



# Transitioning Pacific Islands Maritime Transport

MICRONESIAN CENTER  
FOR SUSTAINABLE  
TRANSPORTATION



A joint collaboration  
between RMI Government  
and USP

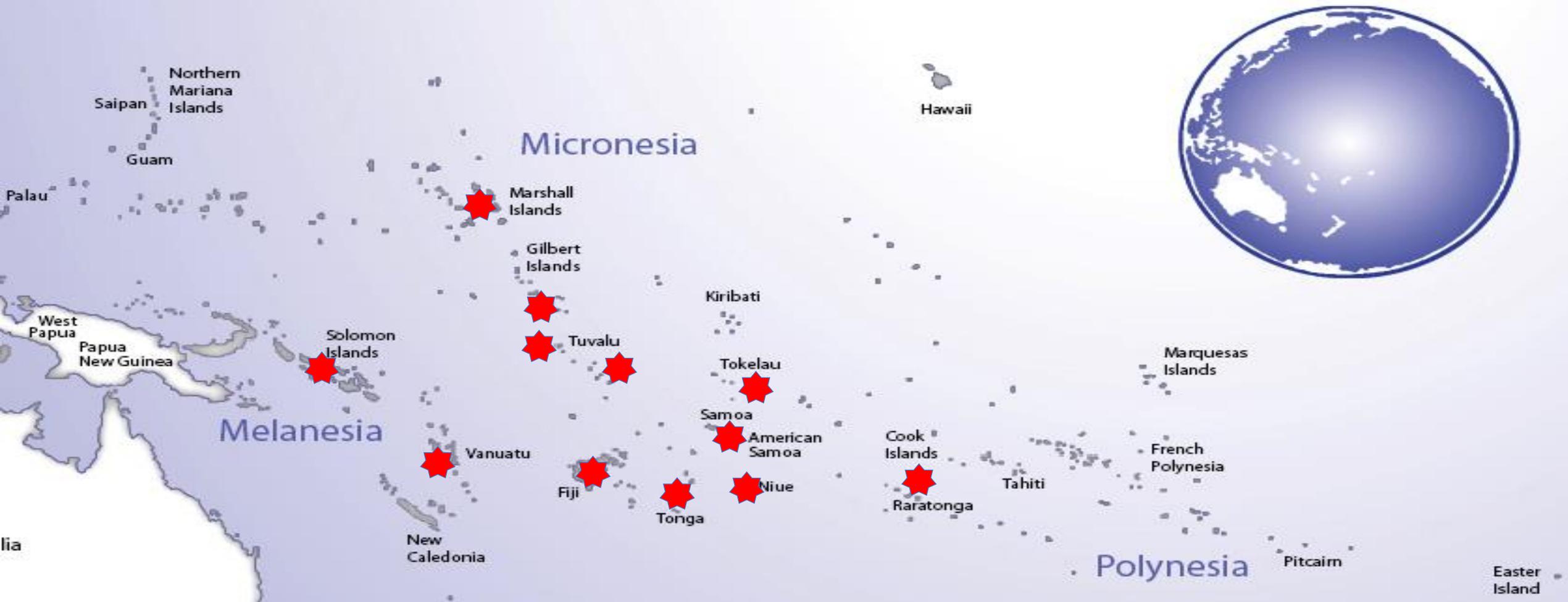


Celebrating the Pacific, Shaping its Future



Photo credit: © LUKASZ WARZEDCHA

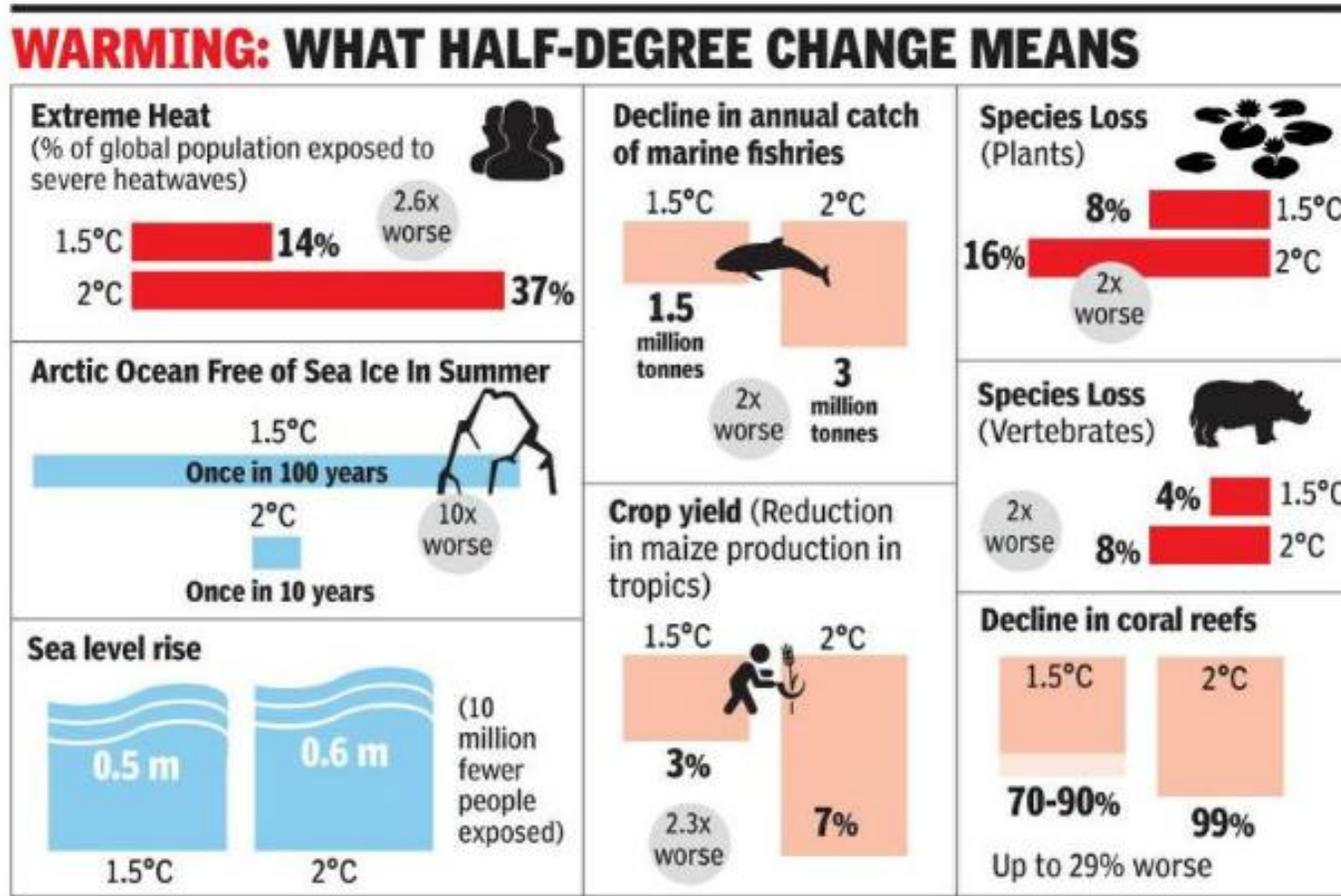
# Micronesian Center for Sustainable Transport



