomes of MEPC 68 to 71, insights on emissions strategy development from MEPC 73 to 78, drafting of IMO technical submissions and served as a platform to commence discussions on the next steps leading to MEPC72 and on the Pacific’s issues and position.
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The Fiji Government, with the support of the French Government, hosted a workshop for seven Pacific Island International Maritime Organisation (IMO) member States\(^1\) to enable their respective technical officers to plan and strategise for the forthcoming April 2018 IMO meetings on GHG emissions reduction. The workshop was facilitated by Pacific Islands Development Forum (PIDF) with technical support from the Micronesian Center for Sustainable Transport (MCST) of the University of the South Pacific (USP) and the Energy Institute of University College London (UCL).

The first day provided an open forum to hear and discuss the latest scientific information on international shipping emissions, an overview of the IMO Roadmap and updates on initiatives in the region. The remainder of the workshop was held in closed session to allow the government representatives to caucus and discuss the forthcoming IMO meetings and workload, and Pacific co-sponsorship of submissions to the next IMO meetings, recognising that the IMO process requires this to be confidential.

The workshop participants requested that PIDF prepare a report summarising the workshop proceedings (this report) including a series of recommendations from the workshop that will require follow up by both the respective Pacific Island States and the supporting organisations (PIDF, USP, etc.). These recommendations are provided below, followed by a summary of the key matters presented on and discussed during the workshop and more detailed session notes.


A list of participants is provided in the Annex to this report.

### 2. RECOMMENDATIONS

**Institutional Strengthening and Capacity Building**

- Pacific “buddy” IMO members\(^2\) to request information from their respective buddies on relevant courses and scholarships available with USP’s assistance.
- Pacific IMO members to consider their respective capacity and training needs and report back to USP.
- Pacific IMO members to identify existing capacity in regards to shipping GHG emissions, needs, gaps and for PIDF and USP to undertake a Needs & Gap Analysis to identify how those gaps may be filled.
- USP to consider developing an open access online short course for Pacific government staff on shipping GHG emissions with other relevant international academies/agencies.
- USP to provide information on existing courses and support that are available to Pacific IMO members.

**Networking/Outreach**

- Establish an email group of Pacific officials involved in IMO GHG emissions related work (similar to the existing SHAC\(^3\) email group) as a means of keeping informed and progressing discussions on IMO GHG emissions matters (e.g. development of measures, assessing impacts on States, compensatory mechanisms to address any disproportionate impact on P-SIDS, monitoring and reporting).
- PIDF to host an annual technical officers workshop on GHG emissions from shipping and broaden participation to include all Pacific IMO member States. Such workshops would provide opportunity to discuss and review progress on reduction of shipping emissions in the region as well as strategize for negotiations at the MEPC meetings of the IMO.
- Pacific IMO member countries to agree to officially exchange and share information related to GHG emissions reductions.

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\(^1\)PIDF member Governments of Fiji, Kiribati, Marshall Islands, Solomon Islands, Tonga, Tuvalu and Vanuatu.

\(^2\)At the time of writing, this includes Fiji & France, Solomon Islands & Belgium, and Tonga & Netherlands. Other buddy agreements that are under development include Kiribati & Sweden, Marshall Islands & Germany, and Tuvalu & UK.

\(^3\)Shipping High Ambition Coalition (SHAC) refers to an informal network of IMO member States that have been collaborating on IMO GHG emissions work building on the success the ‘High Ambition Coalition’ approach used during UNFCCC processes to share information and views and to collaborate in pushing for a high level of ambition. This SHAC collaboration includes co-sponsoring of submissions on issues of common ground.
Funding

- Pacific “buddy” IMO members to continue developing relationships with their counterparts to extend/expand current bilateral agreements.

- USP to assist other Pacific IMO members to identify potential counterparts and to develop bilateral agreements to support Pacific IMO members to actively participate in IMO GHG emissions reduction Roadmap.

- All parties to continue to raise profile of this issue with donor/development partners.

- Pacific IMO members to raise with IMO Secretariat need for financial and technical support to implement Flag and Port State responsibilities resulting from IMO GHG emissions reduction strategy.

- Pacific IMO members to raise within their respective ministries, the likely workload out to 2023 and need for allocation of resources to ensure that active participation continues over time.

Advocacy

- PIDF to develop an advocacy plan identifying national and regional bodies with a role in raising awareness of the maritime transport sector and the IMO GHG emissions reduction Strategy and related work.

- Produce quarterly e-newsletter for circulation within Governments and relevant stakeholders providing information and updates on IMO work on GHG emissions reduction.

Research, Data Collection and Information Sharing

- USP to contact international academic counterparts to identify data needed to enable assessment of impacts on States and to circulate this list of data needs.

- Member States to identify existing data that may meet these data needs.

- Pacific “buddies” to ask their buddy counterparts to assist in data collection, analysis and monitoring of impacts for their countries.

- USP to encourage other academic institutions to assist in data collection, analysis and research through staff and student placements/internships in the Pacific.

- PIDF/USP to liaise with SPC and other CROP+ organisations in regards to maximising sharing and alignment of data collection efforts.

4 CROP+ refers to the established “CROP” agencies such as USP, SPC, SPREP and PIFS and other organisations in the Pacific region representing civil society e.g. PIDF, IUCN, and WWF.
3. SUMMARY OF PRESENTATIONS AND DISCUSSIONS

A summary of the matters presented on and discussed during the workshop including some key points is provided in this section. More detailed notes taken during each workshop session are provided in section 4. The slides included here are a selection taken from the various PowerPoint presentations, the full presentations being available for download at the link above.

Recent history of Pacific participation in IMO debate on GHG emissions reduction

A growing coalition of Pacific IMO member States⁵ can be credited with being instrumental in driving the IMO’s work on reducing GHG emissions from international shipping since the Marshall Islands sponsored a submission in 2016. Since that time there has been a significant shift, both within the IMO and the maritime industry more broadly, and increasing recognition that the sector will need to take action to decarbonise if it is to be in line with the temperature goal agreed by world leaders at COP21 in Paris.

The Roadmap agreed by the IMO saw the establishment of an Intersessional Working Group on GHG emissions (ISWG-GHG) tasked with the development of an Initial Strategy due for adoption by the Marine Environment Protection Committee (MEPC) in April 2018. This will then be further refined and developed prior to a Revised Strategy scheduled for adoption in 2023.

There has been a disappointing lack of progress on the text of the Initial Strategy, with IMO States still having a lot of work to do in order to reach consensus. The Chair has provided a “note” to the final ISWG-GHG scheduled for the 3-6 April, which includes a “base text” as a basis for discussion.

In the IMO the Pacific Islands coalition has repeatedly called for the sector to commit to reducing emissions consistent with keeping open the possibility of achieving no more than 1.5°C of global warming and to taking immediate actions to achieve that target. The text provided by the Chair as written is considered insufficient to achieve this.

The value of active Pacific participation in the IMO meetings has been recognised by many, but lack of participation from other Pacific IMO members (e.g. PNG, Samoa and Palau) and other SIDS and LDCs generally is still of concern. The lack of representation of SIDS and LDCs adds to the importance of continued engagement by Pacific IMO members already active, as well as outreach to other SIDS and LDCs.

Pacific participation has been facilitated to date by USP/MCST, UCL and PIDF with financial support for IMO delegate travel and accommodation from bilateral partners (France, Netherlands and Belgium) and the European Union (EU) via the Pacific Islands Forum Secretariat (PIFS) administered EDF SPRAO fund.

