THE PACIFIC COMMUNITY

FOURTH PACIFIC REGIONAL ENERGY AND TRANSPORT MINISTERS’ MEETING
Apia, Samoa, 18-20 September 2019

AGENDA ITEM 6 – PACIFIC PORTS 2030-2050: A VISION OF RESILIENT, GREEN AND CLEAN PORTS IN THE PACIFIC ISLANDS REGION

Purpose
1. The purpose of this paper is to inform Transport Ministers on the progress made by ports as part of the Pacific Community (SPC)’s Green Pacific Ports project and adopt a Pacific Ports 2030-2050 Vision of Resilient, Green and Clean Ports in the Pacific.

Background
2. Ports are critical infrastructures and facilities in the Pacific Islands Countries and Territories (PICTs) because more than 90% of trade commodities come by sea. The supply chain in PICTs is sensitive to inefficiencies and disruptions that have immediate consequences on the life of people. Maritime ports play an essential socio-economic role, as a port is a gate to access global trading and is the place where taxes on import and other duties are collected. The development of ports in PICTs is therefore essential to support sustainable economic development and must be resilient and green; as a contribution to country efforts to adapt to climate change impacts.
3. In the 2030 Agenda for Sustainable Development, the Sustainable Development Goal 9 calls on the global community to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. The Framework for Resilient Development in the Pacific (FRDP) 2017-2030 identifies three inter-related goals\(^1\) that need to be actively pursued in order to enhance resilience to disasters and climate change in the context of sustainable development and efforts to eradicate poverty. In response to these commitments and call by Pacific islands countries for more resilient and efficient infrastructure development in the Pacific, the Pacific Community (SPC) developed the concept of Green Pacific Ports that integrates relevant global approaches and promotes more efficient port infrastructure and operations, reduced environmental impact, improved quality of working and living in port areas and increased commercial benefits.

Current status
4. Since 2016, the Green Pacific Ports initiative has been introduced and trialled in three ports\(^2\). However, some activities were also carried out in other ports to demonstrate the benefits of energy management, with the assistance of the Maritime Technology Cooperation Centre in the Pacific (MTCC-Pacific). The Green Pacific Ports approach explores port development targeting operational, energy and environmental management of ports.

Operational Management of Port
5. Improving port operational efficiency increases the attractiveness and the profitability of the port, because of increased incomes. Under the Green Pacific Ports approach, pilot activities included: i) review of the port functions and development of a strategy for more efficient port operations; ii) review of the legal framework; iii) develop and implement a Quality Management System (QMS) including mapping of processes and procedures, continual improvement and risk management; and iv) develop and implement emergency response plan (or business continuity plan) in case of major disaster. The overall objective is to improve safety, security and efficiency

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\(^1\) The 3 goals are: 1. Strengthened integrated adaptation and risk reduction to enhance resilience; 2. Low-carbon development; and 3. Strengthened disaster preparedness, response and recovery.

\(^2\) Fiji Ports Corporation Limited (FPCL), Solomon Islands Ports Authority (SIPA) and Port Authority Tonga (PAT).
of port operations while facilitating maritime traffic, reducing ship turnaround time and increasing productivity with reduced equipment usage, energy consumption, GHG emissions and waste.

6. Ports form part of an international, regional and national security network that requires compliance to the International Ship and Port Facility Security (ISPS) Code and regular review through audits. The 2019 Regional Maritime Security Workshop held in Port Vila, Vanuatu, from 22 to 25 July 2019, agreed to further improve the effective implementation of the ISPS Code that should include effective implementation of the Designated Authority (DA) responsibilities, national coordination and security processes and procedures, building capacity of DA personnel, port security personnel and auditors.

7. Port infrastructure and facilities are vulnerable to weather and ocean conditions and the effects of climate change, such as sea level rise and coastal inundation. It is difficult and often impossible to relocate a port, therefore predicting sea level rise, coastal inundation and other risks through impact-based assessment is important to ensure resilience and business continuity. Other information obtained during geological, geophysical and oceanographic surveys are important for evidence-based decision-making and planning. Development partners have taken into account the necessary resilience of Pacific ports as the basis for action in port development projects.

**Energy Management in Port**

8. Port energy management is built on the conduct of Energy Audits, development and implementation of energy management policy and plan and investing in energy saving measures. The Energy Audits Level 1 provides baseline data and information to inform decision on investment and adopt targets. Implementation of energy management produced results as follow:

<table>
<thead>
<tr>
<th>Port</th>
<th>Electricity Savings (kWh)</th>
<th>GHG savings (tCO2-e)</th>
<th>GHG percent reduction</th>
<th>Cost savings (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPCL</td>
<td>110,000</td>
<td>40</td>
<td>21% of office electricity usage</td>
<td>150,000</td>
</tr>
<tr>
<td>SIPA</td>
<td>190,000</td>
<td>160</td>
<td>27% decrease in electricity emissions for Honiara Port, 13% of total energy related emissions (electricity + fuels) *</td>
<td>100,000</td>
</tr>
<tr>
<td>PAT</td>
<td>28,000</td>
<td>19</td>
<td>17% decrease in electricity emissions for Nuku’alofa Port, 11% of total energy related emissions (electricity + fuels)**</td>
<td>10,000</td>
</tr>
</tbody>
</table>

