

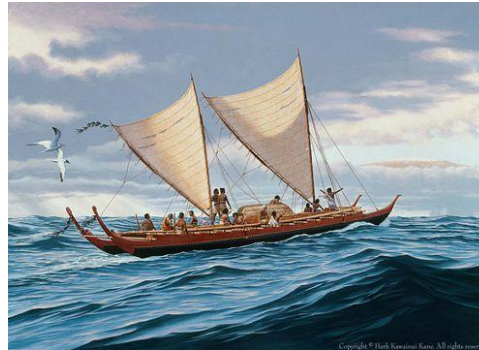


# Regional strategies to promote sustainable maritime connectivity in the Pacific

## Maritime Transport evolution in Pacific trades...

Since the late 1970s containerization has become the standard for merchandise trade in the Pacific, including temperature-controlled goods. Due to the nature of port services, payloads, and road networks, around 80 percent of containers are 20-foot equivalent units (TEU).

First master mariners



1100-900 BCE

Steamships / general cargo



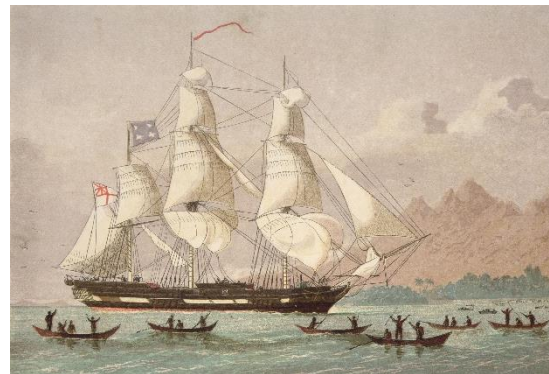
1870-1960's

Container Gantry cranes



2023+

17-1800's



Colonial mariners - trade

1970's - now



Containerization ships cranes



## The Story of Port Development in Pacific Island Trades



*Original site selection and design of Pacific Island ports created the need for modernisation of infrastructure*

- *1960-1980's replacing timber structures with concrete decks and piles to allow for greater volume of general cargo trade*
- *1980-2000's strengthening wharf structures, deepening channels and berth depths, allocating yard space for containerization*
- *2000 – 2022+ options for port expansion, addressing increasing ship sizes, competition for land, urban encroachment and options for port relocation or expansion*

*More recently, port development has emphasized the need for resilience to natural hazards and the severity of impacts due to climate change*



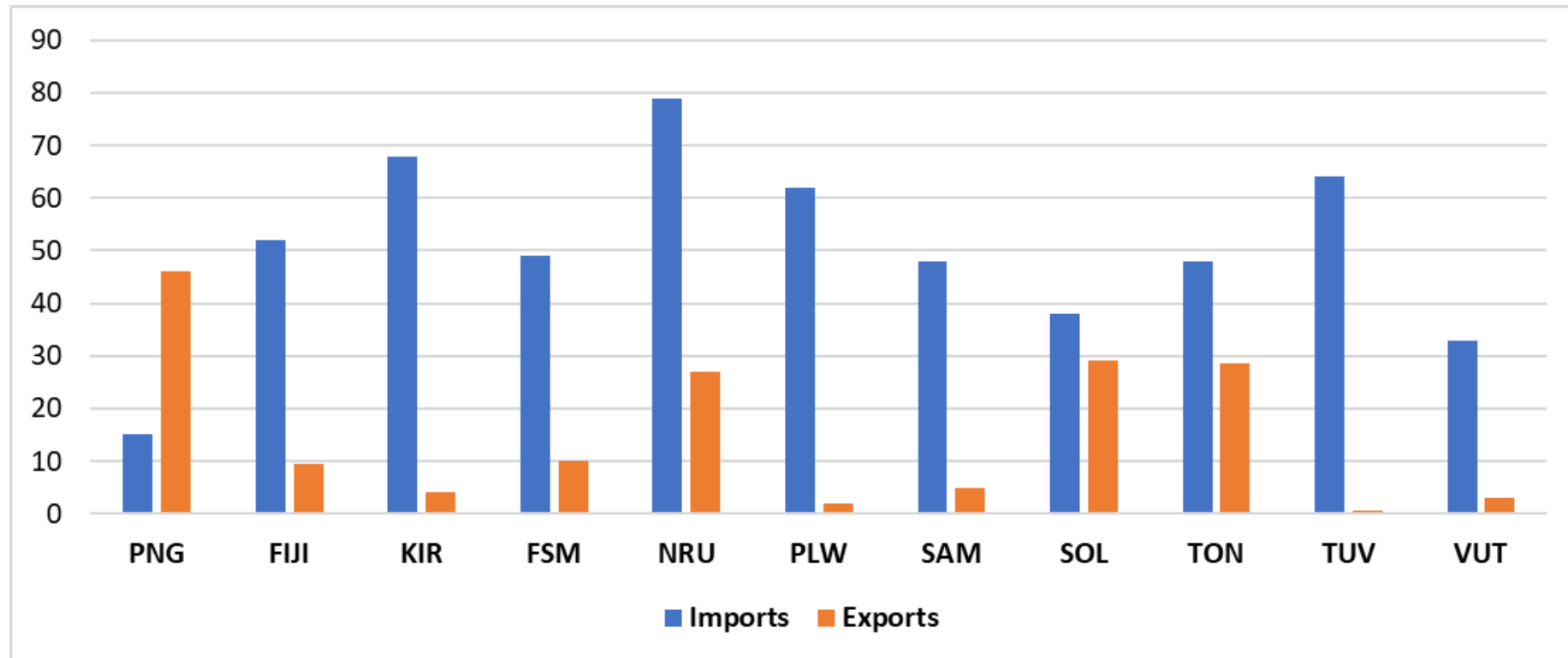
## Measuring the Scale of Imports at Pacific islands