“We sweat and cry saltwater, so we know that the ocean is really in our blood” Teresia Teaiwa  
Over 25,000 islands spread over 33,000,000 km<sup>2</sup> of Ocean where land makes up 0.3% of EEZs



# Why the Pacific SIDS have committed to decarbonising shipping



## “Science has spoken”

The IPCC Special Report claims it's possible to meet no more than 1.5°C warming, provided nations together take “rapid and far reaching” transitions over next 10 yrs ...

## PACIFIC Pacific at forefront of shipping industry emissions reductions

From Dateline Pacific, 3:05 pm on 16 April 2018

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Pacific Island nations have been central to efforts to get the international shipping industry to commit to reducing greenhouse gas emissions.

More than 170 countries have struck a deal at the International Maritime Organization, or IMO, to halve emissions by 50 percent by 2050 compared to 2008 levels.

It's the first time the industry has committed to such a target.

### Pacific islanders: Shipping must comply with Paris climate goals

Published on 03/07/2017, 11:26am

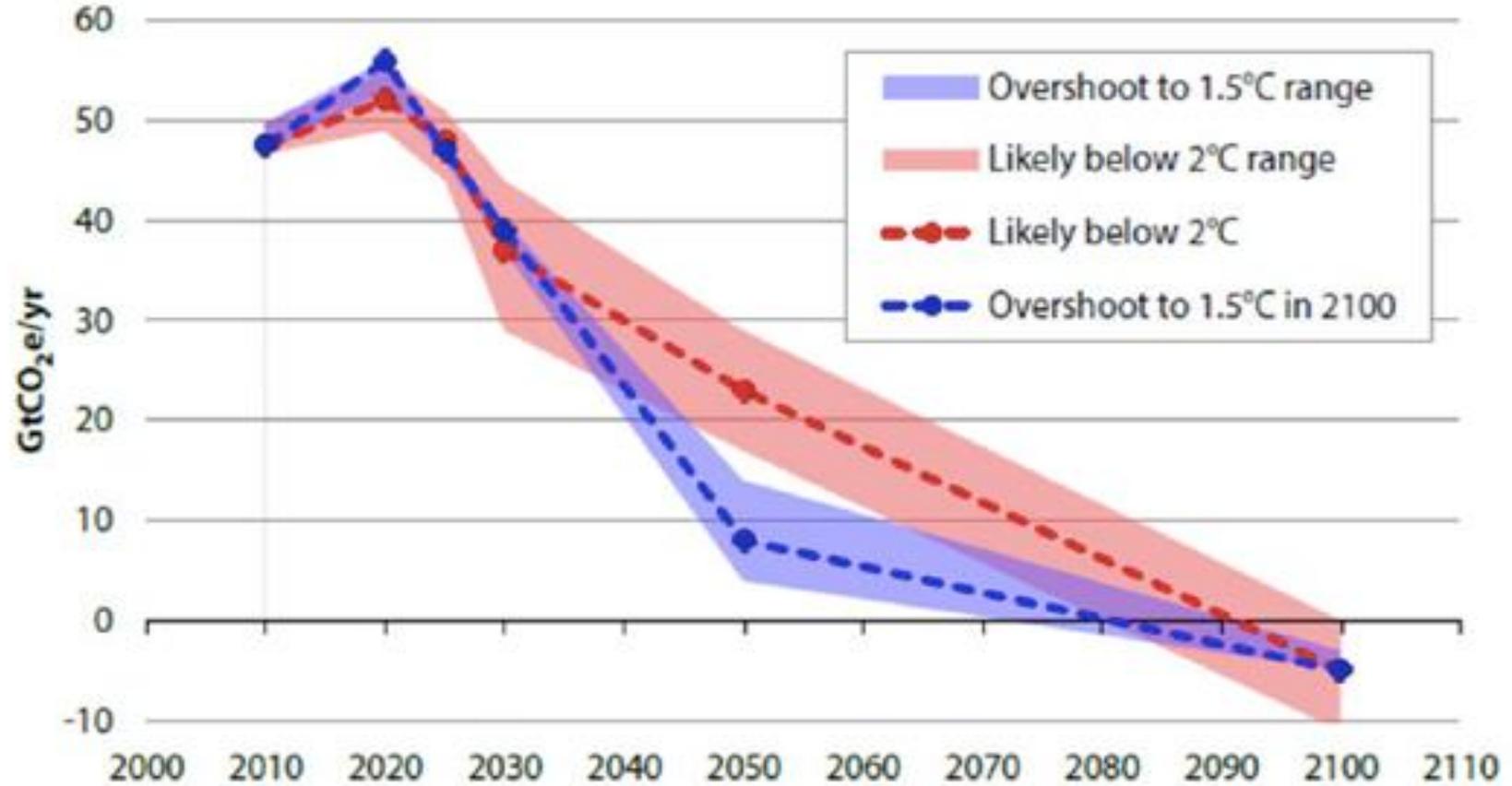
Representatives of four Pacific island nations join today at the IMO in London to ask the shipping industry to do its part to cut carbon emissions

