THE PACIFIC COMMUNITY

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

AGENDA ITEM 4 – SAFETY OF NAVIGATION IN THE PACIFIC ISLANDS REGION

Purpose

1. The purpose of this paper is to seek Transport Ministers’ agreement to take the lead in establishing a national governing and coordinating entity for safety of navigation and to allocate a dedicated budget utilising some of the charges collected from maritime operators. The paper also invites Ministers to request development partners to coordinate their interventions through the Regional Strategy on Safety of Navigation in the Pacific.

Background

2. In order to support sustainable economic development and protect the ocean and the marine environment of Pacific Island Countries and Territories (PICTs), it is necessary that navigation and all activities within the waters under the jurisdictions of PICTs are carried out safely.

3. The International Convention for the Safety of Life at Sea (SOLAS) Chapter V applies to all ships and requires Contracting Governments to ensure safety of navigation by providing services such as navigational and meteorological warnings, search and rescue (SAR), hydrography, ship reporting and routing systems and vessel traffic services (VTS), and aids to navigation (AtoN). The obligations placed on Contracting Governments under SOLAS Chapter V, both as Flag States and as Coastal States, are included in the IMO Instruments Implementation Code (III Code). This code constitutes the legal framework of the IMO Member State Audit scheme (IMSAS) which became mandatory on the 1st January 2016.

4. In the Nuku’alofa Communiqué of 2017, Transport Ministers reaffirmed the paramount importance of a safe environment and safety culture in international and domestic shipping through coordination and collaboration on relevant initiatives and endorsed the Regional Strategy on Safety of Navigation in the Pacific. The aim of the Strategy is to provide a regional framework to address, in a consistent manner, five main areas of safety of navigation through a global and coordinated approach, namely: i) Governance; ii) Navigation and meteorological services and warnings; iii) Hydrographic services; iv) AtoN services and VTS; and v) SAR services.

Current status

5. Since 2017, progress has been made in all five areas of the Strategy with the assistance of the various organisations and development agencies¹, in particular:
   a) Safety of Navigation governance: during the Regional Workshop on Maritime Governance in November 2018, Heads of Maritime Administrations/Departments discussed the concept of “good governance” and considered the adoption of measures and indicators such as those proposed in the Guide for Pacific Island Countries in developing a Strategy to implement relevant instruments of the International Maritime Organization. SPC also provided legislative drafting assistance to some PICTs and worked with national agencies² for the implementation SOLAS Chapter V obligations in AtoN and SAR Services.

   b) Navigation and meteorological services and warnings: under the Pacific Regional Navigation Initiative (PRNI) funded by New Zealand (MFAT), SPC assisted Kiribati, Tuvalu and

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¹ Safety of Navigation governance: The Pacific Community (SPC), Asian Development Bank (ADB), World Bank (WB); b) Navigation and meteorological services and warnings: SPC, Land Information New Zealand (LINZ); c) Hydrographic services: LINZ, International Hydrographic Organization (IHO); United Kingdom Hydrographic Organization (UKHO), SPC; d) AtoN services and VTS: SPC, New Zealand Ministry of Foreign Affairs and Trade (MFAT), ADB, WB; e) Search and Rescue services: Australia Maritime Safety Authority (AMSA); Maritime New Zealand (MNZ); United States Coast Guard (USCG), SPC
² Depending on the countries, the national agencies involved are: Maritime Administrations, Land services, Ports, Hydrographic offices, Maritime Police, National Disaster Management Organisations.
Vanuatu with: i) the establishment of a National Maritime Safety Information (MSI) Coordinator; and ii) the training on drafting and issue of Hydrographic Notes (H-Notes).

c) **Hydrographic services**: under the PRNI, SPC established and provided a chart updating resource package and training to the MSI coordinators and AtoN personnel of Vanuatu, Kiribati and Tuvalu. These countries have completed the steps of IHO phase 1 of the Capacity Building (CB) Maturity Model, i.e. “the timely collection and circulation of nautical information necessary to maintain existing charts and publications”.

d) **AtoN services and VTS**: under the Pacific Safety of Navigation project, SPC completed technical, economic and legal assessments of the 13 project targeted countries in 2016-2017 and the following activities in 8 countries: carry out AtoN Risk Assessment (SOLAS Regulation V/13) including costs of risk mitigation and cost/risk evaluation; updated AtoN registers in accordance to IALA standards; drafted 5-year AtoN maintenance and upgrade budget plans based on the collection of charges for AtoN.

e) **Search and Rescue services**: Parties to the *International Convention on Maritime Search and Rescue 1979*, are required to meet their obligations to adopt all legislative or other appropriate measures necessary to give full effect to the Convention. The Pacific Search and Rescue Steering Committee (PACSAR SC) was established in 2011 and comprises of the main SAR Principals in the Pacific Region. The SAR Principals generally assist PICTs that fall under their respective Search and Rescue Region (SRR) in providing technical assistance, trainings, and equipment for SAR operations. In addition, the *Maritime Search and Rescue Technical Arrangement for Cooperation among Pacific Islands and Territories that support international lifesaving in the Pacific Ocean* (SAR TAIC) was adopted in 2013, and has now 9 signatories.