Key Messages from Workshop Discussion:

- Pacific IMO delegations need to be clear on what their respective governments will allow them to agree to. “Well below 2” means at least 70% decarbonisation by 2050 and “aiming for 1.5” means 100% by 2050.
- There is a big bridge to close in discussions on the Initial Strategy. 1.5°C is critical for our survival – Pacific countries need to be very clear and need support from their Capitals.
- Resources and support are needed for Pacific participation at least out to 2023.
- At a national level there is need to mobilise others from within governments, e.g. Climate Change/UNFCCC & ICAO, Economy, National Planning, Statistics as well as Foreign Affairs (particularly diplomatic corps based in London or Europe).

⁵ Fiji, Kiribati, Marshall Islands, Solomon Islands, Tonga, and Tuvalu.
Recent Pacific Timeline

- **Sep 2013**: Majuro Declaration – Climate Leadership – all actors/sectors
- **Sep 2015**: Suva Declaration – 1.5 to stay alive
- **May 2015**: MEPC 68 RMI supported by SOL, TUV & VAN submit call for IMO sectoral target
- **Dec 2015**: Paris COP21 – 1.5 to stay alive
- **Apr 2016**: MEPC 69 RMI, SOL, & TON co-sponsor international shipping to set “fair share” of GHG emissions reductions
- **Oct 2016**: MEPC 70 RMI, SOL, & TON co-sponsor international shipping to set “fair share” of GHG emissions reductions and IMO adopts Roadmap to develop GHG Strategy

Development of Initial IMO GHG Strategy:
- **Jun 2017**: 1st ISWG-GHG
- **Jul 2017**: MEPC 71 Agreed outline structure of Initial Strategy
- **Oct 2017**: 2nd ISWG-GHG
- **Nov 2017**: COP 23 – IMO shipping emissions reduction side events
- **Dec 2017**: One Planet Summit & Tony De Brum Declaration

Coming up:
- **Apr 2018**: 3rd ISWG-GHG
- **Apr 2018**: MEPC 72 Adoption of Initial IMO GHG Strategy

Comparison of Levels of Ambition (prepared by Japan)
Latest Science on International Shipping emissions and Paris Temperature Goal

To answer the question as to what is needed to keep open the possibility of achieving 1.5, we need to understand the nature of GHG emissions from international shipping. This can be described by the route (geographic areas emitting the most), by ship type (type of ships emitting the most). Geographically shipping between and within the EU generates the most emissions whereas emissions associated with SIDS are very small. For some countries trade in a particular commodity results in the majority of emissions (e.g. bulk carrier trade between Brazil and China). This is important to note as IMO policy that targets all ships regardless of type and route may be ineffective.

The relationship between international shipping and world trade is critical. If world trade is increasing then we will also see a net increase in emissions, which is clearly unacceptable from a climate change point of view. This relationship can be seen in the significant drop in shipping emissions due to ships slowing down in response to the 2007/08 financial crisis. This gives confidence that emissions reduction is possible.

If shipping’s share of emissions is based on the current percentage of global totals (i.e. around 2-3%) then this equates to a total budget of 18 Gigatonnes of CO₂ left for international shipping. Obviously the sooner the sector starts to decarbonise then the more time for that budget to be used up. Conversely the longer decarbonisation is put off, the more CO₂ will be used up and the more drastic the transition to non fossil fuels. (i.e. you can grow emissions for the next five years but crash stop use of fossil fuels in 2030).

To have a 50% chance of keeping below 1.5°C, international shipping needs to start decarbonisation as soon as possible and reach zero emissions by 2050.

If IMO members agree that there are arguments for shipping not to contribute a “fair share” because of the links with world trade and development, then emissions reductions will have to be borne by others. Others may argue that it is not technically feasible to achieve decarbonisation in the timeframes needed.

From a technical point of view, decarbonisation is possible and this requires alternative fuels. Key contenders being considered and trialled include ammonia and hydrogen. LNG is clearly not a long-term solution. Overall, technology costs of sectoral decarbonisation are likely small, but impacts on SIDS do need to be carefully considered. Several options have similar needs in terms of major changes to infrastructure to enable rollout globally. The basket of measures proposed in the Initial Strategy has potential to achieve the 1.5°C target if implementation is progressed and alternative fuel(s) are available.

Key Messages from Workshop Discussion:

• Options for decarbonisation domestically are also important and we need to ensure that research and development of alternative fuels also looks at options that can be used in the Pacific context (e.g. wind, solar, steam) and not just those technologies that suite large international ships serving developed country routes.

• Need to consider who is going to pay, in terms of technology and operational changes needed to shipping. Benefits need to be maximised, e.g. reducing use of fossil fuels not only addresses climate change but also results in improvement to human and environmental health from air pollutants such as SOx and NOx.

• Best solutions for the Pacific are likely to be those developed in the Pacific. Given the extremely small amount of CO₂ that Pacific shipping contributes at a global level, there is time for MCST to do the research and development to work out the best solutions for the region.

6 Important to note that SIDS data includes Singapore, which has significant impact on the emissions.
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**Top 20 CO2 emitting routes by ship type**

<table>
<thead>
<tr>
<th>Pair</th>
<th>Total CO₂ (tonnes, millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-EU</td>
<td>27.36</td>
</tr>
<tr>
<td>China-China</td>
<td>17.22</td>
</tr>
<tr>
<td>China-Australia</td>
<td>15.84</td>
</tr>
<tr>
<td>China-Brazil</td>
<td>11.37</td>
</tr>
<tr>
<td>USA-EU</td>
<td>8.47</td>
</tr>
<tr>
<td>Japan-Japan</td>
<td>8.17</td>
</tr>
<tr>
<td>USA-China</td>
<td>7.91</td>
</tr>
<tr>
<td>Russia-EU</td>
<td>5.20</td>
</tr>
<tr>
<td>Japan-Australia</td>
<td>5.47</td>
</tr>
<tr>
<td>South Korea-China</td>
<td>5.35</td>
</tr>
<tr>
<td>Singapore-China</td>
<td>4.99</td>
</tr>
<tr>
<td>USA-South Korea</td>
<td>4.86</td>
</tr>
<tr>
<td>Malaysia-EU</td>
<td>4.81</td>
</tr>
<tr>
<td>USA-Japan</td>
<td>4.60</td>
</tr>
<tr>
<td>Brazil-EU</td>
<td>4.25</td>
</tr>
<tr>
<td>Indonesia-Indonesia</td>
<td>4.24</td>
</tr>
<tr>
<td>Japan-China</td>
<td>3.92</td>
</tr>
<tr>
<td>Brazil-Brazil</td>
<td>3.80</td>
</tr>
</tbody>
</table>

**Cumulative emissions**

- BAU
- CO2 max 2008
- CO2 50% in 2060, start reduction 2040
- CO2 zero in 2050 start reduction 2020
- CO2 zero in 2100 start reduction 2040
- CO2 70% in 2050, start reduction 2025
- CO2 90% in 2060, start reduction 2025

33Gt (2)
18Gt (1.5)
IMO Emissions Reduction Roadmap 2018-23 – What is up for debate

The next IMO meetings in April are crucial for the Pacific. The ISWG-GHG will be the last opportunity for a vision and high level of ambition consistent with 1.5°C to be included in the IMO Initial Strategy. The science supports that keeping open the possibility of 1.5°C requires decarbonisation of international shipping urgently.

The IMO Roadmap out to 2023 will see the work becoming more technical as details on measures to reduce emissions, the potential impacts on States of those measures, and how disproportionate impacts could be addressed are worked through. The Roadmap agreed by the IMO already foresees several meetings in London every year, and submissions to ISWG-GHG also propose more work to be added to the existing list. This means that if the Pacific IMO members are to ensure that their views are heard and reflected in the outcomes of the IMO roadmap process, they will need to plan for increasing commitments in terms of both human and financial resources.

