



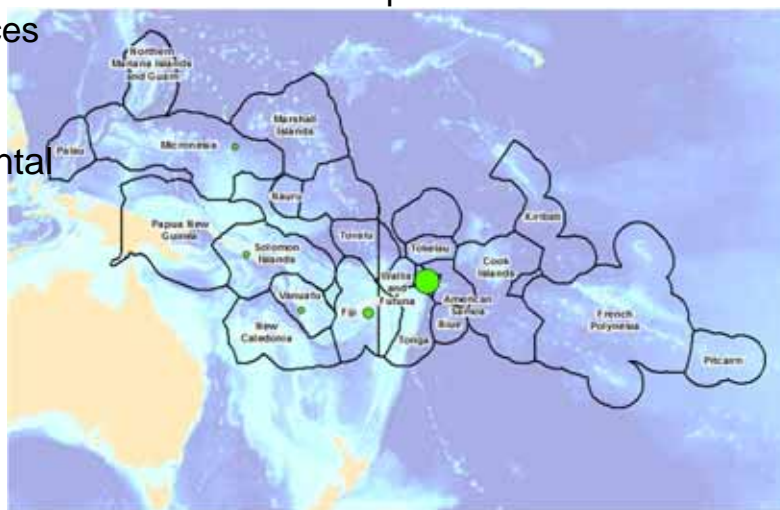
Better environmental management and data delivery through open-source GIS

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GIS Officer

2015 Pacific GIS / RM User Conference, USP, Suva, Fiji

Secretariat of the Pacific Regional Environment Programme

- To ensure the protection and sustainable development of the region's natural resources
- 21 Member Countries, liaise through Environmental Focal Points
- Main campus in Samoa with offices in Fiji, Solomons, Vanuatu & Micronesia



GIS within SPREP

- Originally, 1 grown to 4 GIS Users in last 2 years
- Providing GIS Support to:
 - **Biodiversity and Environmental Management**
 - *Marine Spatial Planning, Rapid Bio Assessments, Endangered Species*
 - **Pollution and Waste**
 - *Asbestos, Medical, E-waste, Shipping (inc. Pollution events)*
 - **Environmental Monitoring and Governance**
 - *Environmental Impact Assessments, State Of Environmental Reporting*
 - **Climate Change**
 - *Ocean Acidification, Sea Level Rise*















GIS within SPREP (2)

- Develop online spatial portal to disseminate spatial data
 - Back end – reduce software & infrastructure costs
 - Front end – minimal GIS knowledge required to operate
 - Replicable across region (on and offline instances)
- Promote use of open-source desktop GIS software to members to build capacity
 - inconsistent or no financing for proprietary GIS

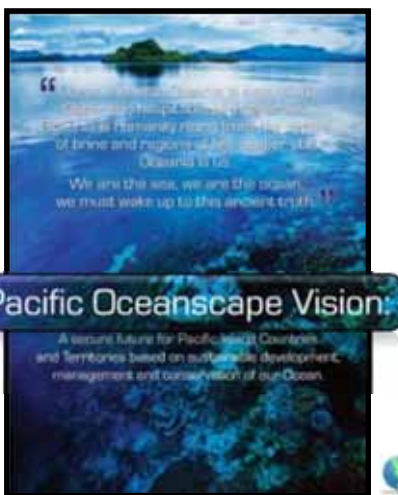


Marine Spatial Planning Programs w SPREP

 <p>Marine and Coastal Biodiversity Management</p>  	<p style="text-align: center;">SUSTAINABLE OCEAN INITIATIVE</p> 	<p style="text-align: center;">BIOPAMA</p> <p>Biodiversity and Protected Areas Management Programme</p>  	<p style="text-align: center;">EPOG</p> <p>Enhancing Pacific Ocean Governance</p>  	<p style="text-align: center;">GEF-5</p> <p>Global Environ. Facility Ridge to Reef Kiribati</p> 
<p style="color: green;">Completed</p> <p style="font-size: 24px; font-weight: bold;">BIORAP</p> <p>Rapid Biodiversity Assessment (Tonga and Nauru)</p> 	<p style="color: green;">Completed</p> <p style="font-size: 24px; font-weight: bold;">EBSA</p> <p>Ecologically or Biologically Significant Marine Areas</p> 	<p style="color: green;">Completed</p> <p style="font-size: 24px; font-weight: bold;">PACIOCEA</p> <p>Pacific Ocean Ecosystem Analysis</p> 		

As the regional environmental agency, **SPREP** coordinates and facilitates Marine Spatial Planning activities across the region taking direction from Pacific Island Members' priorities


Supporting Frameworks



Pacific Oceanscape Vision:
A secure future for Pacific Island Countries and Territories based on sustainable development, management and conservation of our Ocean.

