Climate Action Pacific Partnership (CAPP)
Side Event

13-14 May 2019
Holiday Inn,
Suva, Fiji.

TALANOA
SUSTAINABLE, RESILIENT AND LOW CARBON SEA TRANSPORT FOR PACIFIC ISLAND COUNTRIES
ACKNOWLEDGEMENTS
We offer our sincere thanks to all our Members and Partners who have worked with us on our journey to support an enabling environment for Green-Blue Pacific economies, and affect transformative change for sustainable and inclusive development in the Pacific.

DESIGN
The Talanoa Series Report is designed by the PIDF Strategic Communications Unit. Photographs and text are acknowledged to PIDF Programme and Strategic Communications Units.

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<table>
<thead>
<tr>
<th>ACRONYMS</th>
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<tr>
<td>CAPP</td>
<td>Climate Action Pacific Partnership</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>GCF</td>
<td>Green Climate Fund</td>
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<td>GEM</td>
<td>Geoscience, Energy and Maritime</td>
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<td>H.E.</td>
<td>His Excellency / Her Excellency</td>
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<td>IMO</td>
<td>International Maritime Organisation</td>
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<td>MCST</td>
<td>Micronesian Centre for Sustainable Transport</td>
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<td>NDCs</td>
<td>Nationally Determined Contributions</td>
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<td>NOx</td>
<td>Nitrogen Oxides</td>
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<td>New South Wales</td>
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<td>Pacific Island Countries</td>
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<td>PIDF</td>
<td>Pacific Islands Development Forum</td>
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<td>PSIDs</td>
<td>Pacific Small Island Developing States</td>
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<td>OEPPPC</td>
<td>Office of Environment Planning &amp; Policy Coordination</td>
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<td>R &amp; D</td>
<td>Research and Development</td>
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<td>RMI</td>
<td>Republic of Marshall Islands</td>
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<td>SDG</td>
<td>Sustainable Development Goals</td>
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<td>UCL</td>
<td>University College London</td>
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<td>United Kingdom</td>
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<td>UNSG</td>
<td>United Nations Secretary General</td>
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<td>USD</td>
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INTRODUCTION AND BACKGROUND

Transport is the biggest consumer of fossil fuel in the Pacific but has lagged behind in decarbonisation. Many of the ships are old and incur greater operating costs when compared to other modernised options currently available. The potential exists for a targeted approach to decarbonise Pacific shipping fleets, and this has been evident ever since Tony de Brum made a call to do so at the international level at the IMO in 2016.

The submission by the Republic of Marshall Islands (RMI) was strongly supported by Vanuatu, Solomon Islands, Tuvalu, Kiribati and Fiji. This call was then fortified by alliances that formed with European countries over the course of the past four years, culminating last year in the IMO adopting an Initial Strategy for emissions reductions in the Maritime sector.

The Pacific has been hailed around the world as being the instigator of a revolution for international shipping, and although this Initial Strategy adopted last year does not go far enough, it does set the scene for crucial, more ambitious discussions at the global level in the coming months and years.

Evidence suggests that all the big players in international shipping are planning to decarbonise their fleet. In line with the theme of the 3rd Climate Action Pacific Partnership (CAPP) Conference, “Decarbonise and build resilience now...the call from the Pacific”, this Talanoa aims to discuss a “Financing a large scale Transition” Proposal for sustainable, resilient and low carbon sea transport for Pacific Island countries.

There is a significant opportunity for the Pacific to collectively call for a major climate financing investment in the maritime transport sector to drive a transition of significant scale. If action is not taken now, there is a serious risk that we will be left behind with stranded diesel-powered assets and ever-increasing fuel and carbon penalties.

Discussions took place over two days at the Holiday Inn, Suva, Fiji, on the margins of the 3rd CAPP Conference which itself was held at the Grand Pacific Hotel in Suva.
Welcome Address - Mr. Taholo Kami

Mr. Kami welcomed everyone to the Talanoa, particularly those who have flown in from abroad to attend the CAPP Conference and more importantly, this Side Event.

A list of participants is appended as Annex 1 to this Report.

The future of domestic and international shipping in the Pacific needs to be thoughtfully planned, and the objective of this Talanoa is to discuss the “Financing a Large-Scale Transition” Proposal written at the behest of the Governments of Fiji Islands and the RMI, “calling on other Pacific Island countries (PICs) and key international partners to join a partnership for an initial blended finance package of USD $500million to fund domestic shipping and related infrastructure in 5-6 Pacific Island countries”.

Opening Remarks – Hon. David Paul

The Governments of Fiji Islands and RMI are calling for support from PICs to form a coalition and present a business case to the United Nations Secretary General (UNSG) Climate Summit in New York in September this year. The risk of being left behind with stranded, aged and aging assets, and their accompanying high costs, increases drastically if Pacific shipping industries do not align themselves to global decarbonisation efforts.