Because of the lack of progress made, there is going to be considerable pressure on IMO members to compromise during the next ISWG-GHG so that consensus can be reached and an agreed Initial Strategy text proposed to the MEPC for adoption the week after. Due to Easter and the IMO Secretariat reporting requirements, the ISWG-GHG is only going to have three working days in which to reach agreement.

Some of the issues that are going to come up in the ISWG-GHG are of fundamental importance to the Pacific, particularly the vision and level of ambition commitments to decarbonisation of the sector to ensure that 1.5°C remains a possibility. For other IMO members protection of their ability to develop or protect their economies and trade are critical. Others have concerns over “who pays” and how “common but differentiated responsibilities – respective capabilities” (CBDR-RC) from UNFCCC is applied in the IMO where equal treatment of all ships regardless of their flag or “no more favourable treatment” (NMFT) has been the norm. The critical questions for the Pacific to consider in this context are:

- Assuming 1.5°C is still the target, should shipping bear a fair share of the decarbonisation burden? If yes then science says zero emissions by 2050. That is 32 years away – some say not possible, some say this is adequate time.

- What is needed to ensure that Pacific participation continues including out to 2023?

- Regardless of what the Pacific says or does, there is going to be change at international level – what does that mean for the Pacific, what does that mean for domestic operations – both industry and regulatory?

Whilst the debate on impact on States in IMO has acknowledged the special circumstances of SIDS, the consideration of what those impacts might be has been narrowly restricted to transport cost so far. For the Pacific (and other SIDS) the impacts are likely broader than this as shipping is critical for food security, disaster preparedness and response and the impacts of increased transport cost may be felt more severely for outer island communities served by domestic vessels reshipping international imports.

Key Messages from Workshop Discussion:

- Need to integrate our thinking and efforts. There are other stakeholders who need to be included in the discussions, e.g. ministries of economy, disaster management, tourism (e.g. cruise liners) and fisheries.

- Data collection is an on-going challenge but one that needs to be tackled if impacts of IMO measures on Pacific States are to be assessed and addressed comprehensively. This need for data collection and analysis needs to be built in to other initiatives such as national censuses, as well as regional and national projects that specifically target fuel use and emissions analysis nationally and regionally.
Key stages for the adoption of a Revised IMO GHG Strategy as set out in the Roadmap

- April 2018: MEPC 72 Adoption of the Initial Strategy
- January 2019: Start of Step 1: Data Collection
- Spring 2019: MEPC 74 Initiation of 4th IMO GHG Study
- Summer 2020: 2019 fuel oil consumption data reported to IMO
- Autumn 2020: MEPC 76 Start of Step 2: Data Analysis & 4th IMO GHG Study completed
- Spring 2021: MEPC 77 Secretariat reports on 2019 data & Initiation of work on adjustments to the Initial Strategy
- Summer 2021: 2020 fuel oil consumption data reported to IMO
- Spring 2022: MEPC 78 Step 3: Decision Making – Secretariat reports on 2020 data
- Summer 2022: 2021 fuel oil consumption data reported to IMO
- Spring 2023: MEPC 80 Secretariat reports on 2021 data & Adoption of Revised IMO GHG Strategy

Key Questions for Pacific

- Is 1.5°C still the target?
  - Yes
  - No
- Should shipping bear “fair share”?
  - Yes
  - No
  - Then international shipping needs to reach zero GHG emissions by 2050
- Are substantive short-term measures required now?
  - Yes
  - No
- Then need action plan recognition
- What are the potential impacts on/ issues for the Pacific?
- What does the Pacific want to say needs to be done to address these?
Action at Home – update on initiatives in the Pacific to reduce emissions from domestic shipping

Turning to domestic shipping, Fiji and Marshall Islands governments and the Pacific Community (SPC) described work and initiatives underway relating to decarbonisation of the fleet at national and regional level. Partnerships and collaboration across multiple agencies and stakeholders feature strongly in all.

Having reliable data and analysis to underpin policy development is crucial, as well as enabling monitoring and reporting progress towards targets. An initial assessment of Fiji’s registered domestic fleet shows that emissions from small boats (<20m) powered by outboard motors are significant (and that this is likely conservative due to the high number of suspected unregistered small boats). Marshall Islands is also collecting fuel use data, initially focusing on the government fleet. Solomon Islands noted that surveys undertaken found that of 15% of total fuel imports were used in small boats. SPC’s Maritime Technology Cooperation Centre (MTCC) has started working on a pilot project on fuel use data collection on domestic ships as well as energy audits and guidelines for ports.

Marshall Islands is the only Pacific State to have included a transport emissions reduction target in its Nationally Determined Contribution. Fiji is considering using the same target, and there are advantages in having the same target across the region. Having the policy framework in place is essential to enabling the domestic shipping sector to decarbonise. Past pilot projects such as soft-sail retrofits in Fiji provide data and lessons that can further inform future efforts.

Human capacity is stretched and partnerships and collaboration are critical. The joint Marshall Islands/USP MCST Framework features a specific work stream focused on partnerships. Established as a catalyst, the MCST Framework is designed to trial different approaches in the Marshall Islands and to roll out successes across the region. This “whole of country whole of sector” approach enables a more measured and coordinated programme that is country-driven.

There are a variety of options for decarbonising the domestic fleet. Fiji is considering short-medium term measures such as moving away from 2-stroke to 4-stroke then electric outboards, using lighter diesel fuels, ship hull cleaning requirements, and optimising routing. Marshall Islands is exploring a range of different technologies including flettner rotors, small energy-efficient intra-lagoon vessels, and Wingships. The sector is also taking action of its own volition, e.g. fishing boats are using drones to go look for fish so that the boat engines are not used until fish are found. SPC’s work on port energy use has seen more use of natural lighting and LEDs for interior light in port buildings.

Key Messages from Workshop Discussion:

- Institutional strengthening is critical. The Pacific’s lack of resources means we have to be strategic in how we use that resource. Human, financial and political capacity is needed and communication is key. Strategic use of existing assets and resources collectively helps in ensuring active Pacific participation. Synergies across the region need to be maximised.

- NDCs and national targets are important in aligning efforts. Collaboration between maritime and climate change staff and inter-linkages and common understanding are critical. NDC reviews provide opportunity to make targets more specific and address transport and maritime sectors.

- Mandatory data provision mechanisms, e.g. Shipping Franchise and other government subsidies can help in addressing data gaps. Needs to be cross-departmental and organisational efforts.

- Shifting to low carbon maritime transport is not a “future” option. We need to reduce the cost of transport, make it more efficient, and reliable and make travel safer to and from remote islands. This is going to require a basket of measures and possibly a multi-country programme.
GHG (CO2) Emissions from Fijis shipping sector

- Total estimated CO2 emitted from ships is about 227KT

By Percentage
1. GSS – 1.5%
2. Uneconomical – 1.6%
3. Economical – 29.5%
4. Small Boats – 33%
5. Fishing – 11%
6. Tourism – 15%
7. Others – 8.4%

RMI – 4 strand approach to low carbon shipping transition

- Shipping High Ambition Coalition
  - All sectors must bear their ‘fair share’
  - PSIDS issues must be accommodated and based on science

- Micronesia Center for Sustainable Transport
  - Whole of sector/whole of country low carbon transition
  - Catalyst for change cascading successes to the region

- Re-balance between transport/energy
  - Review NDCs to include transport and electricity emitting sectors

- Climate Financing for Pacific low carbon transition
  - RMI CN to 2nd GCF Council
The workshop was opened by Fiji’s Assistant Minister for Infrastructure and Transport Hon. Vijay Nath and His Excellency Mr. Patteson Oti, Ambassador of Solomon Islands to Fiji. Both highlighted the importance of Pacific participation in the International Maritime Organisation’s (IMO) work on reducing international shipping GHG emissions in the global efforts to meet the Paris Agreement temperature goal.