- Pacific Island **Leader Endorsed Framework**
- Action 3B – *‘explore and build marine spatial planning mechanisms for improved EEZ management to achieve economic development and environmental outcomes’*

Aichi Biodiversity Targets



The vision: *“Living in Harmony with Nature”* where *“By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.”*

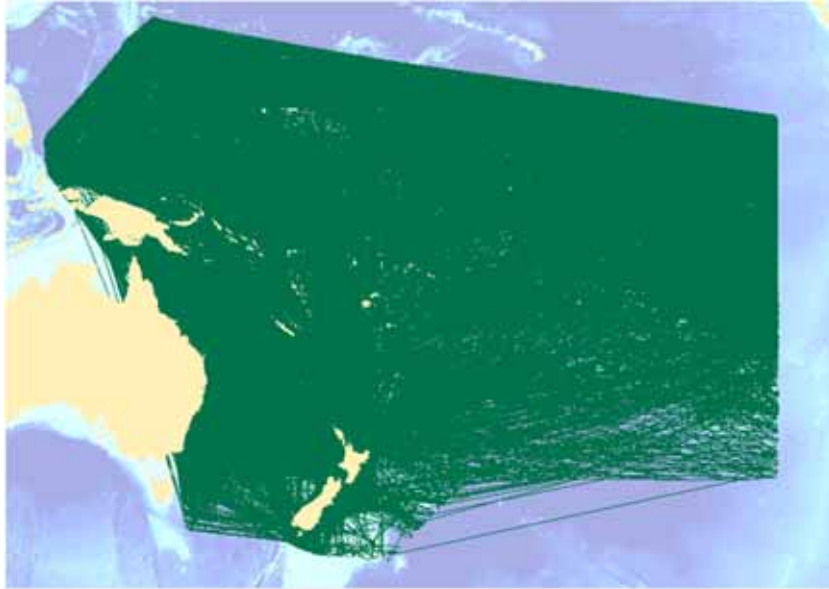


Sustainable Development Goals

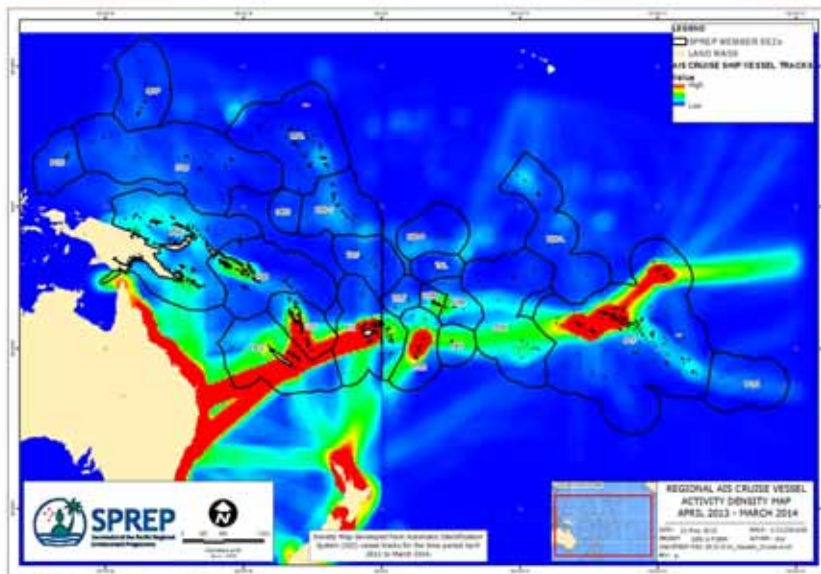
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development