There is a dire need to bring together all types of resources to possibly replace domestic fleets with more cost effective, sustainable options, and employ more operational efficiency strategies, and the “Financing a Large-Scale Transition” Proposal sets out a blended financing proposal to support these activities as well as summarises key points. The debate is not entirely about technology, but how to acquire finance to implement those technologies. Not being able to adapt to the changing times will leave the Pacific with stranded assets.

The Governments of Fiji and RMI are willing to take the lead on this, but needs partnerships with and political commitments from other countries to bring about synergy and a truly Pacific effort. It is understood that not all countries might want to go down this path so a core of 5-7 countries is being sought to lead on this. Enabling private sector confidence for small countries like the RMI will be an important component of this Proposal, as currently, it is the Government that either subsidises costs of shipping services or bears the full brunt of it.
Summary of Proposal – Mr. Kushaal Raj and Dr. Peter Nuttall

There are considerable multiplier effects stemming from a more advanced, sustainable shipping sector – the Pacific can facilitate better access for trade, for disaster management, for health and other resources. Investment in sustainable shipping makes sense, from both the public sector and private sector perspectives.

Carbon financing provides a unique opportunity to develop more appropriate and affordable shipping solutions but any transition of scale and speed will require a concerted, coordinated programme of work.

The Pacific needs to consider what level of investment it wishes to make in domestic decarbonisation. For the sake of comparison, close to USD $2billion has been invested in renewable energy with respect to electricity generation whereas investment in modern shipping has been minimal relative to that. There are positive indications from major donors who are waiting to fund something of this sort, and this Proposal will aid in accessing that pool of finance. The Proposal has also been prepared and reviewed with experts such as the University College London (UCL) and other experts including those in the UNSG’s Energy Transition team who are all prepared to support and work further on it.

It is now a matter of getting support from Pacific countries themselves, and to discuss further those important aspects of the document such as what structure the finance will take, the possible use of Blue Bonds and other financing modalities and associated governance structures. Underwriting shipping finance and insurance is the huge hurdle for the shipping industry in the Pacific. Current insurance premium rates are around 10-11%, whereas in New Zealand and other parts of the world, shippers face paying only 2-3%. The scenario will vary considerably from country to country.

While some generic processes and polices can be envisaged, it is essential to identify needs of individual countries. It is very important that this proposal remain a country driven approach. Presentation slides are appended as Annex 3 to this Report.
Discussions with Dr. Ben Milligan

Lessons learnt from those who are also undergoing this transition internationally will help guide us in our journey, and the existing fleets can easily decarbonise using technologies that are currently available.


It is important to note that one-in-every-five containers shipped in the world are on Maersk ships.


The proposal will be a mixture of loan and grant modalities, initially looking to prepare and implement National Action Plans for each country and pilot/proof of concept trials of new technologies and measures using government assets. But ensuring uptake across the private sector is the real challenge.
Discussions with Ms. Aoife O’Leary

Norway is an exemplar of what can be done with domestic shipping. In 2006, to address European standards on air pollution from nitrogen oxides (abbreviated to “NOx”), Norway government and industry established a voluntary NOx Levy, which is collected and kept aside in a NOx Trust Fund and invested in research and development (R & D) of technologies to reduce NOx emissions.

This now generates a R&D fund of some USD $0.5billion per annum which is being effectively used to fully revitalise and decarbonise the Norwegian domestic shipping industry.

The UK Government is now investigating the Norwegian model as it prepares its domestic decarbonisation programme.

Norway is effectively on track to fully decarbonise their domestic shipping by 2026 in the fiords and nationally by 2032, and through this, are also revitalizing their shipping sectors’ economic value.

How can such similar progress be brought to the Pacific?
Talanoa Discussions

- The question now is – which countries would like to be a part of this “Financing a large-scale transition” Proposal to curb carbon emissions, create social opportunities and financial benefits being led by the Government of Fiji Islands and the RMI?

- Is it possible for a group of countries to make an announcement of some sort at this CAPP Conference, and commit to making an official announcement at the UNSG Summit in New York in September? And then next big step possibly at the Oceans Summit in 2020 to announce a proper finalized document. There is a need to invite other bilateral and multilateral partners to come on board, but discussions amongst ourselves first, as countries, is important. Tuvalu is committed to pursuing this initiative, but some clarity on how the financial value in the Proposal was reached would be useful.

- The initial Concept Note was prepared as an outcome of the Pacific Islands Transport Forum and Exposition held at the University of the South Pacific (USP) in November 2018 (https://research.usp.ac.fj/pacific-islands-transport-forum-expo/). The Concept Note was valued at around USD $250million, but is now revised upward to USD $500million because other Pacific countries who are not in this room may wish to collaborate later. Also, as mentioned earlier, the proposed USD $500million is a small fraction when compared to what is considered the norm for projects related to renewable energy. A survey conducted over a number of years in the Solomon Islands revealed that domestic shipping consumed a bulk of the fuel imported. This could well be the case for many other Pacific countries. Solomon Islands is interested in being a part of discussions on this Proposal going forward.