The focus of Day 1 was on updating participants on the context and background to the IMO emissions reduction work, the latest science, Pacific participation to date, and actions that are being taken domestically within the region.

4.1 Key Points from Presentations & Discussions

4.1.1 Presentation 1 - How did we get to where we are today?

- Background of climate change action in the Pacific in particular the Majuro Declaration (a united Pacific position calling for all sectors to actively engage) and the Suva Declaration which followed - both set a platform for Pacific leadership and resonated across the developing world. The Suva Declaration was catalytic in shifting the climate change debate internationally that allowed Paris Agreement to happen.

- In the 68th session of the IMO’s Marine Environment Protection Committee (MEPC68) RMI Minister Hon. Tony de Brum led senior Pacific Islands diplomats into the IMO. RMI had asked USP for assistance in 2014 on shipping emissions, which led to RMI lodging a submission to MEPC68 calling for sectoral target for GHG emissions reduction for international shipping.

- The 21st Conference of Parties (COP21) set the globally agreed temperature goal of “well below 2°C and pursuing efforts to limit to 1.5°C”. All countries have agreed to this and now the challenge for IMO is how this translates into a target for international shipping. The next few sessions of IMO will mostly be about how IMO can be involved and the Roadmap agreed at MEPC70 (a 6 year process with 2 steps – initial strategy to be agreed this year and revised strategy in 2023).

- COP23 was the first time transport sector has been a focus (record number of side events, Pacific and other Leaders’ statements on transport) and that there is now a spotlight on international shipping and aviation.

- IMO meetings to date, both MEPC and Intersessional Working Group (ISWG-GHG), on GHG emissions have not resulted so far in agreement and a wide range of opinion remains as to what is going to be in initial strategy despite the IMO having allocated a lot of resources to tackle GHG emissions debate. This is a challenge for IMO – it is also an opportunity (there are positive opportunities if we are smart and seize them). RMI and Solomon Islands sat with Bahamas during first ISWG-GHG and came up with a “vision” as a means of moving the debate forward and received a lot of support initially. Now there are a number of different positions being put up.

- France launched the “Tony de Brum” Declaration as a follow up to the Paris Agreement at the One Planet Summit in Paris last December, which has been signed by 39 world Leaders (Presidents and PMs, not transport Ministers). France and RMI have lodged a submission to MEPC72 noting the Declaration and its call for urgent action on international shipping emissions. The Declaration is open for signature until 9 March and Pacific countries that haven’t already done so are encouraged to consider becoming signatories.

- April IMO meetings are the last opportunity for Pacific to press for high level of ambition in the Initial Strategy. Focus needs to be on ISWG GHG as MEPC has other things on the agenda and won’t have a lot of time to discuss the Initial Strategy.

- Needs to be noted that the international debate has moved significantly in past couple of years, e.g. “decarbonisation” is a term now used by many in IMO and the shipping industry. The Pacific has been very influential in catalysing this change and needs to take credit.

- So far all that has been agreed are “Headlines” for Initial Strategy – no agreement as to text underneath those headings. Diverse positions have been made to ISWG-GHG on levels of ambition for decarbonisation; some saying we need to act and act now, others saying can’t achieve that and need to allow more time.

- Pacific IMO delegations need to be clear on what their respective governments will allow them to agree to. “Well below 2°C” means at least 70% decarbonisation by 2050 and “aiming for 1.5°C” means 100% by 2050.
Pacific Leadership has said “1.5°C to stay alive” hence submission drafted for co-sponsorship focuses just on “1.5°C” alignment.

- Industry is saying decarbonisation track must be adopted. We are seeing a paradigm shift within the industry. Currently there is huge overcapacity of ships, shipbuilding is in decline, some States are incentivising their boat building industry, Maersk is saying international shipping knows they will change, and are in fact constantly changing, that they want certainty, and that IMO, as chief regulatory body, must set a clear target.

- Need for dialogue between European and Pacific States was identified at MEPC 68 as both were pushing hard for change. This led to adopting the “High Ambition Coalition” approach (that was instrumental in reaching agreement in COP21) for shipping – Shipping High Ambition Coalition (SHAC). HAC was never a formal, organised thing – SHAC is the same – a space for sharing information and views and open dialogue. Mostly composed of European and some Pacific states, it also works closely with Canada, Japan, Australia, NZ, US, etc. Needs to expand to include other Pacific IMO members (e.g. Palau, PNG, Samoa) and others.

- Resources are needed for Pacific participation and “buddy” bilateral agreements have resulted between some Pacific and European States (Fiji-France, Tonga-Netherlands, Solomon Islands-Belgium, others in development, such as RMI-Germany, Kiribati-Sweden, Tuvalu-UK or NZ), partner for Vanuatu (e.g. Spain?). There has also been support from EU Delegation (through Pacific Islands Forum Secretariat) utilising EDF SPRAO for travel and per diems. Technical support has been provided to date by PIDF, USP and University College London (USP does not have capacity to do this alone and has been very fortunate for support offered by other international academies). How do we put together the resources needed to see the IMO roadmap process through?

- We should be clear that there is big gap to close in the discussions over the Roadmap. 1.5°C is critical for our survival – Pacific countries need to be very clear and need support from their capitals. Issue of vulnerability of SIDS hasn’t been talked about much yet – how is this to be addressed in the Strategy? Need further discussions between climate change and transport Ministries; possibly having UNFCCC reps on IMO teams.

- Critical role that Pacific diplomats based in Europe have – they are a strength and asset that Pacific has that we need to maximise. Agree that we need to better integrate UNFCCC/IMO – also issue for other countries (e.g. Brazil most active and energetic in HAC and yet one of the most “low ambition” countries at the IMO).

4.1.2 Presentation 2 - What’s up for debate in 2018?

- Roadmap is in 2 phases: phase 1 initial strategy & phase 2 revised strategy. Initial strategy – 2 ways of looking at this – 1) aim cautiously and revise upwards, 2) agree high to start with and use revision process to improve details of who, how and when.

- Time is of essence – science is saying that we are running out of time. If we want to get it right in IMO we need to get it right in Initial Strategy. Needs to identify short-term measures that will kick start decarbonisation trajectory.

- Chair of ISWG-GHG has proposed text as basis for April meeting – takes ability to achieve 1.5°C off the table. Has also said no repeat of past submissions and preferably no submissions to ISWG-GHG as it takes too long to introduce.

- Pacific is going to be under pressure to compromise – but is Pacific in a position to do so given we only have 10-20 years to act if we want to achieve 1.5°C target?

- Industry understands that change is needed, but wants clear indication of what is needed and by when.

- Questions for Pacific:
  a) Assuming 1.5°C is still the target, should shipping bear a fair share of the decarbonisation burden? If yes then science says zero emissions by 2050. That is 32 years away – some say not possible some say this is plenty of time.
  b) What is needed immediately to ensure that process continues?
  c) Regardless of what the Pacific says or does there is going to be change at international level – what does that mean for the Pacific, what does that mean for domestic operations – both industry and regulatory?
Pacific is unique – discussions in IMO so far are focused on transport costs, but there are other issues that could impact the Pacific: transport security e.g. 85% of food in RMI is brought in by sea. What happens if transport costs increase to our coastal and outer island communities? World Food Programme noted single biggest cost for disaster response is shipping/transport. CE Delft calculations show that transition to low carbon is likely to only result in a small percentage (0.5-1.5%) increase in transport costs except in particular circumstances (e.g. PSIDS) which could see 5-8% increases. Pacific needs to ensure that these sorts of issues are able to be covered when IMO implements the Initial Strategy. Data is still an issue in determining and assessing potential impacts on Pacific.