Sponsors: GREEN CLIMATE FUND, PHILIPS

Pacific states call for emission reduction from shipping at MEPC

At the IMO MEPC 71 being held in London this week, a joint coalition of Pacific Island ministers addressed a global urge to the shipping industry to cut greenhouse gas emissions. The call was an urge towards IMO member states to limit global warming to 1.5 degrees celsius above pre-industrial levels.

# Why the Pacific is decarbonising domestic shipping



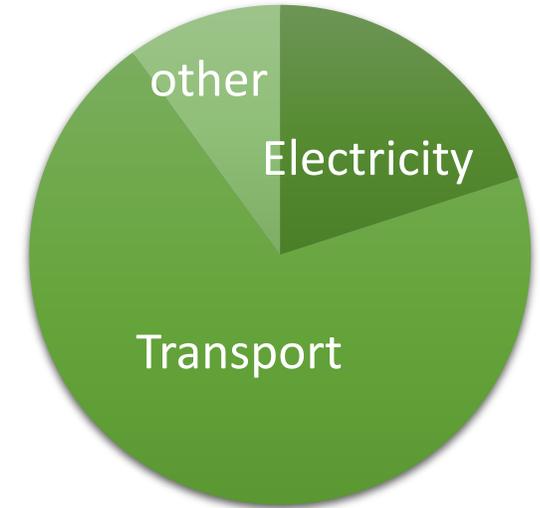
Comparison of likely global emissions pathways to achieve 1.5°C and 2°C (all GHGs)  
*UNEP (2016) The Emissions Gap Report*



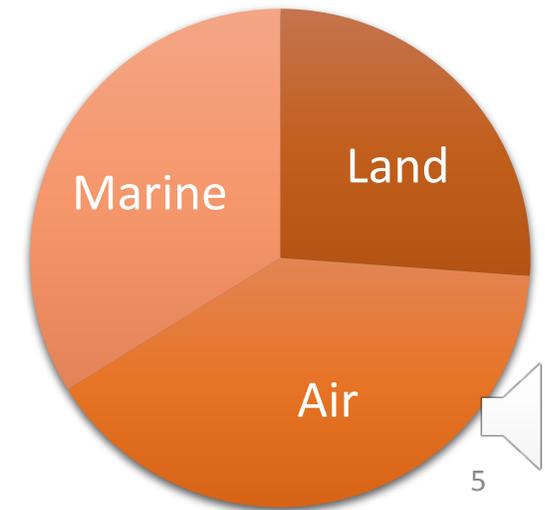
# Transport - largest fuel user for Pacific SIDS

- Transport uses most imported fuel – ~75% of regional totals.
- Sea then air are higher priority than land transport – shipping moves most goods.
- Long routes, minute narrow economies, imbalance in inward and outward loadings, financing barriers, high risks and high infrastructure costs.
- Pacific countries struggle to find long-term, sustainable, and cost-viable solutions for transport, even in periods of relatively low energy costs.
- Small boats of under 15m (outboard driven) are one of the single largest sub-sectors in terms of both fuel use and emissions