- Vanuatu supports those who have committed to this in whatever way, but needs to peruse the Proposal further before officially committing. Samoa will also need to peruse the Proposal further before officially committing. Fiji is one of two countries from the Pacific region with a Nationally Determined Contribution (NDC), of which transport is a fundamental component. It is vital to begin work on details such as those that expound options of retrofitting versus purchasing new ships. Something also worth considering is the delivery of capacity strengthening in this area through regional universities like USP.

- It is also discussed that uneconomical routes exacerbate the cost of shipping in the Pacific. Designing economical routes means money saved, and this money can then be reinvested into the shipping industry.
Next steps and ways forward

The Co-Chairs summarised the discussions and acknowledged the support received from Samoa, Vanuatu, Solomon Islands and Tuvalu, and indicated that the CAPP’s concluding statement will mention this.

It was agreed that the organisers of this Talanoa convene another similar meeting the following day to socialise this Proposal with development partners and relevant non-state actors in order to gauge their interest, get initial reactions and feedback, and to ultimately determine what kind of support, if any, they can give for it.
Welcome Remarks – Mr. Taholo Kami

Mr. Kami welcomed and thanked everyone for attending this Talanoa on such short notice. This was an indication of the interest that maritime shipping emissions generate. A list of participants at this Talanoa is appended as Annex 4 to this Report.
The conversation on maritime emissions has grown significantly since MEPC68, with more Pacific countries taking the stand in the High Ambition Coalition, calling for a drastic reduction in carbon emission stemming from domestic and international shipping.

It is through working with global partners such as UCL and UNSW that the Governments of Fiji and RMI have come to this position to be able to present this “Financing a large-scale Transition” Proposal. Yesterday, a room-full of representatives from 8 PICs were introduced to the Proposal and what all it entails. The Governments of Fiji and RMI are leading the initiative, with Samoa, Vanuatu, Solomon Islands and Tuvalu agreeing to work together, albeit following consultations with their Governments.

Today, we are casting a wider net by introducing this Proposal to this cohort to get initial feedback and comments. Dr. Nuttall’s presentation is appended as Annex 5 to this Report.
Talanoa Discussions

- The Proposal has clear links to the Sustainable Development Goals (SDGs) and fits in well with the NDCs of PICs.
- What is important, from a private sector and financing perspective, is for the Proposal to indicate that it is an investment from which there can be expected cash paybacks. If it is posed as simply a Grant, it will be difficult to sell to possible financiers. As such, engagement with and buy-in from each PIC’s domestic shipping entities will be a key success factor, keeping in mind that each has their own domestic and regional financial interests.
- The Pacific is the costliest place for shipping and any increases in fuel price will impact the entire region. With respect to that, the Proposal should target capacity development so as to move away from this risk.
- Existing experiences in the Pacific, particularly from recent encounters with Green Bonds can feed into the entire process, and complement the finances that could be raised from international development partners. Political backing from each of the PICs involved is imperative, as sustainable transport has been on their hit-list for a long time.
Next steps and ways forward

- The inclusion of key outcomes from discussions on Day 1 and Day 2 in the CAPP’s Concluding Remarks will send the necessary signals to countries, development partners and other regional and international organisations, of the concerted efforts by PICs to be innovative and global in their approach, and leaders of high ambition climate action. As such, the Co-Chairs will encourage the Fiji COP23 Presidency Secretariat to include some key outcomes in the CAPP’s Concluding Remarks.
- It is suggested for the Proposal to be socialised at upcoming regional meetings such as the Heads of Maritime Meeting in Vanuatu and the Energy and Transport Ministers’ Meeting in Apia.
- Setup Working Groups of development partners, co-chaired by Fiji and the RMI, which will take the proposal forward, with the ultimate aim of presenting a finalized Draft of this Proposal at the UNSG’s Climate Summit in New York in September this year. One Working Group will be tasked to coordinate the overall efforts related to the proposal (Coordinating Working Group – CWG), another to focus on financial matters (Financing Working Group – FWG) and a third to focus on technical matters (Technical Working Group – TWG).
- One of the first tasks for the CWG could be to send formal letters to participants/representatives here requesting nomination of country focal points. For the FWG, one of their first tasks could be to scope existing financing mechanisms and put together a proposed initial package of potential blended finance modalities to present at UNSG’s Climate Summit. For the TWG, it is suggested that basic country maritime profiles be created to capture the small number of existing initiatives that can possibly dovetail into an expanded multi-country programme as this Proposal is suggesting.
## ANNEX 1  List of Participants – Day 1