There could be positive outcomes – assumption is that impacts are going to be negative – it is possible that decarbonisation will lead to reduced costs and better technology that will be beneficial. No data to back up assumption that decarbonisation will lead to increased costs. Again data is needed.

Regulatory vs voluntary measures to reduce emissions. Shipping existed before nation States and resists regulation. Voluntary measures – some IMO states are suggesting voluntary National Action Plans (NAPs). Lesson from IMO sulphur regulation is that industry will leave it until last minute.

For governments this means more work – if there is going to be regulation, then that means more work. If this is reality then need IMO to recognise that SIDS need institutional strengthening.

If negative impacts of GHG emissions reduction measures are identified then compensatory measures need to be developed. Concern that compensation will end up being delivery of more technical cooperation.

Some of the key concerns of other IMO States expected to feature in April meetings include: common but differentiated responsibility – respective capability (CBDR-RC) and no more favourable treatment (NMFT) this is a hard debate for some States and hasn’t happened really yet (in the “too hard” basket) as is fundamental to who is going to pay and how, e.g. Market Based Measures (MBMs) and debate has been put off.

Data collection – how do you get fuel and shipping companies to provide information? For example, freight costs are 300% higher from Fiji to other PICs than from Singapore to Fiji. Onus on private sector to provide data, and need to introduce mandatory reporting.

Data is a great challenge for PICs – reality is Pacific governments currently need to subsidise shipping. Opportunity now with Fiji COP presidency to raise issues through Talanoa Dialogue and other processes and the SDG agenda. What are our national and regional gaps? Some discussions regionally on health, poverty, etc. but international transport is important – need to be more strategic as to how we fill that gap.

Why doesn’t the Pacific have any transport economists? How do we not overload government services? Imagine that all imports have increased in price by 10% because of GHG emissions reduced. What does that mean for Pacific countries and what do you want in terms of compensation/offset?

How is ICAO addressing this – supposed to be developing global MBMs – not yet decided.

Need to be more integrated in our thinking – e.g. sugar and tourism both hugely dependent on international transport – no consideration so far by either sector on what decarbonisation of the transport sector means for them. Is it not more risky for Pacific to depend on fossil fuels because of changes in fuel price – isn’t it safer to transition?

IMO has suffered from lack of input from SIDS and LDCs. RMI is chair of most vulnerable states – this needs series of discussions to happen.

Decarbonisation of developing economies is relevant – would need much work to get on agenda. IMO discussion affects all – need more south-south dialogue. Some argue that shipping is the “servant” of world trade: if things don’t get shipped then the world’s economy stops, so shipping should have a different set of rules to other emitting sectors; and shipping responds to the market. WTO has regulatory mandate to address trade. How do Pacific WTO members raise this?

Need for this conversation to be happening across multiple ministries in governments.
4.1.3 Presentation 3: Where do we need to get to?

- This presentation gave an update on the latest on the GHG emissions from international shipping and what level of decarbonisation is needed to keep “1.5°C to stay alive” a possibility. What GHG emission commitments should IMO make?

- To answer this question we can look at the emissions data, by ship type (to see which part of the sector is contributing most), or by route (to determine geographical responsibility of different countries). Graph presented with top 20 emitting routes with EU-EU route as highest emissions, quantification of CO₂ emissions that occur by route – is unfair for EU as includes shipping within France as well as between France and Germany for example, whilst other routes (e.g. Australia- Brazil) doesn’t include within the respective countries. You can see the significance of dry bulk emissions on some routes e.g. China trade particularly with Brazil and Australia.

- Emissions by economic development status –79% of emissions have developing country association – this is important for CBDR-RC – if this is used as platform in IMO context then will miss out large proportion of emissions.

- CO₂ emissions on SIDS and LDCs routes is very small (8.3%) and this is dominated by Singapore (Singapore is included as SIDS).

- Breakdown of emissions by ship types. Container shipping is fairly consistently a dominant emitter – Brazil’s CO₂ emission in shipping dominated by bulk carriers and iron ore – movement of a commodity might need considering, same might apply to PSIDS. Policy that focuses on all ship types; there is nothing consistent in the data to support this. There are examples of countries that have a much greater reliance with one ship type.

- World trade increase will see net increase in CO₂ emissions – clearly unacceptable from climate change perspective. 2008-18 saw a significant drop in CO₂ emissions and slight rise since because of the global financial crisis in 2007/08 so dramatic change in shipping economics as ships slowed down. Confidence increasing that there are things we can do to reduce emissions.

- Cumulative emissions are important for temperature goals. Carbon neutral growth is incompatible with any temperature goal – therefore decarbonisation trajectory needs to be heading to zero emission. Only option that comes close to 1.5°C is zero emissions by 2050 and starting as soon as possible.

- If you take a “fair share” approach then international shipping gets 18 gigatons (2.3% of global total). There may be argument that shipping needs to be allowed to increase its CO₂ emissions because it is a necessity for developing countries as they develop. This will mean reductions from other sectors. Different ways in which we can keep within 1.5°C (the 18 gigatons) – you can grow emissions over next 5 years but then around 2030 achieve a crash drop to zero emissions – if you start now then you have longer lead time in which to achieve that change.

- Importance of transition fuel – if you have an option of low carbon fuel then short term measures aren’t so necessary, if not then need short-term measures.

- Time for action is now but within policy framework that will take some time. The next 5-10 years will help to answer some of the questions around the viability of achieving 1.5°C.

- Ship size is important – small ships are more CO₂ emitting than rail and in some cases road. Massive rate of change in rail & road. So it is not true that shipping is least CO₂ intensive – it may be true for biggest ships at the moment. Road and rail vehicles show that technological change is possible – will put pressure on shipping as road & rail will be zero emissions and shipping will look increasingly bad in terms of CO₂ emissions. Will be increased pressure on the private sector.

- Shipping fuel mix (2 degrees scenario) show biofuels and hydrogen as being increasingly important. We need that fuel to start to be available in 2025 and rapidly growing from there. Can still have some consumption for MDO and HFO important for SIDS without the $ for the infrastructure. If more biofuel used then can delay use of hydrogen. Biofuel uncertainties include how much will be available for shipping. In about 10 years need significant zero carbon fuels to be available.

- Technological viability of low carbon fuels – biofuels are shown to consistently be the least disruptive way of achieving these targets, with ammonia and hydrogen in second place – battery electric not so good (because of high capital costs of batteries).
• Hydrogen not a simple solution from technological viewpoint – some work is now underway and pilot trials of hydrogen are being implemented, but need scaling up of fuel cells, cryogenic storage, etc. Hydrogen not that different from LNG as it also needs infrastructure.

• If we assume that the zero emission fuel option is hydrogen we would need to have the fuel to start being available in 2025 and grow rapidly (even on a 2°C pathway). Either way, by 2040/50 fossil fuels have to stop.

• Ammonia – much lower tech solution. Can be used in existing engines with minor modification. Ammonia is very hazardous with health impacts. Would require lots of training, technical specification of tanks, etc.

• Economics is important – large infrastructure change needs to happen. Private sector interests are increasing as cost of electricity drops (solar and wind are very cheap right now) then cost competitiveness of ammonia or hydrogen becomes more viable. Chile has 45% RE and some of cheapest solar power in the world – to manufacture hydrogen to be shipped to other parts of the world.

• Still infrastructure change needs to happen over next 15 years to get synthetic fuels into system but private sector interest & investment is rapidly shifting. Still need a powerful policy framework.