*Average percent savings over 8 month**  **Average percent saving over 6 months**

9. The result achieved from this pilot project shows that the concept of energy management is an affordable and practical approach to support reduction of energy consumption and greenhouse gas emission. Remarkable result and savings can be made with a good return of investment as long as accurate and reliable data are collected and savings are reinvested in energy efficient equipment. The pilot project calculated that even heavier investment provide an acceptable payback period. Lastly, it is important to note that the donor investment provided a payback period of 2 years in Solomon Islands, meaning that SPC’s USD-200,000 Innovation Fund resulted in an immediate USD-100,000 annual saving for SIPA and 10-15% GHG emissions reduction. Further investments demonstrate the potential to achieve the reduction of GHG emissions by 30-40% by 2030 and assist SIPA’s vision of carbon-free Noro port by 2030.

**Environmental Management in Port**

10. The Green Pacific Ports’ work on environment management is carried out in collaboration with the Secretariat of the Pacific Regional Environmental Programme (SPREP). These consist of the

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1 In 2018, The International Maritime Organization (IMO) in partnership with SPC also conducted national workshops in Kiribati and the Solomon Islands to promote the ratification and provide participants with a better understanding of the Convention on Facilitation of International Maritime Traffic (FAL). Currently only six PICTs have ratified the convention.

2 These include the Asian Development bank (ADB)’s port development projects in Nauru, Solomon Islands (Noro), Fiji, Tonga, Samoa and Papua New Guinea; the Japan International Cooperation Agency (JICA)’s projects in Tuvalu, Solomon Islands (Honiara), Samoa, Tonga, Vanuatu and Kiribati; and the World Bank (WB) projects in Tuvalu, Federated States of Micronesia and Marshall islands.
conduct of a Port Environmental Management review and development of plan for managing waste and complying with international requirements related to port reception facilities. To ensure that states in the Pacific Islands region are adequately equipped to assume their international responsibilities, the Regional Reception Facilities Plan (RRFP) was endorsed by the IMO Marine Environment Protection Committee (MEPC) with effect from May 2016. At their meeting in 2017, Transport Ministers endorsed the RRFP, committed to implement the gap analysis, and supported a regionally coordinated approach in implementing the requirements of IMO.

11. SPREP has already carried out audits in Suva and Lautoka (Fiji), Apia (Samoa), Port Moresby (Papua New Guinea), Noumea (New Caledonia), Papeete (French Polynesia) and Majuro (Marshall Islands). In the scope of the Green Pacific Ports initiative, the objective is to build on Port Environmental Management reviews and contribute to the effective implementation of international marine pollution prevention instruments.

Issues

12. Developing port infrastructure and operations requires a long-term vision; given the need for an integrated approach towards increased resilience of the infrastructure, sustainable economic development, compliance with international standards and best practises, and reduced carbon footprint and environmental impact. The results achieved with the SPC’s Green Pacific Ports and other initiatives have paved the way for such a vision in the Pacific. In addition, through its membership and World Ports Sustainability Programme, the International Association of Ports and Harbors (IAPH) shares good examples of port development initiatives worldwide.

13. Building on the current status and progress made to support port development in the last 3 years, it is proposed to adopt a Pacific Ports 2030-2050 vision that would integrate objectives, measures and targets for:
   i. **Resilient Ports** – to adapt port development and strengthen preparedness, response and recovery to climate change and disasters, implement processes to support economic development, and achieve port operational efficiency and compliance to international standards and best practises;
   ii. **Green Ports** – to contribute to low-carbon development by reducing the carbon footprint of Pacific ports, increasing its energy efficiency and incentivising green shipping; and
   iii. **Clean Ports** – to reduce the environmental impact of port operations and comply with international standards and best practises for pollution prevention and control.

14. The Pacific Ports 2030-2050 vision should build on a Recognition Framework for Resilient, Green and Clean Ports defining criteria and guiding targets related to risk management, preparedness and response to disasters, GHG emissions, ship clearance formalities, compliance to traffic facilitation and security standards, and environment protection.

Recommendations

15. Transport Ministers are invited to:
   i. **Adopt** Pacific Ports 2030-2050 a vision of Resilient, Green and Clean Ports in the Pacific;
   ii. **Task** SPC to develop the regional Recognition Framework to support the vision and guide the adoption of ambitious targets related to resilience, operational, energy and environmental management of ports in the Pacific Islands region; and
   iii. **Agree** to take immediate action or progress further disaster risk management, preparedness and response, energy and environmental management and compliance to security and traffic facilitation standards using the SPC’s Green Pacific Ports approach and existing initiatives.

[16 August 2019]

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