

Biosecurity strategies for sustainable sea transport in the Pacific

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“I attended a regional transport meeting in July last year where PIFS and SPC were pushing trade, and the Niue delegation were emphatic that increased trade should not threaten their biodiversity, particularly staple food crops, and that empowerment of biosecurity should be a pre-requisite otherwise they didn't want the international trade” A Newell

- Shipping is the most efficient and cost-effective method of goods transportation in the south Pacific region and in the entire world
- Merits: Cheap, quick, compatible
- Demerits: invites various problems including the Biosecurity
- Natural first line of defence – Sea water, and Biosecurity could be used as a second line of defense

- Weak trade and transport logistics - a key factor constraining inter-regional and intra-regional trade growth in the Pacific
- Limited information is available on specific bottlenecks in Pacific countries
- Suggestion for improvement in competitiveness and trade and transport facilitation (TTF) performance in the areas of infrastructure, services, and procedures and processes



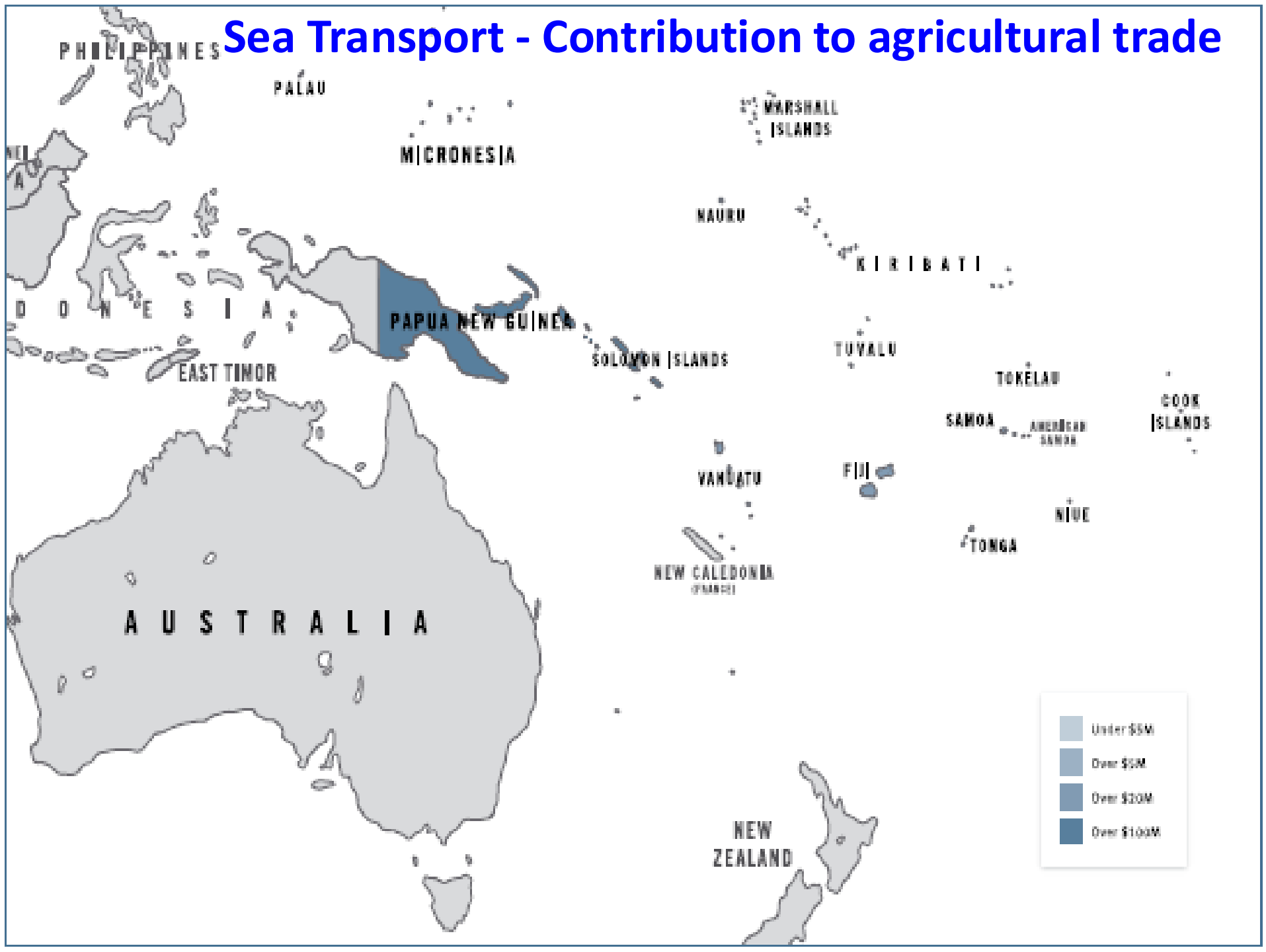
Sea Transport - Pacific island countries (PICs)

- History
- Contribution to agriculture trade
- Amount of trade through pacific
- Challenges
 - Fuel price
 - Technology
 - Infrastructure
 - **Biosecurity**

Sea transport - in the Pacific

- Sea-transport in Pacific is more than just movement of goods and people from one location to another
- Central to Pacific culture and epistemology
- Pacific Ocean supports some of the world's most important trade routes
- Most of the exports moving from west to east and from north to south are high-value-added manufactured goods