• Methane is one of the most potent GHG gases – whilst LNG is lower CO₂ it is higher in methane (slip and production) – so any CO₂ savings is lost. LNG is disaster for CO₂. Are bio-methane possibilities e.g. from anaerobic digestion so slip needs to be managed – but is only small niche market anyway.

• Transition costs are likely small because of changes in other sectors, which see technology. Economic impact may be smaller than thought. That is not to say that a consequence of achieving ambitious GHG reductions might be detrimental to the economic development of SIDS. In any case SIDS should be protected from transport cost increases.

• Hydrogen 90% made from natural gas/steam moves the CO₂ emissions to land (from production stage) – all modelling assumptions is that this is in transition – using RE and electrolysis as means of Hydrogen production – so graphs show hydrogen produced without CO₂ emissions and no CO₂ from use in ships.

• Short-term measures: operational energy efficiency measures, incentivise investment in energy efficiency and lower speed limits.

• Steam can have any fuel and is very flexible, boiler could be using hydrogen. Using hydrogen in combustion engine is technically difficult and industry talking about using hydrogen to power steam turbine as technology could be simpler. Not much further than discussions so far.

• Alternative options of fuel may not be applicable to Pacific countries – even biofuel not really option because coconut competing for food and lucrative oil usage, any research on SIDS specifically? Wind interesting potential and some versions of these fuels e.g. biofuel are more compatible with existing infrastructure. IMO question - is there a technology pathway to decarbonise? It is very difficult to get agreement on High Level of Ambition without alternative fuel. There are a range of options and relatively low cost of deployment at global level. SIDS routes are so small in relative terms that if we don’t do anything for 10-15 years’ time then will be ok and gives Micronesian Center for Sustainable Transport time to develop solutions for Pacific SIDS.

• The need for unique issues facing Pacific means we need to find our own solution. Unique issues we face may be lost at international level. There is a need for the Pacific to be conscious of what is the basket of short term measures - need to be catalytic but what do they need to be? Broadly speaking the right basket of measures is in the initial strategy acknowledging that it is focused on big picture “technology” pathway. Short term measures questions have been parked – but include speed reduction. If you were to set a speed level 10% lower than average speed used today, this would result in 45% improvement in energy efficiency on 2008 figures.

• The cost factor for new technologies – who is going to pay? Reduction of sulphur content being looked at in Fiji. Shipping has all sorts of externalities including climate impacts, another is air pollution – these can have human and ecosystem impact. Sulphur can cause acid rain but also damaging to human health from exhaust. Need to be careful that we don’t look at these issues in isolation – e.g. LNG has benefits from air pollution but no CO₂ benefit. So look for solutions that address many issues. Nearly all the alternative fuels (hydrogen, biofuels, etc.) also have significant reductions in SO₂, NOₓ, etc. However there is of course a cost for trials – even Europe is asking. UK Government spent GBP 3-4 million over last 5 years on GHG emissions reduction trials. It is an important question. Green bonds, climate financing, other than aid – have been used in other energy sectors. GCF application being developed with RMI – how can we use this application to capture wishes of other PICs?
4.1.4 Presentation 4 - Longer game out to 2023

- IMO roadmap timeframe out to 2023 includes the development and revision of the Initial Strategy with adoption of Revised Strategy in 2023, and the “3-step approach” relating to ship fuel consumption data collection and analysis. Analysis of data will feed into revision process.

- Short-term measures currently identified in the Chair’s proposed text will be implemented after 2023 at the earliest. Science is telling us we need urgent action on reducing emissions and the sooner we start the better, so we can’t wait until the final Strategy is adopted.

- This workload ahead to 2023 is daunting. There is talk of the Intersessional working group being extended with new terms of reference, in addition to the MEPC meetings already scheduled, so expect at least 2-3 IMO GHG emission related meetings in London per year for the next 6 years.

- If you then start to add in the views of the Pacific (we’ve already talked about need to identify impacts on States and measures to compensate disproportionate impact urgently for example) and other IMO member states (taken from their submissions to the ISWG GHG 3) you can see that the already large workload is just going to get bigger, depending on what is agreed in April.

- The Pacific has to have input to ensure important issues for the region are addressed, particularly as SIDS and LDCs are under-represented in IMO.

Key challenges:

- Discussions will become increasingly technical
- What are the impacts going to be and how could these be addressed, what has worked before and what hasn’t?
- Whatever gets agreed in April will end up sooner or later being regulated, which will mean increased flag and port state responsibilities to enforce implementation for example.
- This is a lot of work and we have to think strategically about how we best use the resources available to us, work out what institutional strengthening is needed and where to get that, to ensure continued participation from the Pacific.
- Importance of having political, human and financial capacity – one without the others doesn’t work.

4.1.5 Presentation 5 -Maritime GHG emissions reduction at home

4.1.5.1 Fiji

- The first presentation focused on Fiji and described the types of ships in Fiji, economic and uneconomic routes, registered ships in Fiji – by type, length & GRT. For example 15 vessels are owned by Ministry of Health, 18 by Police. The biggest emitting sub-sector is small boats (33%).

- Several policies are in place e.g. transport policy, green growth framework, national climate policy. National policy is important, as is having the infrastructure in place for international ships visiting. Human capacity is critical, as is multi-agency approach as individual departments are too small. For example the 5-20 year national development plan includes support to transition to low carbon transport, improving design efficiency, operational efficiency, reintroducing age limit for 2nd hand vessel imports.

- Has to be a collaborative effort.

Short/Medium-term measures being looked at in Fiji:

- Using lighter diesel fuels
- Transition to low sulphur fuels
- Ship hull cleaning requirements
- Moving away from 2-stroke to 4-stroke outboards and finally electric - needs subsidies to implement
• Using optimising routing
• Slow steaming – normally going slow anyway because cheaper for operators
• Planned maintenance system – better on-going maintenance reduces fuel burnt
• Biofuel – supply and cost needs to be considered
• Past projects that should be relooked at - soft sail retrofits (done in 1980s), Tai Kabara (sail power with back up small engine) built locally, biofuel – lack of supply and cost compared to fossil fuel; and current tradition canoes (I Vola Siga Vou and Uto ni Yalo registered commercial vessels in Fiji).
• Fiji has not yet ratified MARPOL Annex VI, the key instrument for GHG emissions.
• Fiji’s Nationally Determine Contribution obliges the maritime sector to contribute to reducing GHG. Fiji has yet to set a target in its NDC – maybe this could be a variable target for different sizes of vessel. ADB funded project was done late last year in Fiji by UCL, which started to collect data on maritime emissions. Data is critical for policy makers so they can be informed. Outboard motors really important – Palau has included transition from 2 – 4 stroke in its NDC. Maybe could be consistency across Pacific NDCs and a standardised target across the Pacific especially for small boats.
• How do you collect all the data? Solomon Islands did survey 2 years ago that found of all fuel imports more than 30% is for transport and of that more than 50% is used in small boats. How do we deal with overseas boats that refuel in-country in terms of national fuel inventories? The fishing industry is using different ways to reduce fuel because it costs a lot, they are using drones to look for the fish so that the boat doesn’t move until they find fish. MSAF has an electronic system and most ship owners have given data on fuel use (letter from CEO of MSAF to ship owners explained the data need of government) and under the shipping franchise it is mandatory for vessel operators to provide fuel used for every trip they take.
• What about unregistered vessels? In Fiji pleasure craft are registered as well commercial vessels and an infringement notice will help if they are operating without being registered. But unregistered vessels remain a huge task. A lot of pleasure craft are not registered. MSAF is now also going village-to-village and getting information from village headmen.