Imported Regional Fuel by Sector



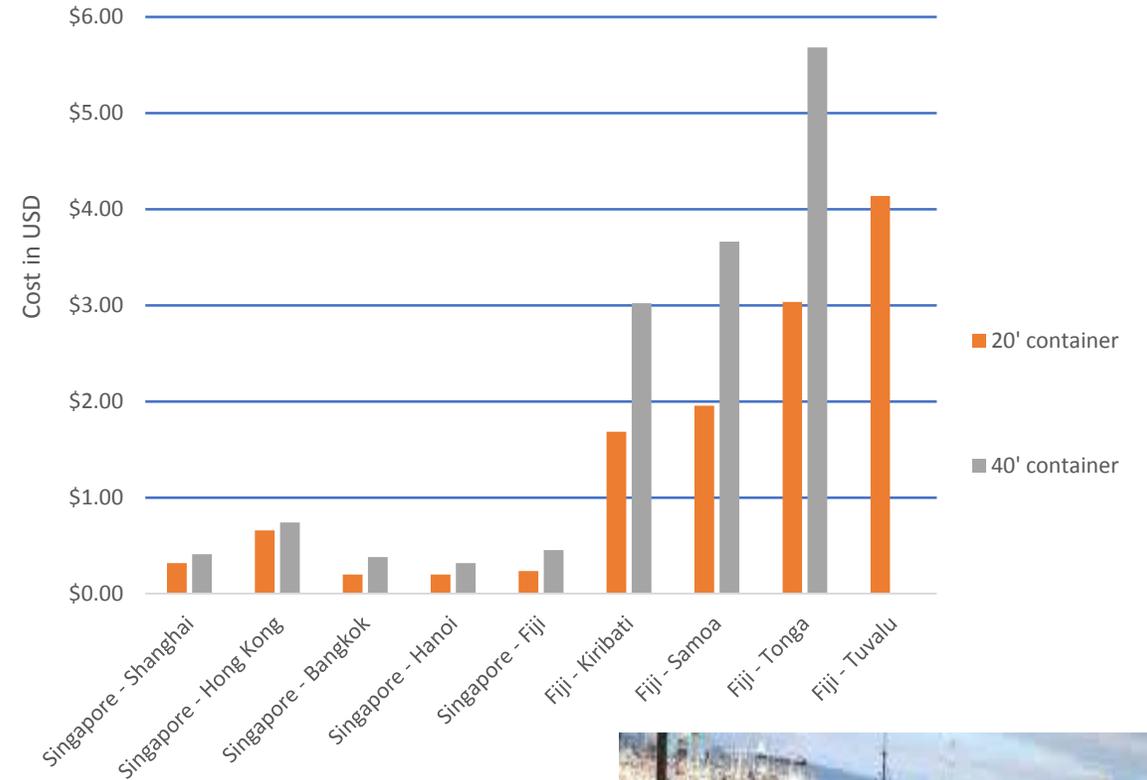
Transport Fuel by Sector (Fiji)



# Challenges & Opportunities

- The sea is our highway. Maritime transport is cross cutting.
- All maritime infrastructure is at sea level.
- Our shipping costs are already some of the highest in the world.
- A paradigm shift is required. But a paradigm shift requires enormous investment in capacity development across the sector.
- Decarbonisation offers numerous challenges but also positive opportunities.
- It has not received the same priority in policy, research or financing as other energy sub-sectors.