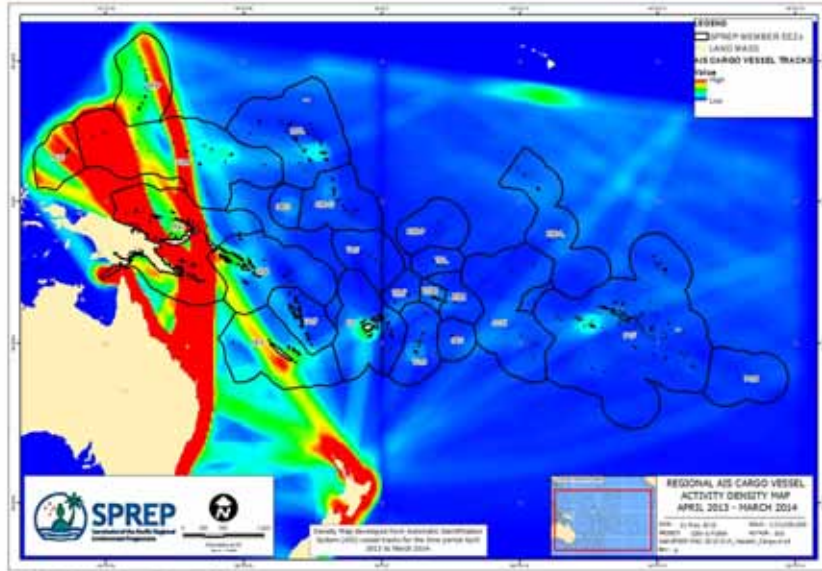
Analysis



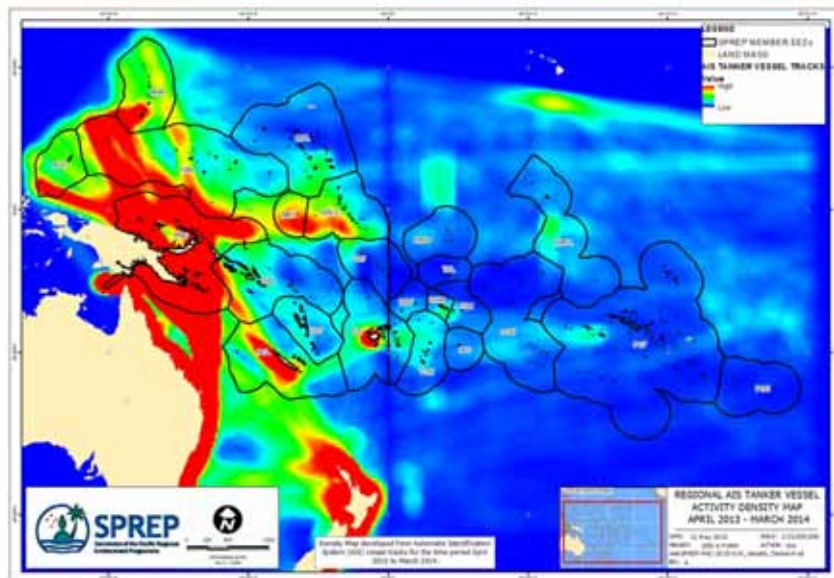
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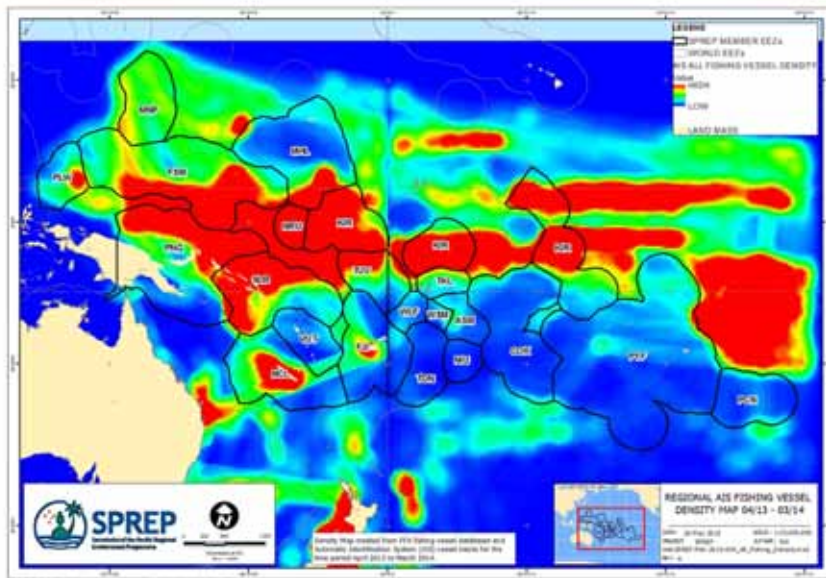