Sea Transport - Contribution to agricultural trade



- The Pacific Horticultural and Agricultural Market Access Program (PHAMA) - aims to increase exports of high value primary products from Pacific Island Countries (PICs)
- PHAMA participating countries –
 - Fiji, Samoa, Solomon Islands, Tonga and Vanuatu)
 - has a Market Access Working Group (MAWG) and a National Market Access Coordinator s

- Agriculture and tourism are the two productive sectors that offer the best opportunities for economic growth in several Pacific Island Countries (PICs)
- Main objective - the promotion of sustained and equitable growth

Objectives

- To examine the commonly intercepted New organisms intercepted and possible threats at the ports in Fiji and Samoa
- To identify the issues related to handling New organisms and support provided by Australia/New Zealand Biosecurity offices

Data collection and Information gathering

- Port visit
- Visit to quarantine office
- Website and published information
- Discussion with quarantine officers

The agriculture sector is an important sector for Pacific countries and accounts for between 12% and 39% of the national GDPs,

	Country	Agriculture share - GDP (%)
1	Cook Islands	5.1
2	Fiji	12.5
3	Samoa	12
4	Tonga	17.8
5	Vanuatu	19.7

Agricultural Commodities

- Bananas
- Taro
- Cassava
- Chilli
- Coconuts
- Coffee
- Eggplant
- Honey
- Pineapples
- Vanilla

Why Biosecurity in sea transport?

- Most island countries are free from pests and weeds, or have far fewer than mainland or developed countries like New Zealand, Australia, USA and other countries
- By adhering to strict biosecurity and quarantine standards, we can help to ensure that islands remain free from important pests or keep the number minimal

Pumpkin from Japan



Biosecurity Inspection

Quarantine and trade

- The country should have stringent quarantine requirements - to help protect human health and agricultural industries and its environment
- To be ensured that plants and plant materials as well as animals and animal materials imported are carefully checked to minimize any quarantine risks
- Proper import permits are issued by the country quarantine /biosecurity offices - the quarantine risks have been carefully examined



Many invasive organisms rely on humans/
vessels for dispersal across barriers like the
sea - unwittingly transport or hitchhikers



Samoa Quarantine

- Samoa Quarantine and Biosecurity Act 2005
- Several alien invasive species introduced – distributed through out the country
- Alien species threat to native species, agriculture and environment
- Export of fresh fruit is always been issue (restricted) – scaleinsects, mealybugs, thrips or aphids

- The general practice - Fumigation
- Sometimes treatments like fumigation are not usually needed, especially for pests like scales, mealy bugs, thrips and aphids
- Systems approach - a number of different procedures are applied each with a different effect
- Where none provides 100% control by themselves but a combined approach could have synergist effect

- **Modern Fruit Pack house** - powerful water washers remove most contaminants on the surface of fruit and could easily be incorporated into a packing line if not already there
- Activities which are part of the normal quality processing that will have a significant effect on the pests (**use of attractants**), needed to verify or double check the pest disease contaminations
- Example - Ant/ Insect baits

- *The region has witnessed several accidental introductions of pests and diseases from other parts of the world, and further intra-regional dissemination of those alien species through sea transport*

Fiji Biosecurity

Fruit flies - a major concern for biosecurity

Decrease fruits and vegetables production and exports.

Fiji has **seven species of fruit flies** which include *Bactrocera passiflorae*, light form of *B. passiflorae*, *B. xanthodes*, *B. distincta*, *B. gnetum*, *B. kirki* and *B. obscura*.

Two of these species *B. kirki* and *B. obscura* are only present on the island of Rotuma.



- **Giant African snail**—known to attack at least 500 species of plants, and could even threaten Australia's eucalypts as well as cocoa, peanut and legume crops



- **Asian gypsy moth**—a threat to more than 600 species of native, fruit and ornamental trees.

American iguana – a pest not pet



The American iguana is a declared pest in Fiji
Illegally brought into the country - Qamea Island
Now, it has spread to Laucala, Taveuni and Matagi Island
Threat to environment, biodiversity, food security and the economy

Support from Australia New Zealand Biosecurity organisations

- Technical expertise in pest and disease identification
- Infrastructure development
- Staff development and training workshops
- Frequent visits and assessment facilities by Australia and New Zealand Quarantine office

Important initiative

- Establishment of PHAMA Heads of Quarantine – a new regional forum for trade, 2013
- Fiji, Samoa, Solomon Islands, Tonga and Vanuatu
- SPC representatives
- Fumigation Accreditation Scheme
- Sea Container Hygiene Scheme,
- Consensus to develop similar standards
- Need to align country activities with Pacific Plant Protection Organisation



Heads of Quarantine and the PHAMA together in Nadi Oct 17-18

Summary

- The lack of capability, capacity and infrastructure on handling Biosecurity issues makes the countries vulnerable to the risk of introducing new species that could have devastating effects on the country's primary production and overall economic development
- Recent collaborative training and workshops has strengthened the organisational skill and ability in pest or disease identification
- Effectiveness of the current regulatory tools in these countries need appraised and improvement

Recommendations

- Safe and secure delivery of food products is important aspect in achieving sustainable transportation in the Pacific
- Advanced training to the staff that directly involve in goods handling
- More sustainable engagement with countries that present greatest risk to region's Biosecurity
- Strengthening role of regional organisations to positively influence the risk management is required in the Pacific
- Inter-governmental Biosecurity regulatory body for the Pacific countries – SPC could take an initiative

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Thank
You