

THE PACIFIC COMMUNITY

**FIFTH PACIFIC REGIONAL ENERGY AND TRANSPORT MINISTERS' MEETING**

(Port Vila, Vanuatu, 8-12 May 2023)

**TI 06: THE INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO) STRATEGIC PLAN 2021-2026 AND THE SOUTH WEST PACIFIC HYDROGRAPHIC COMMISSION (SWPHC) WORK PLAN**

[Submitted by South West Pacific Hydrographic Commission]

**Purpose**

1. The purpose of this paper is to provide information on the *International Hydrographic Organization (IHO) Strategic Plan 2021-2026* and the South West Pacific Hydrographic Commission (SWPHC) Work Plan related to Pillars 1, 3, 4, 7 and 8.

**Background**

2. The International Hydrographic Organization (IHO) was established in 1921 as an inter-governmental consultative and technical organization. It primarily supports safety of navigation and the protection of the marine environment, and coordinates on a worldwide basis the setting of hydrographic standards. It also facilitates capacity building of national hydrographic services. It provides a forum at an international level for the improvement of hydrographic services through the discussion and resolution of hydrographic issues and assists member governments to deliver these services through their national hydrographic offices.
3. The [IHO Strategic Plan 2021-2026](#) was developed to respond to a number of challenges faced by Hydrographic Offices, such as the growing needs for increasingly diversified customers, progress in technology and the increasing attention on the ocean. The strategic plan has three overarching goals, with a number of targets for each, to be reached by 2026.
4. The South West Pacific Hydrographic Commission (SWPHC), along with other Regional Hydrographic Commissions, was established to coordinate hydrographic activity and cooperation at the regional level. The SWPHC meets annually and is composed of coastal States within the Pacific region. As a regional response to the IHO Strategic Plan goals and targets, the SWPHC has developed a 3-year [Work Plan](#) of activities.

**Status**

5. A number of Work Plan activities have been delivered over the past twelve (12) to eighteen (18) months including workshops on preparing for the future of navigation, i.e. the new S-100 ECDIS Performance Standard, implementation of the S-100 Universal Geospatial Data Model for Next Generation navigation S-100 products and services; a series of webinars on the Nippon Foundations Seabed 2030 Project; and the promotion and coordination of crowd source bathymetry programmes in the region. Recordings and presentations are available [online](#).
6. A key goal for the SWPHC is to increase the regions participation and influence at the IHO and other international and intergovernmental bodies. One of the activities to attain this goal is the Hydrographic Leaders Programme which has been running since March 2022. The first cohort comprises participants from Pacific Island Countries and Territories (PICTs) including Australia, Cook Islands, Fiji, Indonesia, Kiribati, New Zealand, Niue, PNG, Solomon Islands, Tonga, Vanuatu and the UK.
7. Other activities include engagements and collaboration with:

- regional organizations to encourage Coastal States to share data within the region and adopt open data policies;
- the Pacific Community (SPC);
- the new IMO regional representative; and
- international and regional Donors and Development Partners.

### Issues and Opportunities

8. An exciting opportunity is to prepare Coastal States in the Pacific Region for the future of global Safety of Navigation Services (i.e. Maritime Digital Transformation) with the new International Maritime Organization (IMO) S-100 ECDIS Performance Standard (from 2026 voluntary & 2029 mandatory) and the new IHO S-100 Decade of Implementation 2020-2030.
9. Another is the IHO S-100 Universal Data Model which provides the geospatial data framework and products for the S-100 ECDIS Ecosystem, as well as other digital products required by the hydrographic, maritime and marine geospatial community. This will provide the Next Generation charting products - S-100 based products (S-101 ENC) & S-100 Services.
10. It is expected that S-100 Services will strengthen Safety of Navigation, innovate standardised service delivery, unlock the potential of marine geospatial data, and provide dynamic data for environmental intelligence.
11. Economic/Environment benefits of S-100-based products include real time information on depth, tides and currents. This allows users to identify alternate, safer routes with shorter distances and improve cargo optimisation resulting in reductions of fuel consumption. The use of S-100 products could decrease fuel consumption costs by 45% per year (Estimate provided by KHOA) thus reducing GHG emissions from international shipping.
12. We have a major challenge to support hydrographic governance in Pacific Island Countries and Territories with the introduction of S-100 Next Generation Charting Products & Sunsetting of the Traditional Paper Chart. Note the [UK Hydrographic Office announces intention to withdraw from paper chart production](#).
13. **Examples of what the new standard and navigation products could do:**
  - What is the future of hydrography? (IHO) <https://youtu.be/OaufxKOGOys>
  - A New Generation of Data Standards (UKHO) <https://youtu.be/j8CP6RPr8LY>
  - Setting the standards for S-100 (UKHO) <https://youtu.be/EyfeM3tS31s>
  - S-100 Services for Safe & Optimized E-Navigation (CHS) <https://youtu.be/cWdIFg4-o5s>
14. With increased focus on our oceans by regional and international agencies and coastal States, there is a need to support understanding of hydrography in the development sector, signal the importance of coordinated effort, avoid duplication and gaps, and enhance the value of data which is often collected but not used or otherwise made available. Hydrography often falls between the gaps and needs to be recognised in its role in improving knowledge about and the sustainable use of our oceans.
15. The SWPHC notes an increase in international development activity involving hydrography but its value is often poorly understood and poorly recognised. There are issues of data discovery and the subsequent availability of marine geospatial information. This is relevant both in the region and globally, e.g., as demonstrated by the [Seabed 2030 Project](#).
16. Even where data is discoverable, accessing it is a significant challenge as it is often unavailable due to the absence of or weak application of open data policies and non-existence or restrictive licencing practices by countries.
17. The SWPHC19 meeting included a session on [Open Data](#) which presented the value of open data to society, the economy and the environment. Drawing on a report published in 2021 by Deloitte