- PICs are critically dependent on imports
- On average, imports of goods are about 60% of GDP for PIC's
  - Due to their small size and limited natural resources, PICs rely heavily on imports. Imports are dominated by foodstuffs (processed food, fresh produce, and meats), fuel, manufactured goods, motor vehicles and equipment, and building materials. Most imports 80-100% arrive by sea\*.
- Most imports end up in the principal cities and immediate towns where PIC urban populations are concentrated, and international ports are located.
  - Goods imported to outer islands are food staples, building and utility goods.
  - Nature & volume of imports determine PIC needs for international shipping



# Pacific Island Countries: Merchandise Imports and Exports, 2019

*(Percent of GDP)*



Source: Sources: National authorities; SPC; UNCTAD; IMF WEO. Arslanalp, Et al - IMF Working Paper WP/21/225 2021

Note: Exports exclude re-exports (e.g., re-export of fuel to foreign airlines/vessels, re-export of fish).

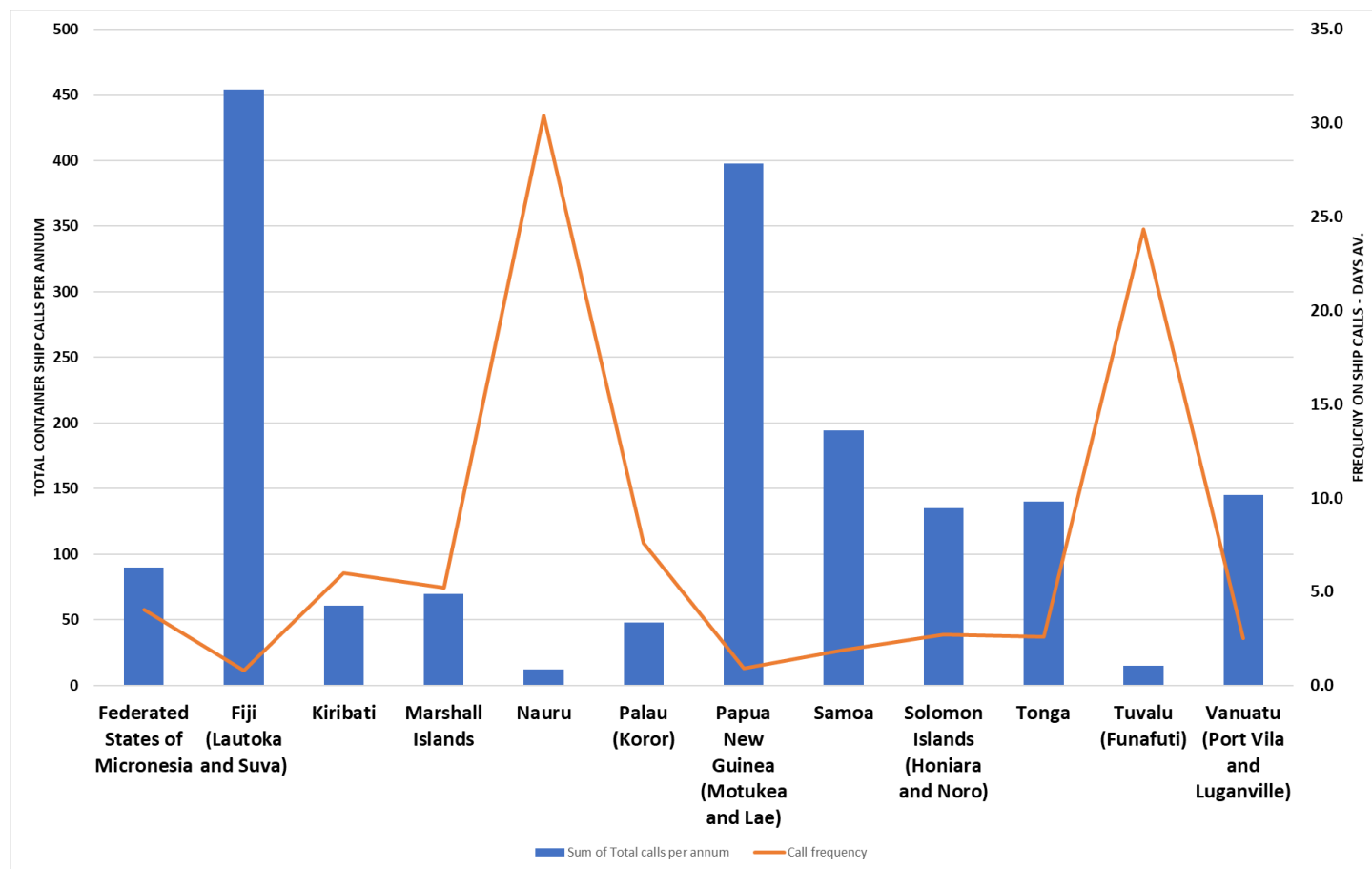


## Measuring the Scale of Exports at Pacific islands

- PICs Export potential is modest
- Main export volumes are mostly from larger PICs (PNG, Solomon Islands and Fiji), with few key commodities such as;
  - bulk minerals, liquified natural gas, logs/timber, crude palm oil, and sugar.
- Such bulk commodities are shipped in dedicated bulk carriers often at separate dedicated port facilities.
- Fish as a natural resource for most smaller PICs, revenue derived from licenses to distant water fishing fleets,
  - Approx. < 15% of PIC caught fish is processed and exported from PIC's concentrated from the larger countries of PNG, Fiji, and Solomon Is.



# Measuring Container Ship Calls at Pacific island Ports 2019



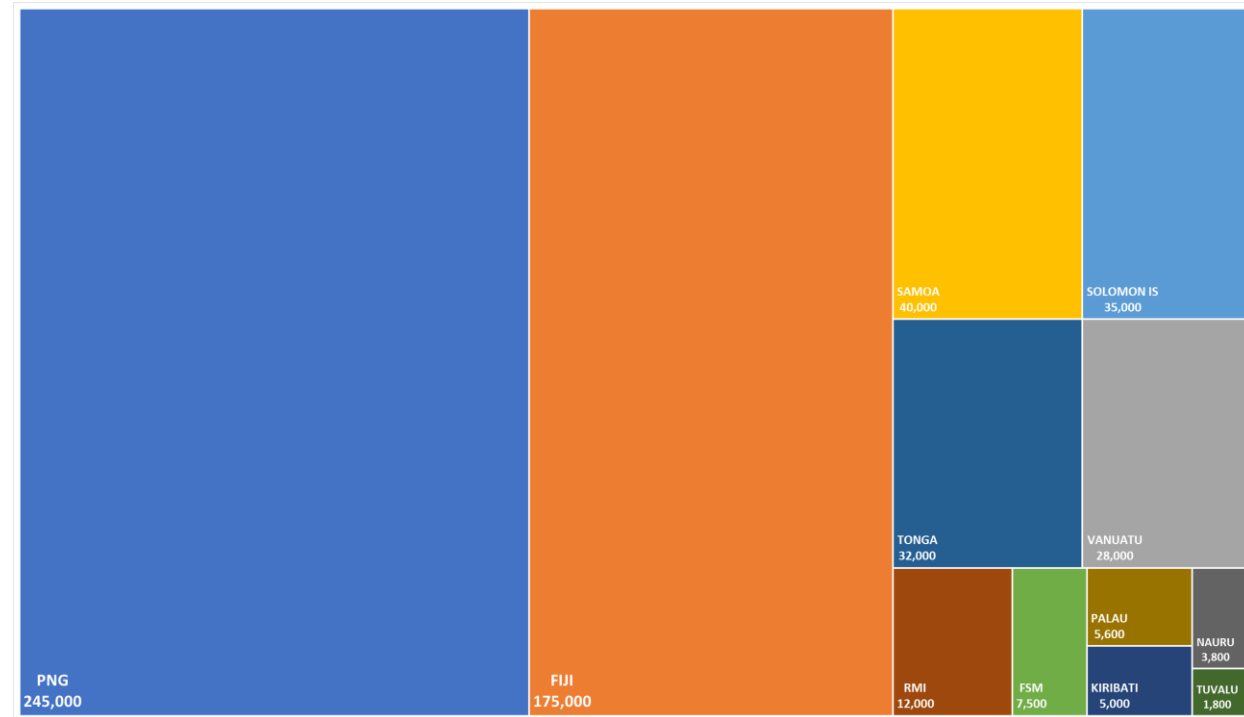
Source: Sources: Shipping line sailing schedules and AIS data from Marine Traffic records and Port Authority records statistics