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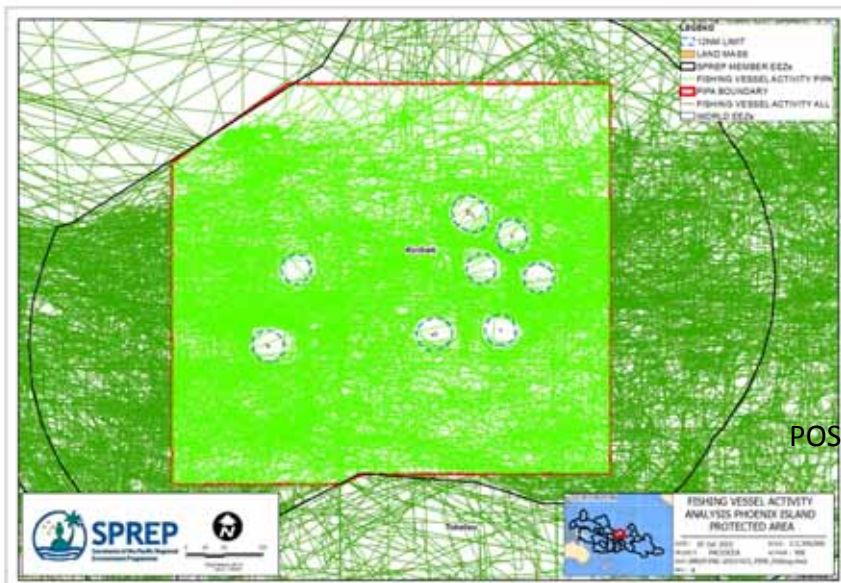
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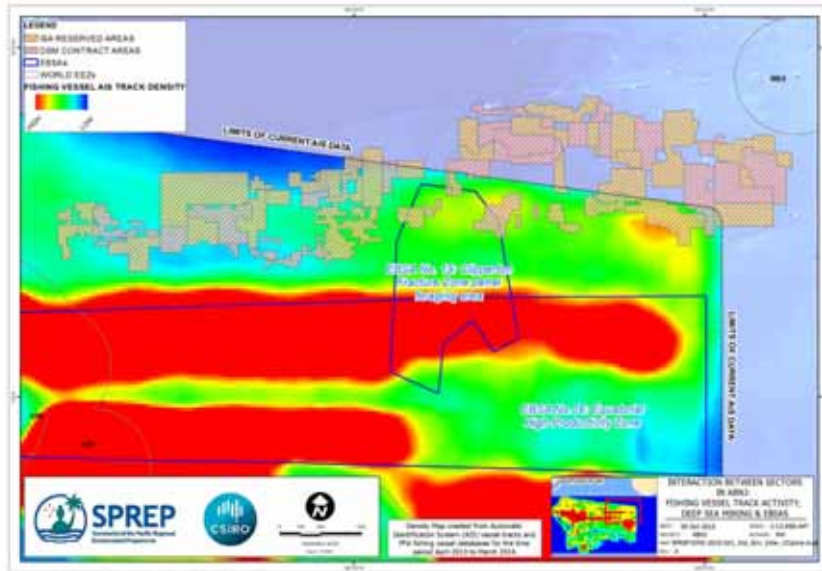