**Issues**

6. For each area of safety of navigation as made mandatory by SOLAS Chapter V and addressed in the regional Strategy, specific issues and measures are recommended in Annex 1.

7. A number of international and regional development partners provide assistance to PICTs with initiatives related to maritime safety including safety of navigation governance, SAR, AtoN and hydrography. Even though development partners provide much needed assistance to PICTs to progress the delivery of required services, at times, such assistance is carried out independently and risks duplication of efforts. It would therefore be beneficial to map out current initiatives at both regional and national levels, and coordinate them through the regional Strategy. To facilitate coordination, safety of navigation should be supported by a national governing or coordinating body or as a sub-entity of existing national maritime committees dealing with the subject matters. The body should be responsible to address safety of navigation issues and advise development partners and national agencies on national priorities with regard to safety of navigation governance, coordination and use of available resources.

8. Consistent financing of safety of navigation through national budget and external resources is essential given the costs involved for the upgrade and long-term maintenance of infrastructure and the allocation of resources to national agencies. Some countries collect charges for the provision of safety of navigation services that would potentially cover maintenance and operational costs if these charges were redirected to a dedicated budget rather than being absorbed in the government’s consolidated budget (see Annex 2 forecast budgets versus charges collected and ratio risk costs / operation costs). This situation needs to be reviewed and agreed to between the ministries responsible for delivering safety of navigation services and the ministry responsible for finance and budget.

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3 Australia, Fiji, France, New Zealand, and United States of America
4 Australia, Cook Islands, Federated States of Micronesia, New Caledonia, New Zealand, Palau, Solomon Islands, United States of America, and Vanuatu.
9. The regional Strategy has adequately identified areas that need improvement and development partners are assisting in most of these areas but there is still a need for PICTs to improve national coordination aligned to the Strategy and development partners to communicate about and align their interventions to the Strategy. This will allow SPC to play its role as Partnership Desk under the Strategy, measure progress and report to countries and partners.

Recommendations

10. Transport Ministers are invited to:

   i. **Agree** to work with other ministries responsible for the delivery of safety of navigation to establish a national governing and coordinating entity (or as a sub-entity of existing maritime committees) dealing with matters related to safety of navigation and coordinating internal and external interventions and budgets;

   ii. **Agree** to coordinate between the ministries responsible for the delivery of safety of navigation services and the ministry responsible for finance and budget, the allocation of a dedicated budget utilising some of the charges collected from maritime operators;

   iii. **Agree** to include in national plans activities to achieve compliance with international instruments and best practises; and improve governance through the adoption of measures and indicators such as those proposed in the SPC’s Guide for Pacific Island Countries in developing a Strategy to implement relevant instruments of the International Maritime Organization and the Regional Strategy on Safety of Navigation in the Pacific; and

   iv. **Request** development partners providing assistance for the delivery of safety of navigation services in PICTs to align to national priorities and plans, and coordinate their activities through the Regional Strategy on Safety of Navigation in the Pacific in order to measure and report progress.

[16 August 2019]
Annex 1: Regional Strategy on Safety of Navigation in the Pacific - specific issues

a) Safety of Navigation governance: “Governance” is underpinned by systems that make up the processes; such as international agreements, laws, policies or procedures that define who has power to perform a task, who needs to be consulted, how decisions are to be made and how decisions are implemented or reviewed. PICTs are clearly aware of and are making the effort to enact suitable laws or policies for marine Aids to Navigation and Search and Rescue services. However, in order to implement governance even better, PICTs must endeavour to address lesser known elements such as consultation policies or practices, meeting procedures, service quality protocols, rules on conduct of officers, clarified roles, and processes for review of decisions.

b) Hydrographic services: Currently hydrographic services are provided in an ad hoc manner. There is a need to establish a National Hydrographic Coordination Committee (NHCC) as a separate entity or within existing committees (depending on each country special circumstances), whereby matters relating to hydrographic services are discussed, coordinated and carried out in a timely manner.

c) Aids to Navigation: the main issue related to AtoN is ring-fencing the charges collected (‘light dues’) to establish a dedicated budget for the installation and maintenance of AtoN. In many PICTs, the light dues collected would largely cover the above. Transport Ministers could initiate a conversation with the ministries and/or departments responsible for collecting the light dues and ensure an adequate portion is re-allocated to AtoN. The best practice is that light dues be based on a cost-based pricing approach, specifically that a light due be calculated based on the cost of provision of services. PICTs are encouraged to consider the AtoN budgets drawn up by their competent authority to consider the cost of funding AtoN installation and maintenance, and duly review light charges based on it.

d) Search and Rescue services: Delayed responses to SAR incidents happen because of several factors. Proper coordination is required to ensure effective response is executed in a timely manner without unnecessary delays. Lack of resources including emergency radios/beacons, trained personnel and proper SAR assets, cooperation and coordination between local and external SAR stakeholders, all contribute to delayed SAR responses:

   (i) **Emergency Equipment** – most of the SAR cases in the region involved small crafts (open boats with outboard motors, ‘banana’ boats, etc.) which often do not carry emergency position location radios/beacons thus making it very difficult to estimate their last known positions. Appropriate measures have to be put into place to encourage carriage of this equipment so that response time will be improved with huge savings on operational costs.

