

SEMINAR ON E-NAVIGATION ON OUR OCEAN

The contribution of SIMA-JICA Project

Honiara, Solomon Islands

13 May 2025

Impact of JICA-SIMA Project on Safety of
Navigation and National Economic Development

Presented by Malesi Mani, Senior Officer Safety of Navigation, SIMA

SOLOMON MARITIME...

Domestic vessels & small boats multiplied
Inter-provincial land/sea connectivity

4000+ pax/week Malaita Prov.
1000+ pax/week Isabel Prov.
800+ pax/week Western Prov.
Small craft capacity unknown

More & bigger foreign vessels
Auki & Buala major hubs / ports

30,000+ containers Honiara Port
SBD3.2B logging export
SBD330M fish export

...TODAY

750k+ population on 300+ islands

1.6 million km² area 98% ocean – 1.2 million km² Search and Rescue Region

140 domestic vessels
carrying passengers & goods
serving productive industries

Thousands of small boats (<10m)

300+ foreign vessels 700+ calls incl.
50% fishing vessels & 50% cargo ships

3 international ports (Honiara, Noro & Leroy Wharf Ports)

100 sufferance wharves exports from
logging and mining industries

Impact of the SIMA-JICA Project for Development Support of Electronic Navigational Charts for Honiara and Noro Ports in Solomon Islands



Improving Maritime Safety & Safety of Navigation



Facilitating Maritime Traffic & Small Boat Movements



Fostering Maritime Infrastructure Development & Blue Economy



Advancing Navigational information and Marine Spatial Planning

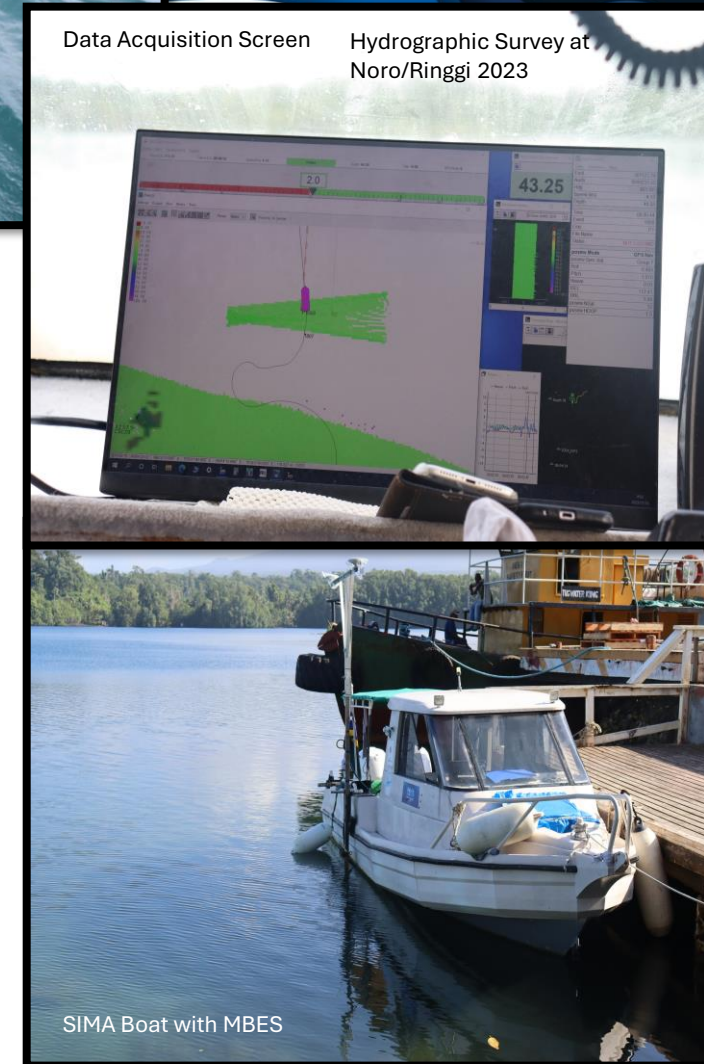
Improving Maritime Safety & Safety of Navigation

Conduct Multi Beam Echo Sounder (MBES) hydrographic surveys:

- gathers reliable bathymetric data & detects **100% of seabed features** achieving **IHO's A1 Standard**
- Compilation of **accurate and reliable** nautical charts from quality data
- 100% confidence of mariners & chart users.