4.1.5.2 Marshall Islands
• Transportation sector has been lagging behind other sectors and the Micronesian Center for Sustainable Transport (MCST) has been established by RMI and USP as a catalyst for decarbonisation of transport that can be rolled out across the Pacific (a country-driven regional strategy using USP footprint that allows expansion of MCST to other Pacific countries). If we start small we can grow larger. This is Important because of the limited resources (human and financial) given to our ministries for data collection, etc. The reaction from others (including donors) is surprise that the transport sector was not included in discussions on energy security and agree it is a huge challenge.
• 2 pronged approach – what are we doing internationally and how are we translating these actions to our national actions. Internationally RMI has been leading on mitigation and reducing carbon emissions with others leading on adaptation and financing. MCST includes a high level policy unit there to support the region. There is not much being done on the ocean on mitigation. Having the credibility internationally to have the conversations with others such as US, China etc. requires action at home and so RMI identified a target in the NDC. The MCST Framework identifies how to achieve this target and has a number of work streams based on a comprehensive approach including partnerships.
• At domestic level (Intra and inter island) MCST is working with a number of International transport experts including UCL, Hochschule Emden/Leer and World Food Programme. Germany has provided 9.5m EU to trial small vessels and review efficiency of the government owned domestic vessels (the main mode of transport for outer islands) and subsequent retrofit/or new-build vessel and approaches. Korean wing ships are also being looked at as well as training and capacity building aspects.
• MCST governance sits with the Ministers of Education and Transport and the Board has been tasked with overseeing the whole transition for RMI government.
• A shift to low carbon transport is not a future option – we need to reduce the cost, make it more efficient and more reliable to travel safely to and from remote islands, and a multi-country Green Climate Fund bid is being developed for those interested.
4.1.5.3 Maritime Technology Cooperation Centre (MTCC)

- IMO global MTCC network of 5 centres – Pacific MTCC launched Dec last year. €1 million funding over 3 years for SPC and SPREP, hosted by Fiji and includes other target countries. Project includes regional and national workshops, data collection pilots, pilot projects. Work plan has been considered by regional transport ministers.

- Massive impact of fuel prices on emissions – also impact on global financial crisis. Importance of energy efficiency.

- MTCC Pacific vision – low carbon transition supports SDGs – reduce emissions, capacity building, facilitate implementation of energy efficiency, support low carbon technologies.

- Pilot project on fuel data collection and reporting for ships. Includes more detailed information on each ship and how it is operated so have better idea of efficiency of each ship and how operational efficiency can be improved. Also look to retrofit ships with technologies.

- To date have established an office, employed staff, begun fund raising to cover 5 year programme (including at IMO), had workshop on port efficiency, had national workshop in October, one in Solomon Islands next week followed by other PICs plus ship visits.

- Have already developed and Pacific gender toolkit. Port energy guideline developed. Fiji and Solomon Islands ports already reporting $30 – 40k savings in past few months. Done visibility & communications plan that includes publications and website, filming of national training workshops and putting them online so others can use/access them. Trialling of pilot technologies such as propeller hubs.

- Energy efficiency improvement in ports - most work has been done on the office itself e.g. using natural light and LEDs for interior lighting. Some electricity is disappearing that was not related to port – same as fuel (not being used by port itself) i.e. leakage.

- MTCC might assist countries in line for support from MTCC with data collection – is area that has held up GHG emissions inventories. NDC review by 2020 – can review our goals and make them more specific, transport and maritime. Data availability is a challenge – need to consider methods of obtaining that data, institutional strengthening and financing and what can we do to get there. Cooperation with other agencies with the region – good to have our resources used widely because we only have limited resources.

- Need for collaboration between IMO and climate change staff recognising the inter-linkages to ensure a common understanding and being more strategic in IMO meetings need. How do we best get ourselves organised to fully participate at IMO meetings to represent our region, especially when comes to developing IMO regulations.

Further details are available at URL:

CLOSING

At the end of the workshop, PIDF Secretary General Francois Martel, said that PIDF has been working on sustainable transport since its inception when Pacific Leaders identified the issue as one of ten priorities for the region. He said the maritime transport sector, though essential for the oceanic region, had been practically ignored in the development agenda and PIDF had been working to raise its profile ever since. He said the sector was indispensable for our islands.

In closing, His Excellency Sujiro Seam, the Ambassador of France for Fiji, Kiribati, Nauru, Tonga and Tuvalu, said that France, with territories in the Atlantic, Indian and Pacific Oceans, has similar concerns about Climate Change as the Pacific Island countries. He said the COP23 President was correct when he said that “we are all in the same canoe”... it was certainly the case for France.
## ANNEX 1 - LIST OF PARTICIPANTS