   (ii) **Training of SAR personnel** – SAR designated personnel should be well trained in order to perform their tasks competently, both at governance and operational levels. There is a need to train SAR Coordinators, SAR Mission Coordinators and other SAR personnel.

   (iii) **SAR assets** – most small countries do not have proper SAR assets and often request assistance from the RCC/JRCC which is responsible for the SRR which the countries fall under. These resources can be arranged through effective cooperation and coordination of all stakeholders.

   (iv) **Cooperation and Coordination** – while some local stakeholders may have their own normal working system in place, these sometimes hinder the effectiveness of SAR operations. Close cooperation by all stakeholders is really required to support effective coordination and pulling together of available resources by leading SAR agencies. Establishment of **National SAR Coordinating Committees** (or as sub-entity of existing committee), development and implementation of **National SAR Plans**, would support an effective SAR system. The **SAR TAfC** will also support an effective SAR system at a regional level.

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3 The SAR TAfC is a non-binding document of intent that provides a framework for enhanced regional cooperation among SAR authorities and agencies in the Pacific Island region.
Annex 2: Forecast safety of navigation budget versus charges collected and ratio risk costs / operation costs

During the course of the Pacific Safety of Navigation project, estimates of accident consequences were calculated to shed light on the expected costs of maritime accidents attributed to poor or lack of safety of navigation. Further to this, forecasted budgets were drawn up in conjunction with relevant country officials to show how much it would cost to put in place preventative measures to prevent such an incident from occurring.

The project found that across all countries, the cost of preventative measures made up only a fraction of the expected cost of damage and loss that would accrue from an accident – ranging from between 1% - 19%. This means the cost of putting in place processes and new instalments would cost a country far less than it would bear if the accident would to occur – up to a fifth of the expected cost at most.

Safety of navigation budgets were drawn up with respective competent authorities to show how much resources it would take to dedicate to management and maintenance. This was than compared to the amount of light dues that the country receives or could receive. In all but one country, the amount of light dues collected was more than enough to cover the recurring cost of maintenance. Light due charged on foreign vessels calling at port are a convenient source of funds for important annual upkeep to keep AtoN functional and in turn prevent maritime accidents from happening. The budget exercise with countries showed that light dues can cover between 23% - 84% of total AtoN maintenance costs.

**Example:**

To use as an illustration, below information from one project targeted country. A risk assessment was conducted to survey the risk of incidents that could occur due to poor or lack of safety of navigation services. The following estimated costs were calculated on the most likely accidents identified during the assessment and risk control options drawn up to bring these risks to as low as reasonably practicable.

<table>
<thead>
<tr>
<th>Estimated costs of accident</th>
<th>Risk control options</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounding on soft bottom</td>
<td>Dredging of the shallow end of the domestic wharf</td>
<td>€ 443,216.00</td>
</tr>
<tr>
<td>due to shallow water</td>
<td>Installation of a cardinal mark to mark danger</td>
<td>€ 351.25</td>
</tr>
<tr>
<td>Grounding on rock due to</td>
<td>Installation of an isolated danger mark to mark wreck</td>
<td>€ 269.49</td>
</tr>
<tr>
<td>shallow water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grounding on wreck at</td>
<td></td>
<td></td>
</tr>
<tr>
<td>domestic port</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allision between domestic</td>
<td>Installation of fenders along jetty to mitigate damage</td>
<td>€ 71,025.36</td>
</tr>
<tr>
<td>ship and jetty</td>
<td>from ship allision</td>
<td></td>
</tr>
<tr>
<td>Allision between copra</td>
<td>Port to enforce vessel movement regulations around</td>
<td>€ 0.00</td>
</tr>
<tr>
<td>boat and dock when a</td>
<td>copra wharf to mitigate risk of allision</td>
<td></td>
</tr>
<tr>
<td>foreign vessel is berthed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allision between a</td>
<td>Install mooring buoys and reflective tape along petroleum</td>
<td>€ 1,287.99</td>
</tr>
<tr>
<td>domestic vessel and</td>
<td>line</td>
<td></td>
</tr>
<tr>
<td>petroleum fuel line</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>€ 516,150.09</td>
</tr>
</tbody>
</table>

The table shows that cost of preventative measures in this case, dredging, plus installation of cardinal marks, buoys and fenders make up only 10% of the cost of an incidents that would occur from the lack thereof.