Analysis

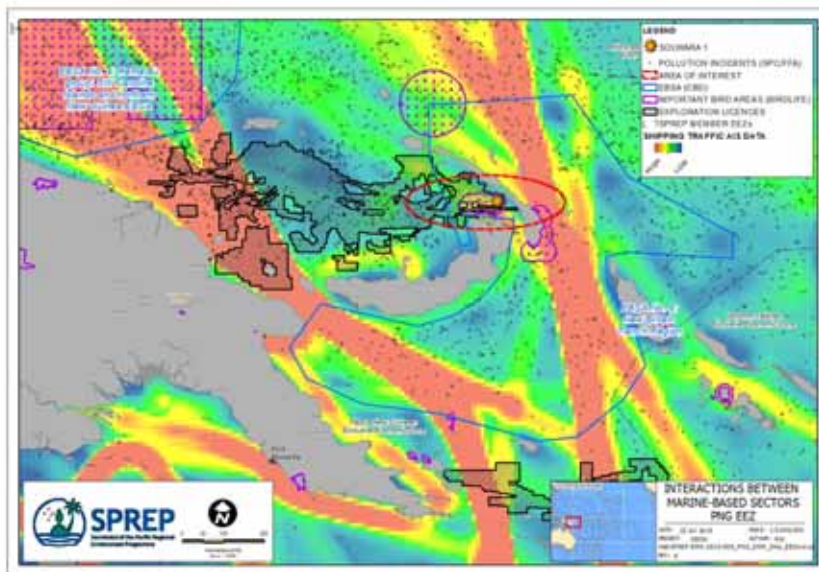


POST 1/1/2015?

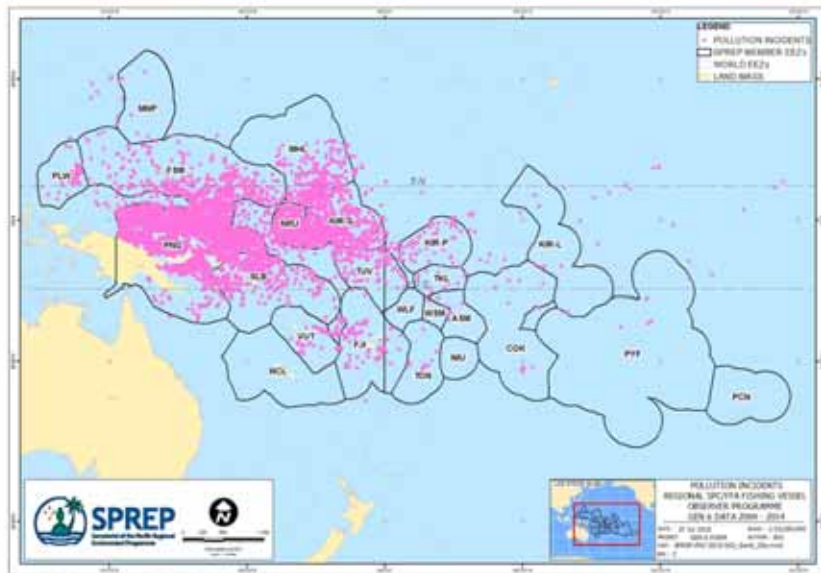
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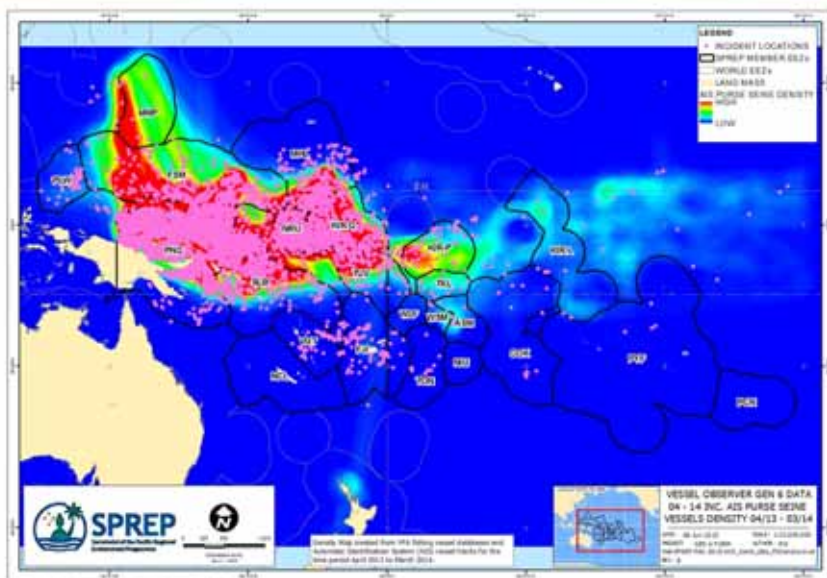
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Analysis