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<thead>
<tr>
<th>Name</th>
<th>Organisation and title</th>
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<tr>
<td>H.E. Albon Ishoda</td>
<td>Ambassador of the RMI to Fiji</td>
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<tr>
<td>Ms. Aoife O’leary</td>
<td>Senior Legal Manager, Environmental Defense Fund, UK</td>
</tr>
<tr>
<td>Mr. Andrew Irvin</td>
<td>Project Officer, MCST, USP</td>
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<tr>
<td>Mr. Bakoa Kaltongga</td>
<td>Chairman of Airports Vanuatu and Ifira Island Ports Development Services, Vanuatu</td>
</tr>
<tr>
<td>Dr. Ben Milligan</td>
<td>Oceans and Sustainable Development Policy Specialist, University of NSW</td>
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<tr>
<td>H.E. Minister David Paul</td>
<td>Minister-in-Assistance to the President and Environment Minister of the RMI</td>
</tr>
<tr>
<td>Ms. Deepitika Chand</td>
<td>Climate Change Officer (Mitigation), Ministry of Economy, Government of Fiji</td>
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<tr>
<td>Mr. Ellison Mason</td>
<td>Charge De Affairs, Solomon Islands High Commission, Fiji</td>
</tr>
<tr>
<td>Mr. François Martel</td>
<td>Secretary General, PIDF</td>
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<td>Mr. Hudson Kauhiona</td>
<td>Acting Director Climate Change Division, Government of Solomon Islands</td>
</tr>
<tr>
<td>Ms. Kaitland Smith</td>
<td>Ministry of Economy, Government of Fiji</td>
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<tr>
<td>Mr. Kevin Iro</td>
<td>Marae Moana Ambassador, Cook Islands</td>
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<tr>
<td>Mr. Kushaal Raj</td>
<td>Oceans Specialists, Ministry of Economy, Government of Fiji</td>
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<tr>
<td>Mr. Jean Claude Emelee</td>
<td>First Political Advisor, Ministry of Infrastructure &amp; Public Utilities, Government of the Republic of Vanuatu</td>
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### ANNEX 1  List of Participants – Day 1 (cont’d)

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<thead>
<tr>
<th>Name</th>
<th>Position and Organization</th>
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<tbody>
<tr>
<td>Ms. Loisi Seluka</td>
<td>Ministry of Finance, Government of Tuvalu</td>
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<td>Mr. Mark Borg</td>
<td>Team Leader Programme Management, PIDF</td>
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<td>Honourable Monise Laafai</td>
<td>Minister for Communication &amp; Transport, Government of Tuvalu</td>
</tr>
<tr>
<td>Mr. Nilesh Prakash</td>
<td>Head of Climate Change and International Cooperation Division, Ministry of Economy, Government of Fiji</td>
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<td>Mr. Nikhil Lal</td>
<td>Coordinator Programme Management, PIDF</td>
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<td>Dr. Peter Nuttall</td>
<td>Scientific and Technical Advisor, MCST, USP</td>
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<td>Mr. Prashant Chandra</td>
<td>Climate Finance Officer, Ministry of Economy, Government of Fiji</td>
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<td>Ms. Sargam Goundar</td>
<td>Climate Change Officer, Ministry of Economy, Government of Fiji</td>
</tr>
<tr>
<td>Mr. Taholo Kami</td>
<td>Special Representative – Oceans, Ministry of Economy, Government of Fiji</td>
</tr>
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<td>Mr. Trevor Ramoni</td>
<td>Assistant Secretary, Climate Change and Ocean Branch, Ministry of Foreign Affairs and External Trade, Government of Solomon Islands</td>
</tr>
<tr>
<td>H.E. Mr. Robert Sisilo</td>
<td>Permanent Representative of the Solomon Islands to the United Nations</td>
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<td>Mr. Ulu Bismarck Crawley</td>
<td>CEO, Ministry of Natural Resources and Environment, Samoa</td>
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<td>Ms. Vanda Faasoa Chan Ting</td>
<td>Acting CEO, Renewable Energy Division, Government of Samoa</td>
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<td>Mr. Vineil Narayan</td>
<td>Climate Finance Specialist, Ministry of Economy, Government of Fiji</td>
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<tr>
<td>Mr. Vitoli Iosefa</td>
<td>Ministry of Finance, Government of Tuvalu</td>
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<tr>
<td>Mr. Warwick Harris</td>
<td>Deputy Director, OEPPC, Government of Marshall Islands</td>
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Summary

1) The governments of Fiji and RMI have identified an urgent need for large-scale financial investment, to catalyse a region-wide transition to sustainable, resilient and low carbon shipping. They are calling on other Pacific Island countries (PICs) and key international partners to join a partnership for an initial blended finance package of $500m to fund domestic shipping and related infrastructure in 5-6 Pacific Island countries. We hope the final partnership will be announced at the UN Secretary General’s Climate Change Summit in September 2019. This proposal builds on the efforts previously endorsed by the Pacific Regional Energy and Transport Ministers in April 2017, by the 18th Micronesian Presidents’ Summit in February 2018 and the Pacific Island Transport Forum in November 2018.

2) The sustainable development of PICs is undermined by urgent and large-scale sea transport challenges. These include the reliance of vessels (fishing, cargo, and passenger) on imported fossil fuels, the prevalence of inefficient and under-maintained vessels, and a lack of supporting infrastructure (modern ports, bunkering, shipbuilding and repair) for the maritime transport sector. Imported petroleum products account for an average of ~40% of GDP in PICs, with the transport sector being the largest user of fuel, a significant portion of this attributable to maritime transport.