[The value of Australian seabed mapping data to the blue economy](#) the use of seabed mapping data in the areas of navigation, exploration and research, contributed AUD9 billion to the Australian economy. This demonstrates the value of seabed mapping data to a single country. Just imagine what this would mean to the Blue Pacific Continent.

18. The biggest challenge is that of engaging and coordinating with international and regional agencies, development partners and coastal states at a senior enough level, to raise awareness of the benefits of hydrography and adopting and giving effect to open data policies and mutually agreeable practices. Hence SWPHC [submitted a paper](#) to the IHO on raising awareness of the benefits of hydrography and adopting and giving effect to open data policies and mutually agreeable practices.
19. The SWPHC20 meeting, hosted by NZ 22-24 February 2023, included a session on *Safety of Navigation: Delivering as one* presented by the IHO, IMO and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA).

SWPHC20 meeting, 23 Feb 2023, Agenda item 15: **Safety of Navigation: Delivering as one**

- [Recording](#)
  - [Presentation](#)
20. These sister, inter-governmental organizations are members of the Joint IHO-IMO-WMO-IOC-IALA-IAEA-FIG-IMPA Capacity Building Coordination Meetings. The meetings are an opportunity to coordinate joint elements of their work programmes, identify funding mechanisms and learn from experiences gained in the provision of Capacity Building and Capability Development and dealing with funding donors. These meetings were disrupted due to the Covid-19 pandemic and as a result there are no current joint activities planned for the Pacific region. However, with travel restrictions lifting and the establishment of the IMO Regional Presence Office (RPO) in Fiji, the IHO, IMO and IALA are committed to collaborating with other International/Regional Partners and the SWPHC on delivering capacity building activities in the region.
  21. Recent and planned IHO funded capacity building activities in the region include a:
    - Technical Workshop on Hydrographic Governance which preceded the SWPHC20 meeting in Feb 2023;
    - Maritime Safety Information (MSI) Workshop in Fiji to be hosted by the Fiji Hydrographic Service in July 2023; and
    - Workshop on Disaster Response to be held in conjunction with the next SWPHC meeting in March 2024.

## Recommendations

22. Transport Ministers are invited to:

- a. **note** the commitment of the IHO, IMO and IALA to collaborate with other International/Regional Partners and the SWPHC on delivering capacity building activities in the Pacific region;
- b. **encourage** PICTs to engage and collaborate with IHO, IMO, IALA and regional partners to *deliver as one* the future Safety of Navigation services in the Pacific region;
- c. **note** the IHO Strategic Plan and the SWPHC Work Plan and support the activities through the coastal States' hydrographic office and/or competent maritime authority. In particular:
  - i. Preparing Coastal States in the Pacific Region for Maritime Digital Transformation – Supporting hydrographic governance in Pacific Island Countries and Territories; and
  - ii. the introduction of Next Generation Charting Products & Sunsetting of the Traditional Paper Chart;

- d. **encourage** PICTs to engage with the IHO and SWPHC to fully understand the benefits and value of IHO Membership, hydrography and the importance of including hydrography when designing development programs; and
- e. **encourage** regional and international agencies, development partners and coastal States to adopt and implement open data policies in line with the UN-GGIM [Statement of Shared Guiding Principles for Geospatial Information Management](#) and the UN-GGIM Integrated Geospatial Information Framework (IGIF) [Strategic Pathway 2: Policy and Legal](#).

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