Analysis



Open-Source Spatial Data Infrastructure

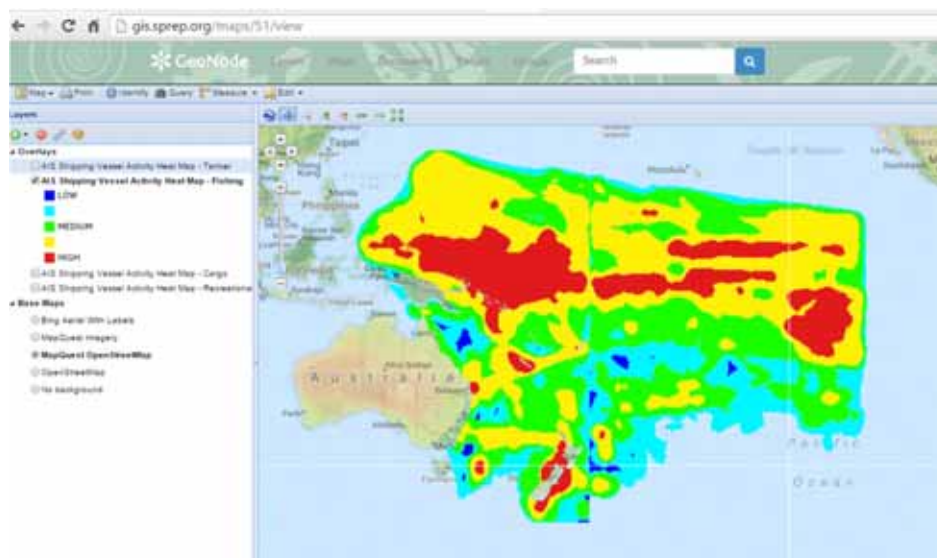



39 Layers


9 Maps


6 Users

Open-Source Spatial Data Infrastructure



Open-Source Spatial Data Infrastructure

Environmental Spatial Information Service (<http://gis.sprep.org>)

- Open Access Regional GIS Database
- Open-source components
- Replicable (intranet, internet)
- Usability
- Secure



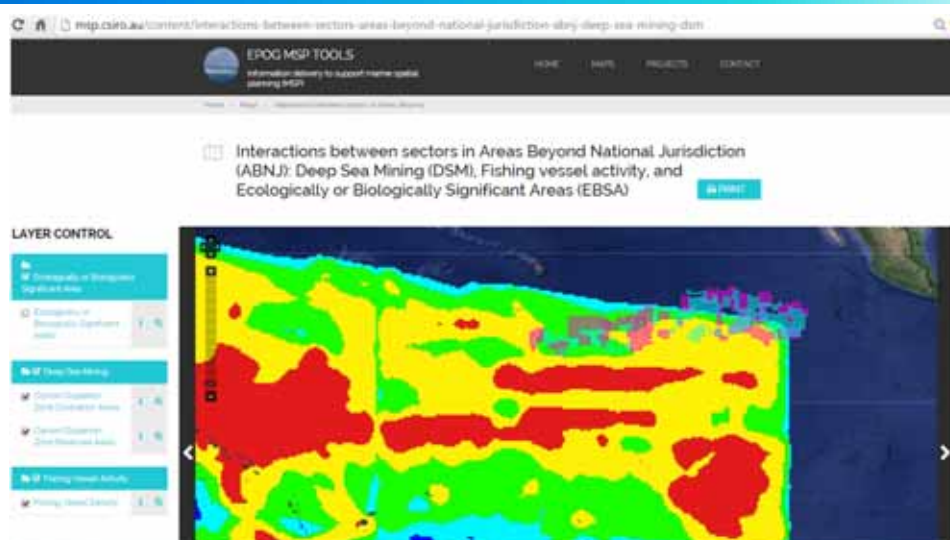
Pacific
Community
Communauté
du Pacifique



Agence des
aires marines protégées

**Australian
Aid** 

Other Instances



Msp.csiro.au

Other Spatial Capacity Building Exercises

- QGIS (www.qgis.com) training:
 - Environment and Fisheries Division (Samoa)
 - Next year: Fisheries (Nauru), More Div MNRE (Samoa)
- GPS Training:
 - Kiribati (Environment and Conservation Division)
 - Tonga (Ministry of Environment and Climate)