## Measuring container volumes at Pacific island Ports 2019

### What are the Volumes?

- Combined TEU volumes are less than 600,000 TEU pa
- 60-90% are exported empty depending on country
- Gateway volume in eight countries < 35,000 TEU
- Fiji and PNG = 72% of total
- Growth is low



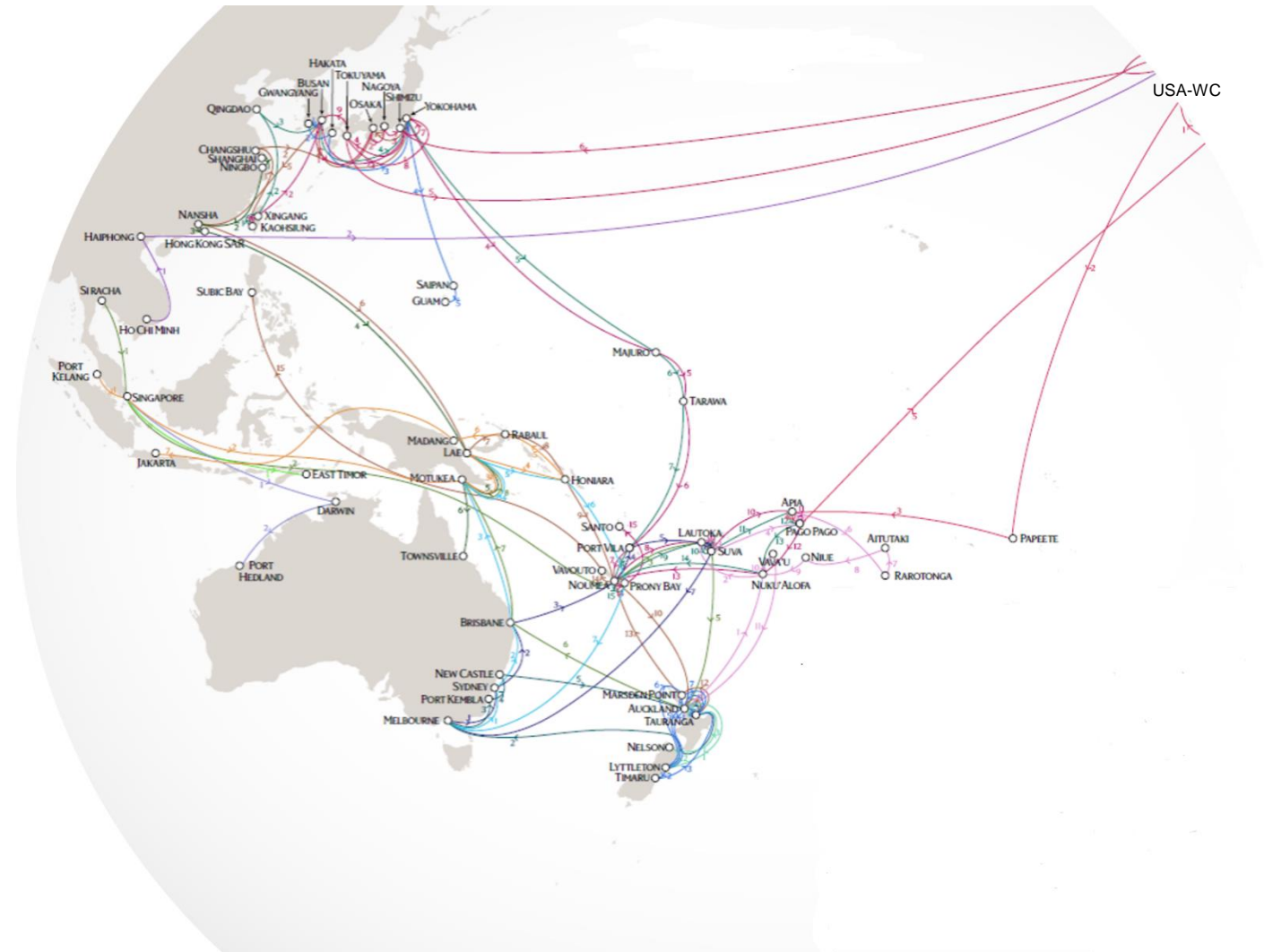
## Shipping Connectivity to Pacific Islands

There are Ten shipping organizations providing 25 scheduled international routes for the Pacific Islands region.