Average Cost per Nautical Mile



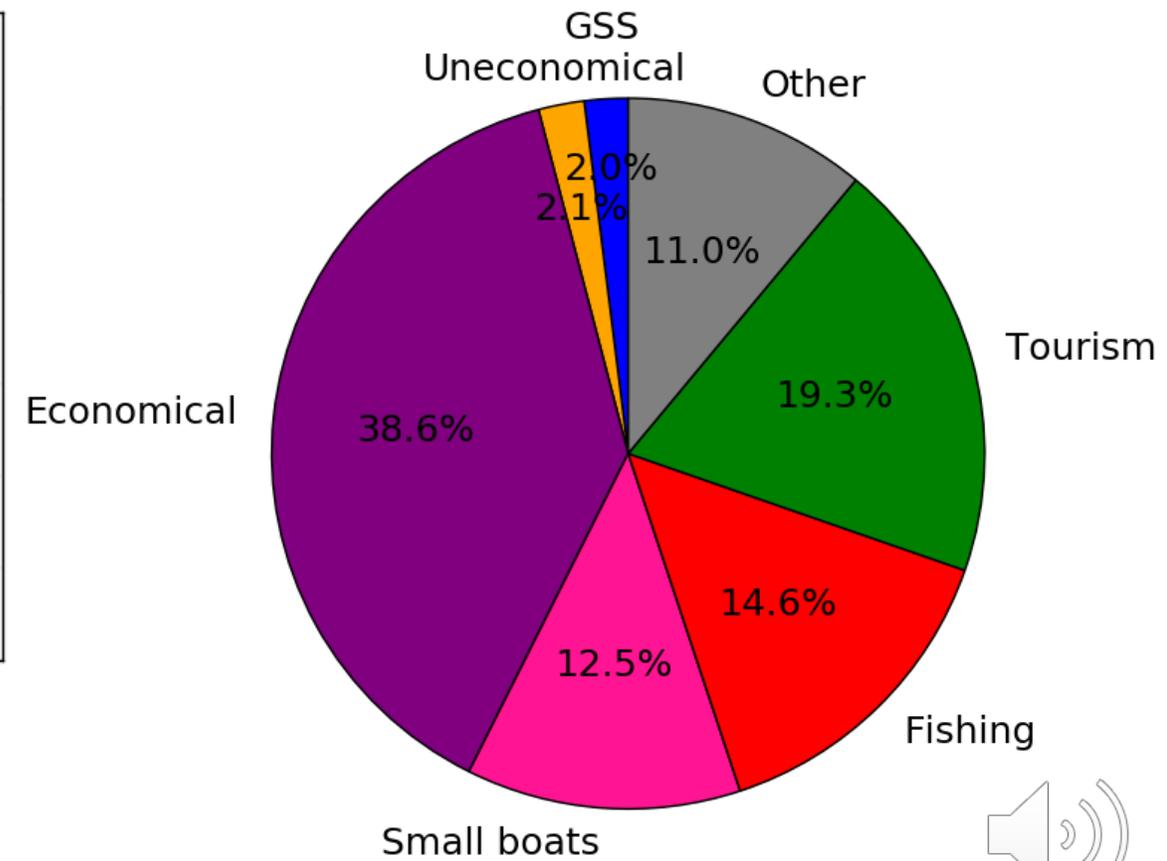
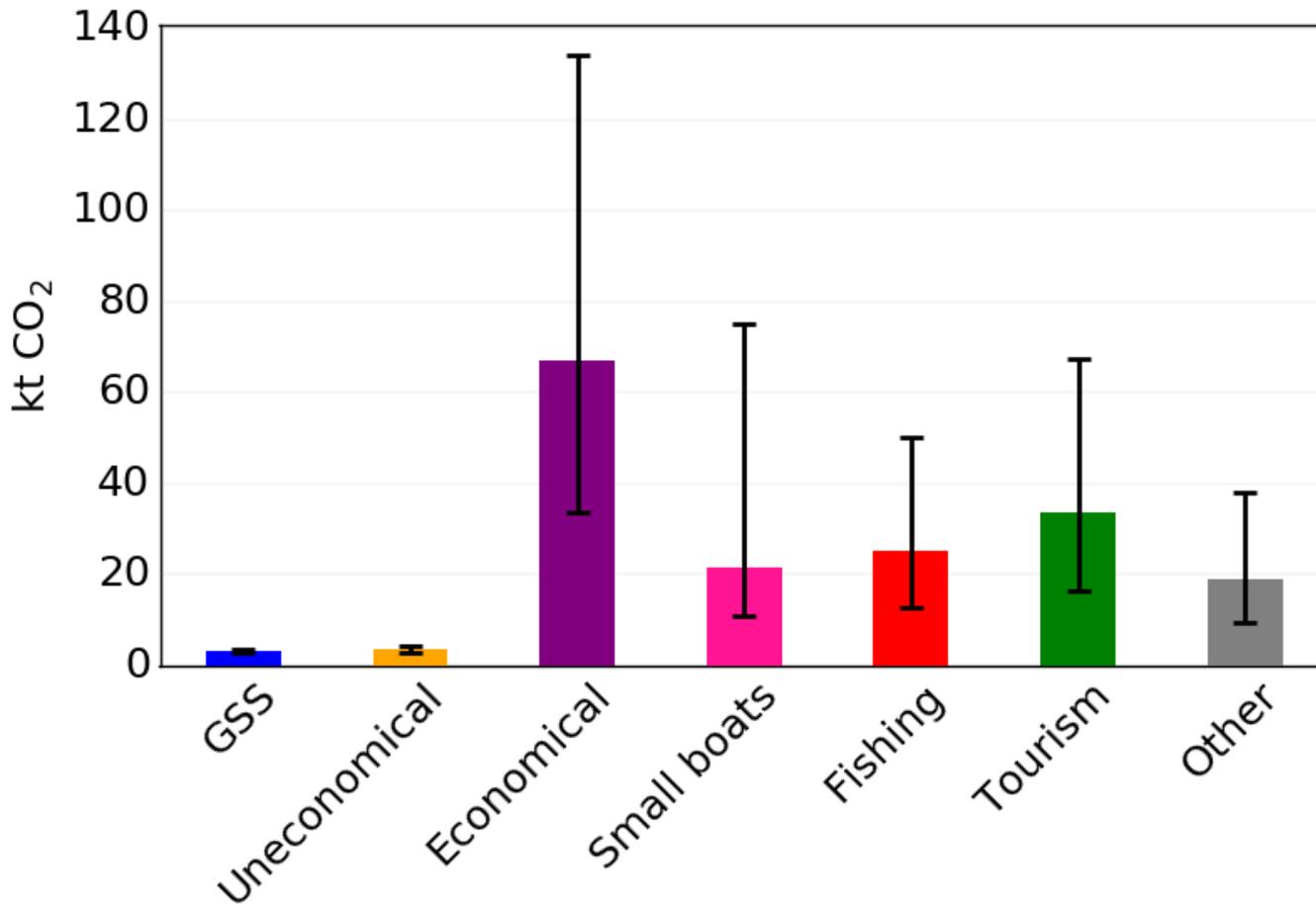
The school bus



Typical interisland vessel

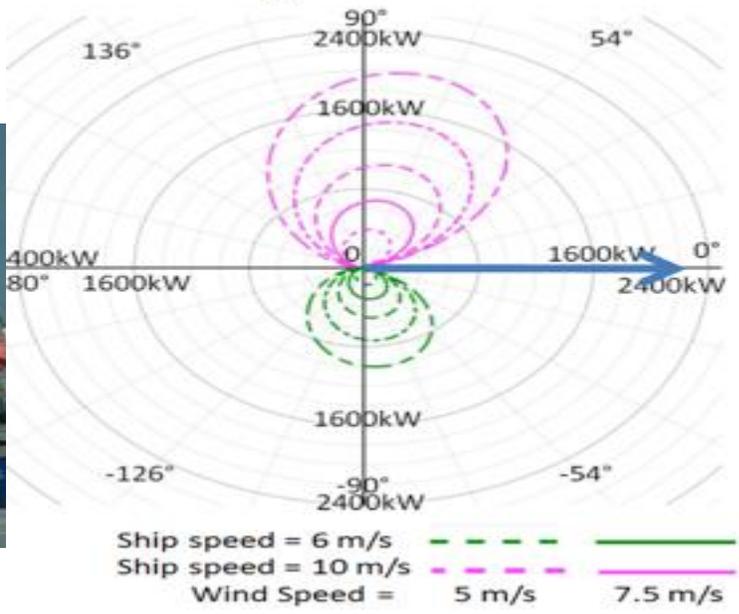
# Fiji's maritime transport emissions

- Total emissions are estimated at 174 Kilotonnes CO<sub>2</sub> in 2016.