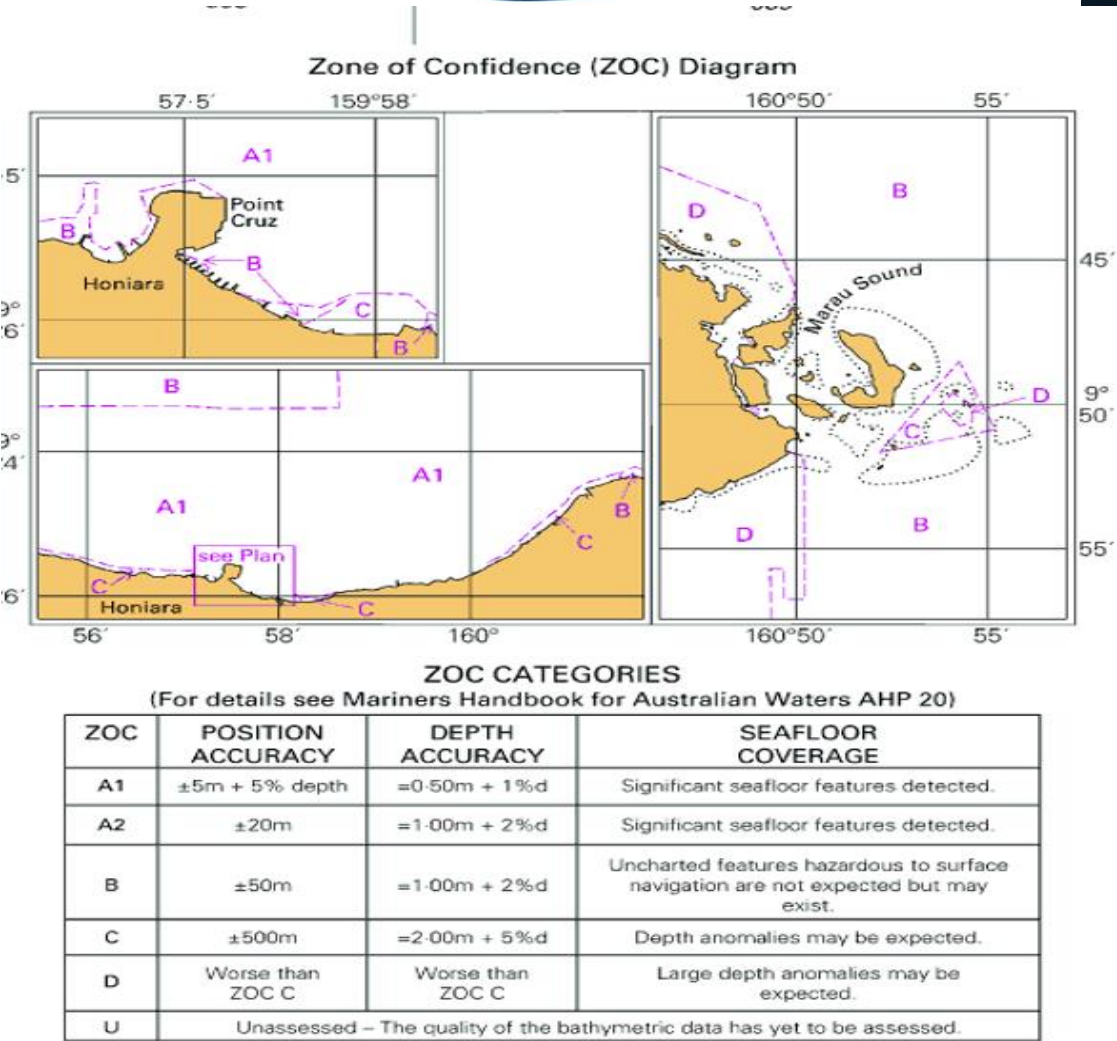