These schedules deploy fleet of 55 multipurpose vessels (MPVs) with an average nominal capacity of 1,425 TEU

The total one-way annual TEU capacity for the PIC region is estimated at 500,000 to 600,000 nominal TEU\*

- Swire Shipping = 44% total capacity  
Deploying 22 of the 55 MPVs.
- Sofrana ANL = 21% of capacity
- Kyowa/NYK = 10% capacity
- Maersk Line = 7%
- NPD L = 4.3%
- Balance = MEL/COSCO/NSL/Matson/BWS



\*Analysis Shipping Schedules 2021/22

## Shipping Capacity and Connectivity to Pacific Islands



Network of routes has evolved over several decades to a relatively mature commercial arrangement providing reliable services. Ships are deployed with capacity and operational characteristics to match trade volumes, service frequency, and physical port settings

**There are three service patterns in Pacific Islands shipping;**

- **Shuttle services** - shorter haul dedicated shipping routes that link Pacific Rim ports and larger PIC gateway ports
- **Multi-port long haul** services connecting multiple PICs to Pacific Rim ports on longer scheduled routes
- **Intra-regional** services that do not connect with Pacific Rim ports but travel between PIC ports only

## ARE there Deficiencies in Pacific Island Shipping

- **What does Int'l shipping services at Pacific Islands do well?**
  - Regular Schedule of networks that provide sufficient capacity
  - Modern MPV ships that are compliant with IMO regulations
  - Fleet of containers available at demand points globally
  - Port agents providing manifest clearance and operational support
- **What are challenges for Int'l shipping at Pacific Islands?**
  - Depth of water at some ports channels and alongside berths
  - Lack of competition – Consortium arrangements exist
  - Freight charges arguably are high and arguably reflect the cost of doing business
  - Low volumes of freight and low growth,
  - High imbalance imports v's exports = large vol empty containers
  - Low productivity at some ports with occasional congestion
  - Some ports have a single berth
  - Cruise ships take berth priority at Pacific Island ports



## THREE PILLARS – THREE QUESTIONS

### What are the disruptors ?

- Over / under capacity of shipping
- Declining volumes of freight
- Increased severe weather events
- Port capacity and accessibility
- Port productivity and compliance



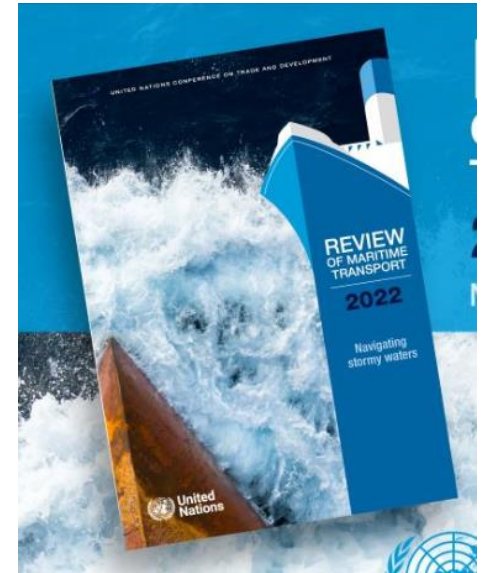
### What are the Solutions ?

- Cooperation between Pacific states
- Regional cooperation
- Build resilience and redundancy
- Master-planning to update & renew
- PPP / JV's – New cranage + equipment



## Pillars and Pathways to Support Sustainable Maritime Transport

- List and rank the disruptors for each Pacific Island state
- Establish a regional cooperative transport alliance
- Benchmark acceptable port productivity standards
- Revitalize export opportunities for each Pacific state
- Model scenarios for Port development @ each Pacific state
- Research and define deficiencies and build consensus:
  - Shared information on sustainable maritime connectivity, in close collaboration with the key global and regional stakeholders
  - Intergovernmental Group of Experts on maritime transport
  - Promote private sector management & operations
  - Asset maintenance and renewal and master-planning





**Thank you for your attention!**