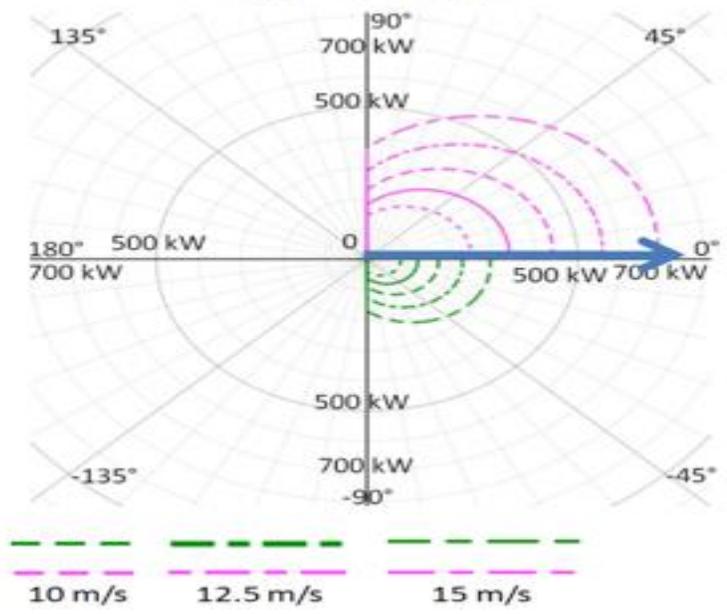




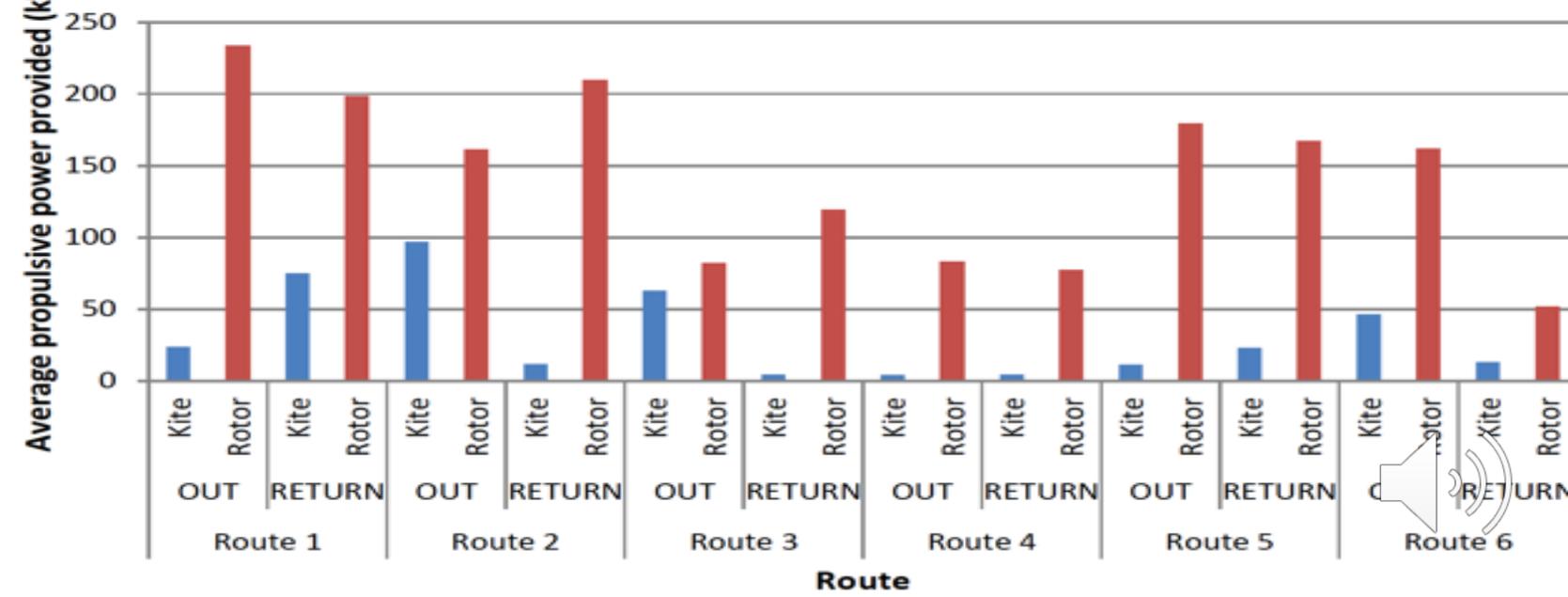
Towing kite 180m<sup>2</sup>



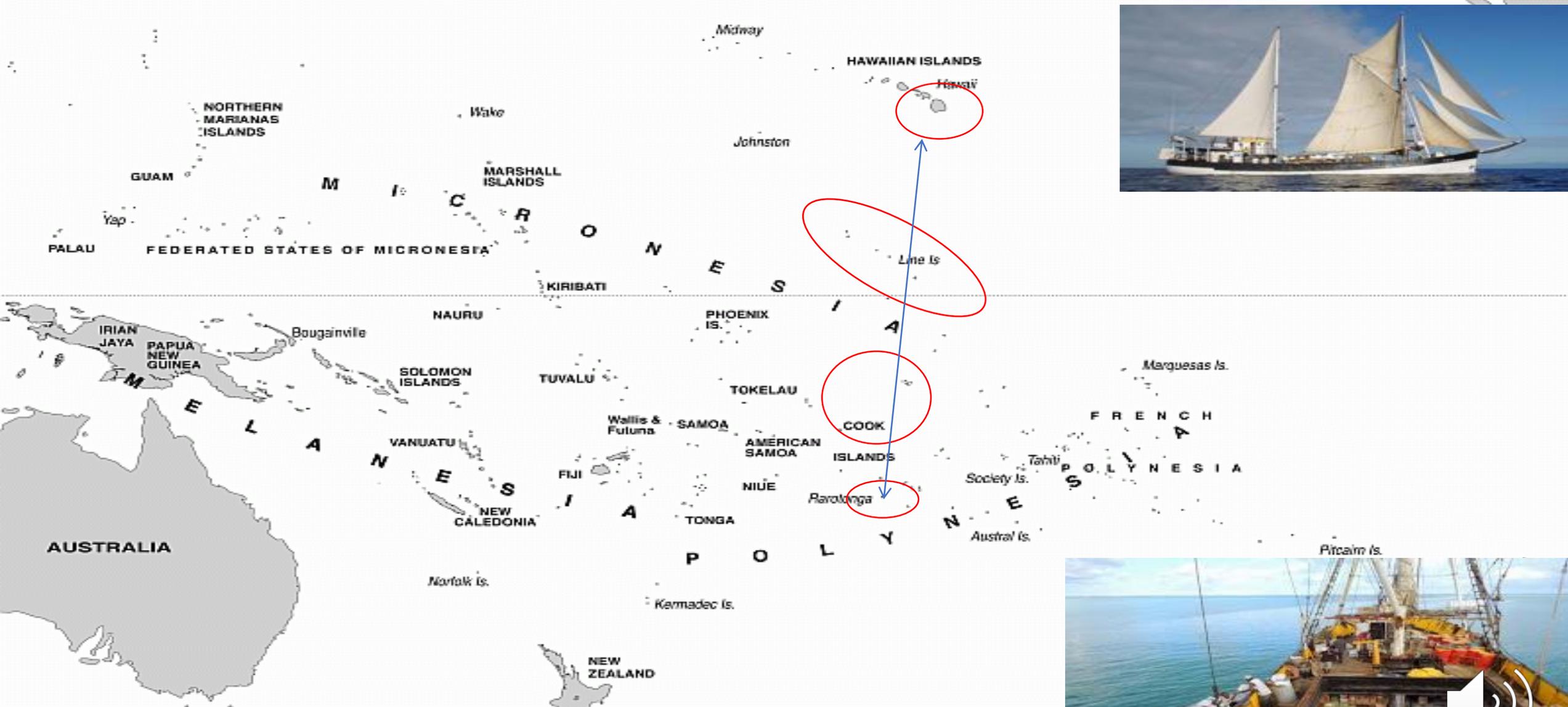
Flettner rotor