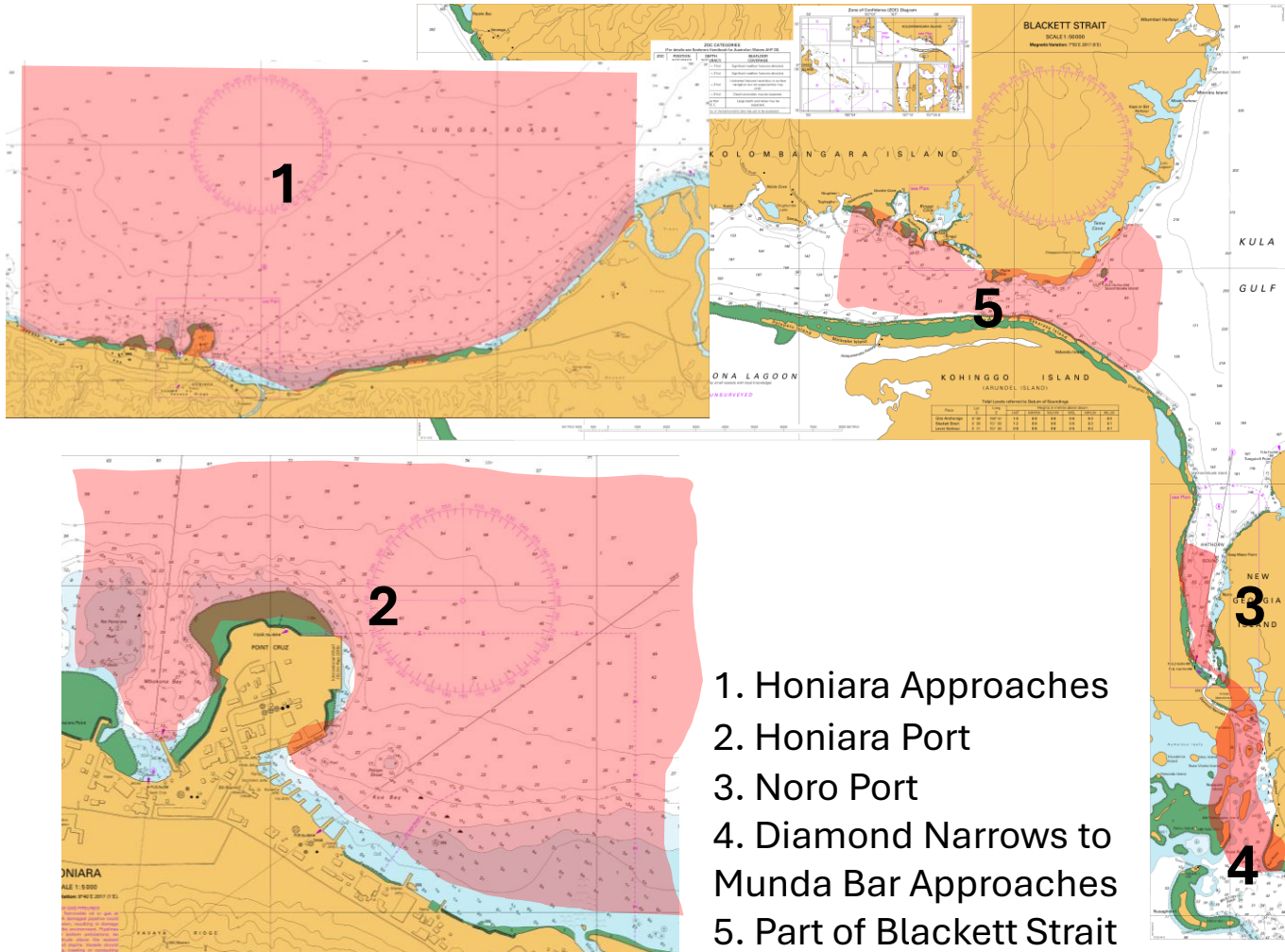
Areas covered:

- Honiara port and approaches and Noro Ports and approaches (incl. Blackett Strait)
- Diamond Narrows to Munda Bar approaches



Improving Maritime Safety & Safety of Navigation

Improved Bathymetric Data & Chart Quality



Improving Maritime Safety & Safety of Navigation

**Avoid
Collision**

Electronic Chart
Display and Information
Systems (**ECDIS**)
display ENCs
mandatory on-board
international vessels

**Prevent
Grounding**

Accurate depth
navigational
information = **accurate
vessel position**

**Alert on
Dangers**

ENCs trigger alarms
for approaching
dangers, ensuring
timely action by
navigators.



ADV Reliant integrated Bridge 2023



Facilitating Maritime Traffic & Small Boat Movements

Optimized voyage Planning

- Integration of real-time navigational information (depth, tides, currents & weather conditions)

Automated Route Adjustment

- Based on real-time conditions, shipping routes enhancing trade flow and reducing transit time

Energy Efficiency

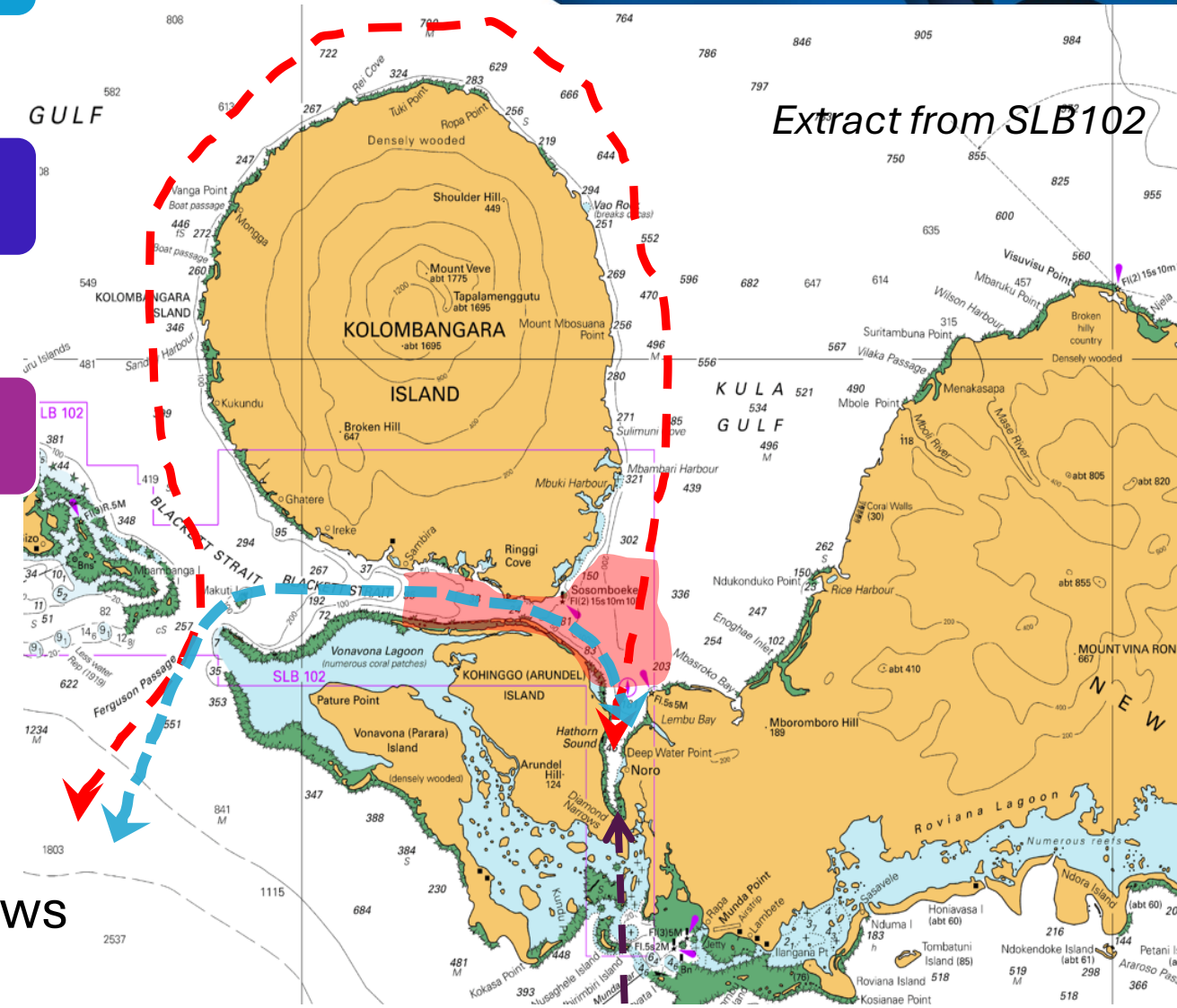
- Resulting in reduced fuel consumption

➤ Shorter/safer route to/from Noro Port thru Blackett Strait & Ferguson Passage

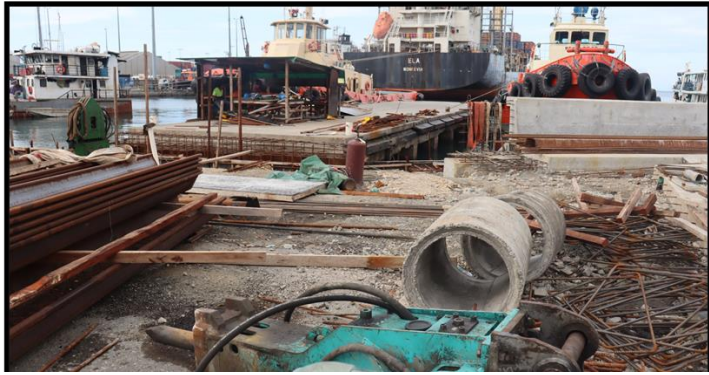
←-- Old Shipping Route

←-- New Shipping Route

➤ Safer domestic route thru Diamond Narrows



Fostering Maritime Infrastructure Development & Blue Economy



Blue Economy Development

- delimitation of maritime zones and sovereignty over the ocean
- fishing, marine tourism, etc.

Coastal Development

- ocean roads, bridges, waterfront, coastal cities development, etc.)
- Early warning system & climate resilient infrastructure

Maritime Infrastructure Development

- construction of wharves & ports, access to loading/discharging locations
- safe and efficient navigation

Future Aspirations of Hydrography and Cartography in Solomon Islands

Hydrography

➤ **Advancements in Hydrographic Technology**

- ❖ Adopting Multi-beam echo sounders, to further refine mapping accuracy, uncovering previously unknown underwater features and improving maritime infrastructure.

➤ **E-navigation for All in Solomon Islands**

- ❖ Future of e-navigation in the Solomon Islands includes integrating satellite-based navigation systems, automated chart updates, and digital platforms that provide live maritime data. This will be crucial for supporting economic development, disaster preparedness, and environmental protection