3) Current evidence highlights the significant and enduring potential benefits (social, economic, and environmental) of a rapid transition to sustainable, resilient and low-carbon sea transport in PICs. Climate change is an urgent threat to the maritime transport sector (and sustainable development generally), which can be addressed in part through efforts to decarbonise and adapt the sector in accordance with the 2015 Paris Agreement supported by the Talanoa Dialogue and other platforms.

4) PICs have been central to the work of the International Maritime Organisation (IMO) which in April 2018 set an initial decarbonisation target for international shipping of at least 50% by 2050. This target is a positive step but remains inconsistent with the level of ambition required to limit climate change to below 1.5°C or even 2°C. Fiji and RMI are asking the region to commit to an initial emissions reduction target for Pacific shipping of 40% by 2030, and full decarbonisation by 2050.

5) Since the IMO target was agreed several major industry leaders such as Maersk, MAN and Wartsila have committed to carbon neutrality by 2050. Leaders such as Norway are demonstrating that domestic shipping can also match step. Innovative developments are increasing at speed and scale in alternative fuels, new designs and technology, renewable energy, operational efficiency and carbon financing. There is a real danger that if the Pacific does not join this transition it will incur increasing costs to maintain stranded assets dependent on imported fuels, subject to increasing carbon charges.

6) Transportation and mobility are cross-cutting issues central to the sustainable development of PICs. Domestic ferries and inter-PIC transport vessels are commonly old, fuel inefficient and unsafe, functioning as critical links between remote destinations. Shipping within and between PICs is the most expensive per unit distance and per capita in the world. PICs are precariously dependent on imported fossil fuels raising critical issues of fuel price vulnerability and security of supply. A substantive investment is needed immediately if a transformation to more appropriate, clean and affordable shipping—domestic and international—is to be effected at scale and speed across the region.

7) The government delegations present at the Pacific Islands Transport Forum were encouraged to endorse efforts to secure Green Climate Fund (GCF) investment at this scale, including: preparation by June 2019 of a Financing Roadmap for Sustainable Sea Transport including a 10-Year Regional Work Programme, and submission to the GCF of a formal project proposal Concept Note by Dec. 2019.

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1 A more detailed explanation of the significant benefits of a sustainable, resilient and low-carbon transition is available in the attached paper tabled at the Pacific Islands Transport Forum in November 2018.
ANNEX 2  Financing a Large Scale Transition Proposal document (cont’d)

Financing the transition

1) A regional transition to sustainable, resilient and decarbonised sea transport will require substantial investment. In comparison to other major economic sectors, investment in the sustainable development (including climate change mitigation and adaptation) of sea transport for PICs has been extremely limited to date. As a first step, willing Pacific Island countries will convene in Suva in May 2019 to discuss and commit to a Pacific Island partnership. The Government of Fiji and regional partners are considering a Blue Shipping Bonds issue to finance maritime transport projects as part of a wider portfolio of investments in the transition to a sustainable ocean economy. The cost of this financing could be significantly reduced by guarantees, grants, or highly concessional instruments supported by development partners.

2) Large-scale financial investment in sustainable sea transport will require input from diverse sources, following a blended finance approach, catalysed in the short and medium term by both bilateral donor assistance, and the issuance of a guaranteed Blue Bond. A key subsequent step will be the development of proposals for a large regional investment (in the order of USD 100 million) from the GCF. This would allow for an integrated programme portfolio of both grant and revolving loan modalities targeting public and private sectors and all scales of shipping from village to inter-country.

3) The investment of USD 2 billion into the electricity sector under the Pacific Energy Summits since 2012 provides a precedent for such international cooperation. A blended finance approach for shipping would be consistent with the 2030 Agenda for Sustainable Development, Paris Agreement on Climate Change regional NDGs, the SAMOA Pathway, and Framework for Resilient Development in the Pacific. Support for this approach has been well signalled by the UN agencies (UNCTAD, WFP, UNESCO, UNESCAP) and regional agencies including USP, SPC and PIFS (SIS secretariat).

Priority activities and 10-Year Work Programme

1 Sea transport infrastructure development and deployment—including a proof of concept phase (5 years) and pilot project phase (5 years) with a holistic ‘whole of sector’ focus covering:

- all relevant vessel types (e.g. fishing, cargo, and passenger), efficient and sustainable hull design for vessels, and low-carbon energy propulsion.

- land-sea inter-connections and maritime support services, including climate-resilient ports, and recharging and sustainable power generation infrastructure.

- maritime manufacturing, ship construction and maintenance, including both retrofits and new build vessels, all capable of increasing efficiency upgrades as new technologies come on-stream.

2 The infrastructure development and deployment programme would feature a coordinated portfolio of country-driven projects, designed in accordance with national and regional priorities.

3 Business and entrepreneurship finance facility—offering loans, guarantees, and equity investment in small-to-medium scale enterprises located in PICs, for aligned commercial activity.