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<thead>
<tr>
<th>Entity/State</th>
<th>Name</th>
<th>Title</th>
<th>Organisation</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marshall Islands</td>
<td>Mr. Albon Ishoda</td>
<td>Deputy Chief of Mission</td>
<td>Marshall Islands Embassy Suva, Fiji</td>
<td><a href="mailto:dcm.mrifiji@gmail.com">dcm.mrifiji@gmail.com</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Joseph Bigler</td>
<td>Deputy Commissioner of Maritime Affairs</td>
<td>Office of the Maritime Administrator Trust Company of the Marshall Islands</td>
<td><a href="mailto:tcmi2@ntamar.net">tcmi2@ntamar.net</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Joshua Laka-bung</td>
<td>Maritime &amp; Safety Inspector</td>
<td>Ministry of Transportation, Communications &amp; Information Technology.</td>
<td><a href="mailto:jilakabung3@gmail.com">jilakabung3@gmail.com</a></td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>Mr. Hudson Kauhiona</td>
<td>Acting Director</td>
<td>Climate Change Division, Ministry of Environment, Climate Change &amp; Disaster Management, Government of Solomon Islands</td>
<td><a href="mailto:hkhiona@gmail.com">hkhiona@gmail.com</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Jimmy Nuake</td>
<td>Acting Permanent Secretary</td>
<td>Ministry of Infrastructure and Development, Government of Solomon Islands</td>
<td><a href="mailto:JNuake@mid.gov.sb">JNuake@mid.gov.sb</a></td>
</tr>
<tr>
<td>Fiji Islands</td>
<td>Mr. John Tunidau</td>
<td>CEO and Manager Standards &amp; Conformance</td>
<td>Maritime Safety Authority of Fiji Suva, Fiji</td>
<td><a href="mailto:jtunidau@msaf.com.fj">jtunidau@msaf.com.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Philip Hill</td>
<td>Manager Safety Compliance &amp; Response/Port Master</td>
<td>Maritime Safety Authority of Fiji Suva, Fiji</td>
<td><a href="mailto:phill@msaf.com.fj">phill@msaf.com.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Nanise Rabe</td>
<td>PA to General Manager Standards and Conformance and Acting PA to CEO</td>
<td>Maritime Safety Authority of Fiji Suva, Fiji</td>
<td><a href="mailto:nrabe@msaf.com.fj">nrabe@msaf.com.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Kalusiani Vuki</td>
<td>Legal Risks and Audit Officer</td>
<td>Maritime Safety Authority of Fiji Suva, Fiji</td>
<td><a href="mailto:kvuki@msaf.com.fj">kvuki@msaf.com.fj</a></td>
</tr>
<tr>
<td></td>
<td>Ms. Mavis E. V. Joseph-Logavatu</td>
<td>Legal Risks &amp; Audit Officer</td>
<td>Maritime Safety Authority of Fiji Suva, Fiji</td>
<td><a href="mailto:mjoseph@msaf.com.fj">mjoseph@msaf.com.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Lui Naisara</td>
<td>Deputy Secretary</td>
<td>Ministry of Infrastructure and Transport Govt. of Fiji</td>
<td><a href="mailto:lui.naisara@moit.gov.fj">lui.naisara@moit.gov.fj</a></td>
</tr>
<tr>
<td></td>
<td>Ms. Lesi Vuatalevu</td>
<td>Acting Transport Planner</td>
<td>Ministry of Infrastructure and Transport Govt. of Fiji</td>
<td><a href="mailto:lesi.vuatalevu@govnet.gov.fj">lesi.vuatalevu@govnet.gov.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. David Kolitagane</td>
<td>Permanent Secretary</td>
<td>Ministry of Infrastructure and Transport Govt. of Fiji</td>
<td><a href="mailto:psit@moit.gov.fj">psit@moit.gov.fj</a> / <a href="mailto:DKolitagane@govnet.gov.fj">DKolitagane@govnet.gov.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Sanaila Naqali</td>
<td>Permanent Secretary</td>
<td>Ministry of Fisheries</td>
<td>PA - Sikiti Samisoni <a href="mailto:SSamisoni@fisheries.gov.fj">SSamisoni@fisheries.gov.fj</a></td>
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<td><a href="mailto:phill@msaf.com.fj">phill@msaf.com.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Puamau Sowane</td>
<td>Deputy Secretary Infrastructure</td>
<td>Ministry of Infrastructure and Transport</td>
<td><a href="mailto:puamau.sowane@moit.gov.fj">puamau.sowane@moit.gov.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Manasa Lesuma</td>
<td>Deputy Secretary Operations</td>
<td>Ministry of Infrastructure and Transport</td>
<td><a href="mailto:manasa.lesuma@moit.gov.fj">manasa.lesuma@moit.gov.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Mikael Beleña</td>
<td>Director of Energy</td>
<td>Ministry of Infrastructure and Transport</td>
<td>mikael.beleñ<a href="mailto:a@moit.gov.fj">a@moit.gov.fj</a></td>
</tr>
<tr>
<td></td>
<td>Ms Susana Valemei</td>
<td>Director Water and Sewage</td>
<td>Ministry of Infrastructure and Transport</td>
<td><a href="mailto:susana.valemei@moit.gov.fj">susana.valemei@moit.gov.fj</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Joseese Lawaniyasana</td>
<td>Director Government Shipping Services</td>
<td>Ministry of Infrastructure and Transport</td>
<td><a href="mailto:joseese.lawaniyasana@moit.gov.fj">joseese.lawaniyasana@moit.gov.fj</a></td>
</tr>
<tr>
<td></td>
<td>Ms. Faraniseke Kiniwuwai</td>
<td>Director Infrastructure, Transport and Policy</td>
<td>Ministry of Infrastructure and Transport</td>
<td><a href="mailto:faraniseke.kiniwuwai@govnet.gov.fj">faraniseke.kiniwuwai@govnet.gov.fj</a></td>
</tr>
<tr>
<td></td>
<td>Iliesa Koli</td>
<td>Divisional Engineer Works Central Eastern</td>
<td>Ministry of Infrastructure and Transport</td>
<td><a href="mailto:iliesa.koli@moit.gov.fj">iliesa.koli@moit.gov.fj</a></td>
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<td><strong>Tonga</strong></td>
<td>Mr. Patelesio Manuken</td>
<td>Assistant Marine Environment Officer</td>
<td>Marine and Ports Division Ministry of Infrastructure</td>
<td><a href="mailto:pmanuken@infrastructure.gov.to">pmanuken@infrastructure.gov.to</a></td>
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<tr>
<td><strong>Kiribati</strong></td>
<td>Mr. Kabeia Ananrae</td>
<td>Marine Officer, MAR-POL, Marine Division</td>
<td>Ministry of Information Communication Transport and Tourism Development</td>
<td><a href="mailto:marine.officer.kab@mictd.gov.ki">marine.officer.kab@mictd.gov.ki</a></td>
</tr>
<tr>
<td></td>
<td>Ms. Teniti Aro Taam</td>
<td>Pollution Control Officer</td>
<td>Environment and Conservation Division under the Ministry of Environment, Lands and Agricultural Development</td>
<td><a href="mailto:teniti@environment.gov.ki">teniti@environment.gov.ki</a></td>
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<tr>
<td><strong>Tuvalu</strong></td>
<td>Mr. Asolelei Aniteleni</td>
<td>Marine Manager</td>
<td>Tuvalu Marine Department Government of Tuvalu</td>
<td><a href="mailto:aaniteleni@gmail.com">aaniteleni@gmail.com</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Salolo Tepoga</td>
<td>Assistant Marine Manager</td>
<td>Tuvalu Marine Department Government of Tuvalu</td>
<td><a href="mailto:siaositepoga@gmail.com">siaositepoga@gmail.com</a></td>
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<tr>
<td><strong>Vanuatu</strong></td>
<td>Mr. Markmon J. A. Batie</td>
<td>Commissioners of Maritime Affairs</td>
<td>Ministry of Infrastructure and Public Utilities (MIPU), Port Vila, Government of Vanuatu</td>
<td><a href="mailto:mjabatie@vanuatu.gov.vu">mjabatie@vanuatu.gov.vu</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Henry Worek</td>
<td>Director</td>
<td>Ports &amp; Marine Department Pmb 9046 Port Vila</td>
<td><a href="mailto:hworek@vanuatu.gov.vu">hworek@vanuatu.gov.vu</a></td>
</tr>
<tr>
<td></td>
<td>Mr. Charles Maniel</td>
<td>Interim Regulator</td>
<td>Office of the Maritime Regulator, Port Vila, Vanuatu</td>
<td><a href="mailto:cmaniel@omr.vu">cmaniel@omr.vu</a></td>
</tr>
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### ANNEX 1 - LIST OF PARTICIPANTS

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name</th>
<th>Role</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC</td>
<td>Mr. Mark Davis</td>
<td>Transport GHG Adviser MTCC-Pacific</td>
<td><a href="mailto:markd@spc.int">markd@spc.int</a></td>
</tr>
<tr>
<td>United Nations Development Programme</td>
<td>Mr. Thomas Jensen</td>
<td>Regional Technical Adviser (RTA)</td>
<td><a href="mailto:thomas.jensen@undp.org">thomas.jensen@undp.org</a></td>
</tr>
<tr>
<td>NZ High Comm.</td>
<td>Mr. Alex Jebson</td>
<td>Second Secretary</td>
<td><a href="mailto:alex.jebson@mfat.govt.nz">alex.jebson@mfat.govt.nz</a></td>
</tr>
<tr>
<td>MCST/USP</td>
<td>Ms Alison Newell</td>
<td>High Level Policy Unit Advisor</td>
<td><a href="mailto:alison@s4sfiji.com">alison@s4sfiji.com</a></td>
</tr>
<tr>
<td>Dr Peter Nuttall</td>
<td></td>
<td>Scientific and Technical Advisor</td>
<td><a href="mailto:peter.nuttall@usp.ac.fj">peter.nuttall@usp.ac.fj</a></td>
</tr>
<tr>
<td>PIDF</td>
<td>Mr Mark Borg</td>
<td>Team Leader Programme Management</td>
<td><a href="mailto:mborg@pacificidf.org">mborg@pacificidf.org</a></td>
</tr>
<tr>
<td></td>
<td>Mr Nikhil Lal</td>
<td>Coordinator Programme Management</td>
<td><a href="mailto:nlal@pacificidf.org">nlal@pacificidf.org</a></td>
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"So the key question for this workshop is – how we can effectively align ourselves towards the IMO targets on GHG emission reduction without compromising the transport needs of our small island states"

Hon. Vijay Nath,
Asst. Minister for Infrastructure and Transport

"What is decided at the next IMO meeting will largely answer the question as to whether shipping is to play its full role under the agreement we all forged at Paris"

H.E Patteson Oti
Solomon Islands High Commissioner to Fiji