➤ **Sustainable Ocean Management**

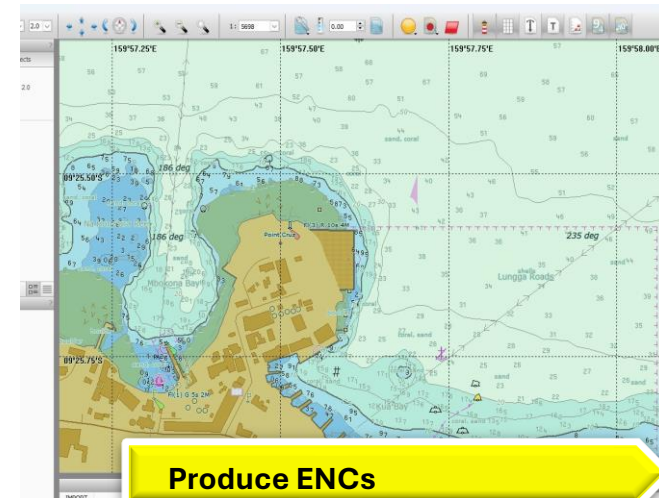
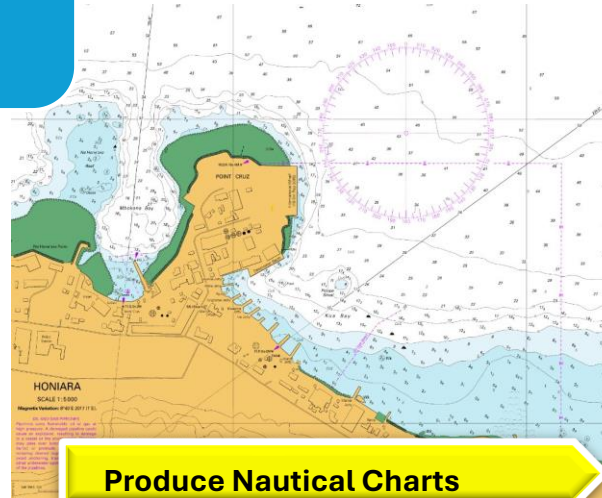
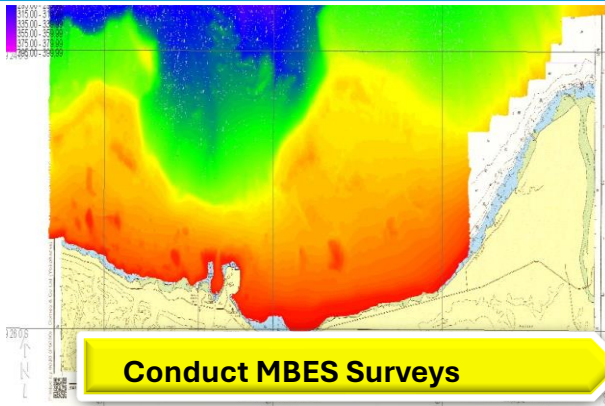
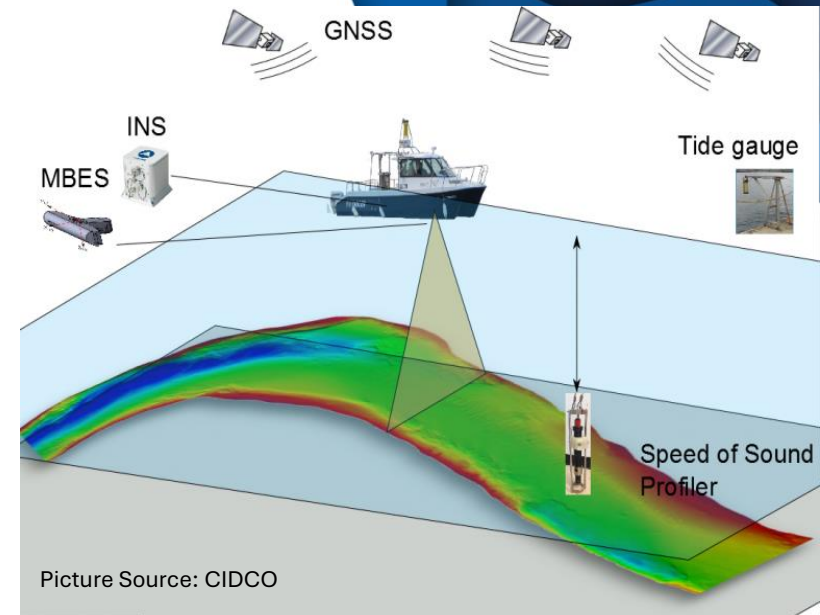
- ❖ Hydrographic data is increasingly used for coastal protection, fisheries management and climate resilience, helping the Solomon Islands safeguard its marine resources.

Advancing Navigational information and Marine Spatial Planning

Full MBES capacity

E-navigation for All in Solomon Islands

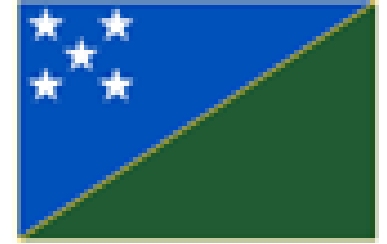
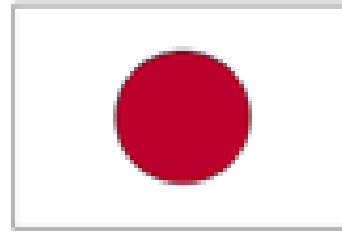
Support Blue Economy & Economic Development





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TAGIO TUMAS

The Project for Development Support of
Electronic Navigational Charts for
Honiara and Noro Ports in Solomon
Islands