4 Policy incentives and implementation programme—focusing on review, co-development and implementation of policy frameworks for sustainable and low-carbon sea transport, including an integrated and holistic package of country-level and regional initiatives e.g. fiscal measures, infrastructure planning processes, community development programmes, and maritime regulation.

5 Regional Centre of Excellence for Sustainable Sea Transport—building on the leadership shown by the Micronesian Center for Sustainable Transport (MCST) and the IMO–EU Maritime Technology Cooperation Centre (MTCC) with support from international partners to establish a decentralised regional institution focusing on locally-relevant research and technology development, and development and delivery of training and implementation programmes with particular attention devoted to the creation of opportunities for women and marginalised groups.
Q. Is it possible to decarbonize?

A. Yes,

a. technically possible to achieve close to total decarbonisation of shipping.

b. However, 3 other critical factors are needed:
   • Full political commitment by nation states
   • Full operational commitment by Industry
   • A financial enabling environment
New CMA CGM flagship so efficient it can save $20,000 every sail

By Mike Wackett   30/01/2018

The CMA CGM Antoine De Saint Exupery, delivered on Friday, will burn 25% less fuel due to its technologically advanced engine and optimised water

World’s first hybrid powered cruise ship completes first sea trials

The world’s first hybrid cruise ship, Hurtigruten’s MS Roald Amundsen, will set sail on her maiden voyage this year
Older, gas-guzzling box ships bound for scrapyards as IMO 2020 looms

By Mike Wackett 19/03/2019

With the IMO 2020 low-sulphur fuel regulations looming, containership owners are keen to offload as many older gas-guzzling vessels as possible, with the current high scrapping rates providing added incentive.

Norsepower Rotor Sails Issued First-Ever Design Type Approval for Onboard Wind Propulsion

March 6, 2019 by Photonoto

Norsepower is pleased to announce today that the Finnish classification society Det Norske Veritas (DNV) has issued the world’s first type approval for onboard wind propulsion systems. The approval covers Norsepower’s full range of rotor sails.

Maraek Pelican with Norsepower Rotor Sails installed. Image via Marlink Tankers

Finnish wind energy technology group Norsepower announced Tuesday that its innovative Rotor Sail Solution has received the first-ever type approval design certificate granted to an auxiliary wind propulsion system onboard a commercial ship.
Why cargo ships might (literally) sail the high seas again

Towards a zero-emission maritime city journey

Beyond Helsinki’s stunning oceanic horizon lies a myriad of hidden, unspoiled islands just waiting to be explored. A mosaic of narrow channels and passages the archipelago is a sight to behold from the city’s coastline and yet it is only enjoyed up-front by the privileged few who have access to private boats. With the help of the City of Helsinki’s Maritime Strategy Project, this is about to change.
SHIPPING CAN REDUCE CLIMATE POLLUTION AND DRAW INVESTMENT INTO DEVELOPING COUNTRIES

Thu, 02 May 2019
By Marie Hubatova

International shipping can meet its target of at least halving its emissions by 2050, and can unleash trillions of dollars of investment opportunities in sustainable industrial infrastructure – particularly in developing countries – by using clean fuel such as “green” ammonia, as long as the fuel is produced using untapped renewable potential without increasing fossil fuel use, according to a new paper from Environmental Defense Fund.

Norway kick-starts collaboration on zero-carbon trade

Norway convened a high-level panel this week to boost collaboration on creating zero-carbon trade and transport sectors, as part of the Global Climate Action Summit in San Francisco.

Environment ministers from Norway and the Marshall Islands will be speaking with leaders from clean-tech start-ups, regional and local government, and the largest shipping company in the world.

The most efficient way to decarbonise the shipping sector

A new report, Roadmap to Decarbonising European Shipping, identifies a mix of three technologies – batteries, hydrogen, and ammonia – as being “by far the most efficient way to decarbonise the sector.” Even so, to satisfy demand from EU’s carbon-free
Swedish shipping industry to go carbon-neutral by 2045

The Swedish shipping sector is planning to end the use of fossil fuels in the country by 2045, meeting national climate goals. Specifically, the Swedish Shipowners' Association is creating plans to achieve zero GHG emissions, along with fossil-free Sweden, a government initiative.

ENVIRONMENT

THREE KEY SOLUTIONS FOR DECARBONISING SHIPPING

NON-PROFIT GROUP TRANSPORT & ENVIRONMENT
RECENTLY PUBLISHED A REPORT ON THE BEST WAYS FOR THE SHIPPING INDUSTRY TO DECARBONISE ITS OPERATIONS, IDENTIFYING BATTERIES, HYDROGEN AND AMMONIA AS KEY. ADELE BERTI FINDS OUT MORE

Sandia-led team designs feasible hydrogen fuel-cell coastal research vessel; implications for large hydrogen-fueled vessels

Sandia National Laboratories partnered with the Scripps Institution of Oceanography, the naval architect firm Giusti and the class society DNV GL to assess the technical, regulatory and economic feasibility of a hydrogen fuel-cell coastal research vessel.