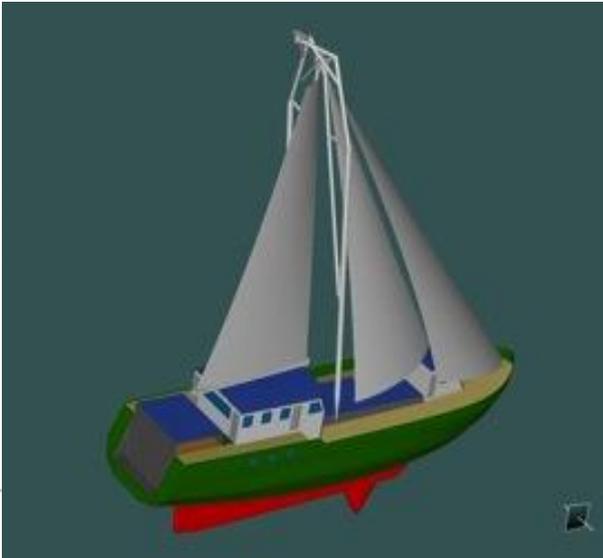
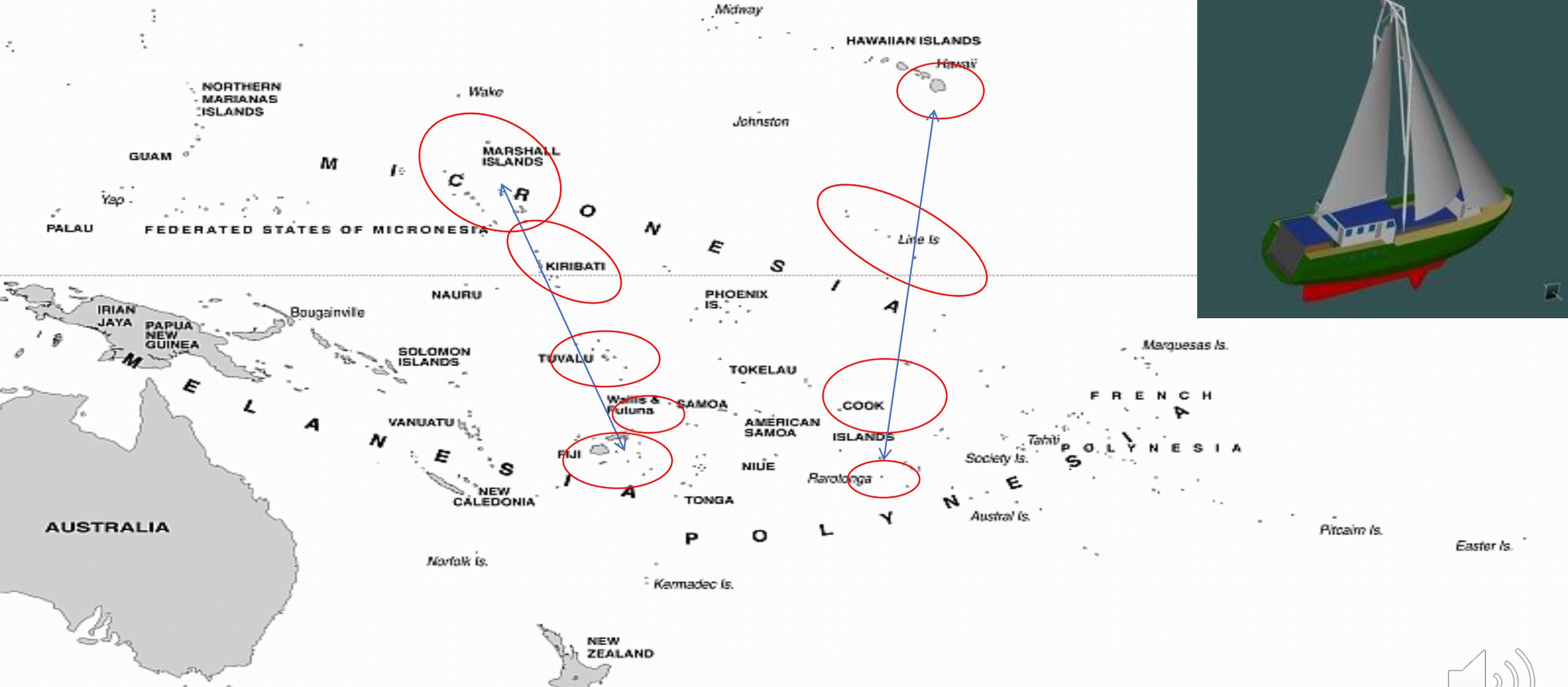
Propulsive power provided by Flettner rotor and towing kite for each route (Out & Return) averaged over 10 dates