A report released this month shows it is technically and economically feasible to build a vessel in a manner consistent with marine regulations. The project team nicknamed the vessel the “Zero-V,” short for zero-emissions research vessel.

How Hydrogen Could Help Clean Up the Global Shipping Industry

With their greenhouse gas emissions rising and regulations looming, shipping companies that transport nearly all of the world’s goods are looking at renewable fuel sources to power container ships.
ANNEX 3  Presentation slides – Mr. Kushaal Raj and Dr. Peter Nuttall (cont’d)

New electric ferry for Wellington

Wellington Harbour Ferry to go fully electric

The sustainable future of waterborne passenger transport will soon become a reality on Wellington Harbour following plans launched today by the East by West Wellington Harbour Ferry service, for a fully electric, zero-emission ferry.

The $4 million 19m long 135 passenger ferry will begin construction early next year for completion in December 2019.

East by West Managing Director Jeremy Ward said today the new vessel will be New Zealand’s first all-electric, carbon-free, zero-emission passenger ferry and the first in the Southern Hemisphere.

Solomons students rescued at sea

20 pm on 1 February 2018

Twenty Solomon Islands students have been rescued after the boat they were on broke down and left them stranded at sea for two days.

Missing Kiribati ferry: Australia and US join search for survivors

Up to 100 people are feared to have been on Pacific island vessel when it capsized

Australian and American rescue teams have joined the search for survivors from the Kiribati ferry that capsized in the central Pacific more than a week ago.
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Press Release: Wind propulsion, an essential tool in shipping’s decarbonisation efforts

PRESS RELEASE: The International Windship Association, along with its 40-plus member companies and organisations is positioned to help the shipping industry meet urgent and ambitious carbon reduction targets to be set by the International Maritime Organization (IMO) at MEPC72 this week. There is a wide range of wind-assist and primary wind propulsion technology solutions that offer between 10-30% savings for retrofits, and up to 50% on smaller new built fully optimised vessels.

Press release: Norway’s new emission free cruise ship concept

The cruise industry is facing more stringent requirements and regulations to emissions. In partnership with leading cruise lines, Norwegian technology suppliers have now developed a concept for zero-emissions cruising.
Wind Energy – Soft Sails

Dystra - Ecoliner

B9 Ship

Neoliner

GreenHeart

CargoProa

Cargo Catamaran

GO SAIL CARGO

HOME ELECTRIC CLIPPER 100 ELECTRIC CLIPPER 64 SECRET 88 EX CONTACT
Wind Energy – Fixed Sails

Tokyo Wind Challenger
Shin Aitoch Maru
Windship
OCIUS Wind Solar

Wind Energy – Rotors

Alycone
Wind Hybrid Coaster
Flensburg UniCat
Baden Baden
Barbara
E Ship 1
Wind Energy – Kite Sails

SkySails GmbH

KiteShip of Martinez

Solar Energy

- Major advances in electricity land based use and electric motor technology.

- Potential for short range transport especially passenger and tourism – OCIUS = commercial proof of concept.

- Potential for auxiliary propulsion to wind powered propulsion – battery storage major limiter.

- Potential for ancillary onboard power – especially freezers and in port power for small scale ships.

Solar Sailor/OICUS

ECO Marine Power

CRAIN Technology
Ships are the lifeline of our maritime island world.

Shipping is the last sector to decarbonize

We need this happen at all levels – from the global to the village

The Pacific led the IMO this month calling for emissions targets

The Pacific has the highest transport costs in the world

We have the worst ships
Sea Bridge 1 - Hybrid Sail

32m Pacific disaster response vessel

Fully equipped hospital /dental/eye care clinic

20,000 litre water maker/50 ton emergency supplies

20 medical/para medics
Cost-effectiveness of energy-efficiency measures

Some examples of technology innovations expected to be adopted through effective EEDI and SEEMP implementation include speed reduction, weather routing, use of auxiliary power and a focus on aerodynamics (see Figure 1).
Wingship offers a potential solution

No runway required – 50 pax, 500km range, 200 km/hr

What is a Wingship?
A boat that flies!
How Hydrogen Could Help Clean Up the Global Shipping Industry

With their greenhouse gas emissions rising and regulations looming, shipping companies that transport nearly all of the world’s goods are looking at renewable fuel sources to power container ships.

[Image: The Hidroel, the world’s first hydrogen-powered passenger vessel, built by Belgian company Compagnie Maritime Belge. Credit: Compagnie Maritime Belge]

Related Articles
- The Fight for Greener Ships That May Help or Harm U.N. Climate Goals
- Arctic: Nations Agree to Work Toward Curbing Use of Heavy Fuel Oils
- Outlook 2018: The Big Ocean Issues and Trends to Watch
- Nears whale, Whales at Greatest Risk from Increasing Arctic Ship Traffic
- Tensions High as Nations Meet to Set Climate Plan for Global Shipping
- Looking for Girls at the Bottom of the Ocean
- Here’s What Can Be Done to Stop the Mounting Deaths of Whales

[Image: MT-FAST, an energy-saving device highly effective in reducing fuel consumption]
<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation and title</th>
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<tbody>
<tr>
<td>H.E. Albon Ishoda</td>
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<td>Mr. Andrew Irvin</td>
<td>Project Officer, MCST, USP</td>
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<td>Mr. Kushaal Raj</td>
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<td>Special Representative – Oceans, Ministry of Economy, Government of Fiji</td>
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<tr>
<td>Mr. Warwick Harris</td>
<td>Deputy Director, OEPPC, Government of Marshall Islands</td>
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Q. Is it possible to decarbonize?