# You can't have Green Growth in the Pacific without a transition to zero carbon shipping



# Research Collaboration with China Navigation Co.



# Transitioning to Low Carbon Shipping Module – Sustainable Sea Transport Solutions for SIDS: Pacific Island Countries Case Studies

Home > UNCTAD Sustainable Freight Transport and Finance Toolkit > Transitioning to Low Carbon Shipping Module – Sustainable Sea Transport Solutions for SIDS: Pacific Island Countries Case Studies

This module has been prepared to provide background and lessons learnt from the reef of experience for decision and policy makers developing strategies for Small Island Developing States (SIDS), seeking to transition their sea transport to low carbon options. We have focused on the situation as it exists for Pacific Island Countries but the information in this module has direct relevance to all SIDS and many Less Developed Countries (LDCs).

PRINT

This module contains eight chapters, each covering a separate theme. There are additional resource materials including PowerPoint presentations for each section, fact sheets which summarize key information and provide case examples, a glossary and list of acronyms, a reference list and bibliography, and links to useful websites.

You can access all chapters including additional resource materials by clicking on the chapters below. Alternatively, you can download the full module and the full appendix further down.



1. The International Shipping Context



2a. Sea Transport in the Context of Small Island Developing States



2b. Case Studies of Previous Pacific Trials and Research into Sustainable Sea Transport



3. The Potential for Renewable Energy for Sea Transport for SIDS



4. Options for Improving Energy Efficiency



5. Barriers for Sea Transport for SIDS



6. Current Initiatives - Best Practices



7. Conclusion

<https://unctadsftportal.org/sftftoolkit/transitioningtolowcarbonshippingmodule/>

<https://www.irena.org/publications/2015/Feb/Renewable-Energy-Options-for-Shipping>





# A WARM WELCOME TO THE PARTICIPANTS OF THE PACIFIC ISLANDS TRANSPORT FORUM & EXPO

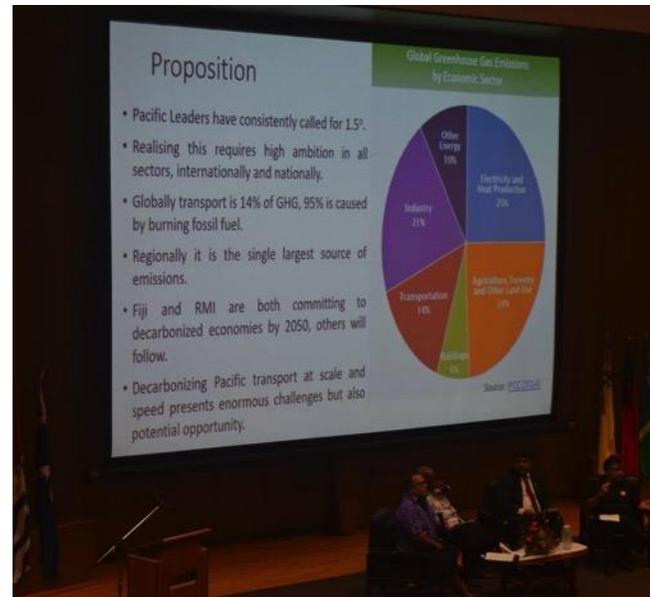
**“TURNING THE TIDE: DECARBONIZING PACIFIC TRANSPORT”**

**8-10 NOVEMBER 2018, USP LAUCALA CAMPUS, SUVA, FIJI**

- Opportunity for Pacific Islands transport sector to talanoa and set a regional vision for 2030 and 2050
- Covered all transport sub-sectors focussing on land and sea
- Expo and Research Fair

## Outcomes:

- Laucala Declaration
- Blended Financing Concept working group



# Vinaka Vaka Levu



## Links and Contacts:

**MCST webpage:** <https://mcst-rmiusp.org>

**Transport Forum:** <https://research.usp.ac.fj/pacific-islands-transport-forum-expo/>

**Maritime Webinar:** <https://research.usp.ac.fj/pacific-islands-transport-forum-expo/webinar/>

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