A. Yes, technically possible to achieve close to total decarbonisation of shipping.

b. However, 3 other critical factors are needed:
   - Full political commitment by nation states
   - Full operational commitment by Industry
   - A financial enabling environment
Sustainable, resilient and low carbon sea transport for Pacific Island countries

REPUBLIC OF FIJI

REPUBLIC OF THE MARSHALL ISLANDS

**Financing a large-scale transition, May 2019.** Submitted by the Governments of Fiji, Marshall Islands and partners as a background paper for discussions at CAPP 19 amongst Pacific Islands.

**Summary**

1. The governments of Fiji and RMI have identified an urgent need for large-scale financial investment, to catalyse a region-wide transition to sustainable, resilient and low carbon shipping. They are calling on other Pacific Island countries (PICs) and key international partners to join a partnership for an initial blended finance package of $500m to fund domestic shipping and related infrastructure in 5-6 Pacific Island countries. We hope the final partnership will be announced at the UN Secretary General’s Climate Change Summit in September 2019. This proposal builds on the efforts previously endorsed by the Pacific Regional Energy and Transport Ministers in April 2017, by the 18th Micronesian Presidents’ Summit in February 2018 and the Pacific Island Transport Forum in November 2018.

**Priority activities and 10-Year Work Programme**

11. Sea transport infrastructure development and deployment—including a proof of concept phase (5 years) and pilot project phase (3 years) with a holistic ‘whole of sector’ focus covering:
   - all relevant vessel types (e.g. fishing, cargo, and passenger), efficient and sustainable hull design for vessels, and low-carbon energy propulsion.
   - land-sea inter-connections and maritime support services, including climate-resilient ports, and recharging and sustainable power generation infrastructure.
   - maritime manufacturing, ship construction and maintenance, including both retrofits and new build vessels, all capable of increasing efficiency upgrades as new technologies come on-stream.

The infrastructure development and deployment programme would feature a coordinated portfolio of country-driven projects, designed in accordance with national and regional priorities.

12. Business and entrepreneurship finance facility—including loans, guarantees, and equity investment in small-to-medium scale enterprises located in PICs, for aligned commercial activity.

13. Policy incentives and implementation programme—focusing on review, co-development and implementation of policy frameworks for sustainable and low-carbon sea transport, including an integrated and holistic package of country-level and regional initiatives e.g. fiscal measures, infrastructure planning processes, community development programmes, and maritime regulation.

14. Regional Centre of Excellence for Sustainable Sea Transport—building on the leadership shown by the Micronesian Center for Sustainable Transport (MCST) and the IMO–EU Maritime Technology Cooperation Centre (MTCC) with support from international partners to establish a decentralised regional institution focusing on locally-relevant research and technology development, and development and delivery of training and implementation programmes with particular attention devoted to the creation of opportunities for women and marginalised groups.
In line with the theme of this 3rd Climate Action Pacific Partnership (CAPP) Conference, “Decarbonise and build resilience now...the call from the Pacific”, this Talanoa aims to discuss a proposal on financing a large scale transition towards sustainable, resilient and low carbon sea transport for Pacific Island countries. There is a significant opportunity for the Pacific to collectively call for a major climate financing investment in the maritime transport sector to drive a transition of significant scale and speed. If action is not taken, there is a serious risk that we will be left behind with stranded diesel-powered assets and ever-increasing fuel and carbon penalties.

Facilitators: H.E. Ambassador Ishoda Mr. Taholo Kami
Ambassador of RMI to Fiji Special Advisor, Ocean, Government of Fiji

Introduction/Welcome: Mr. Taholo Kami 5 min.
Opening remarks: Hon. David Paul, Minister in Assistance to the President, RMI 5 min.
Summary of Proposal: Mr. Kushail Raj, Oceans Specialist, Government of Fiji /Dr. Peter Nuttall, Scientific and Technical Advisor Micronesia Center for Sustainable Transport University of the South Pacific 10 min.

International Experts:
- Dr. Bee Milligan, University of NSW, oceans and sustainable development policy specialist 15min.
- Dr. Sophie Palmer, University College London, KMPG. Shipping Finance and Blue Bonds Specialist
- Ms. Aoife O’Leary, Environmental Defense Fund, Senior Legal Manager

Ministerial Talanoa: H.E. Ambassador Ishoda/Mr. Taholo Kami Approx. 45 mins.
Summary/next steps: Mr. Taholo Kami 10 min.

13 May 2019 Holiday Inn Suva, Banyan Room 3pm-5pm

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