

THE NIPPON FOUNDATION-GEBCO

SEABED 2030

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*Seabed 2030 Project
South and West Pacific regional data centre*

National Institute of Water and Atmospheric Research, Wellington

<https://www.seabed2030.gebco.net>



IHO

International
Hydrographic
Organization

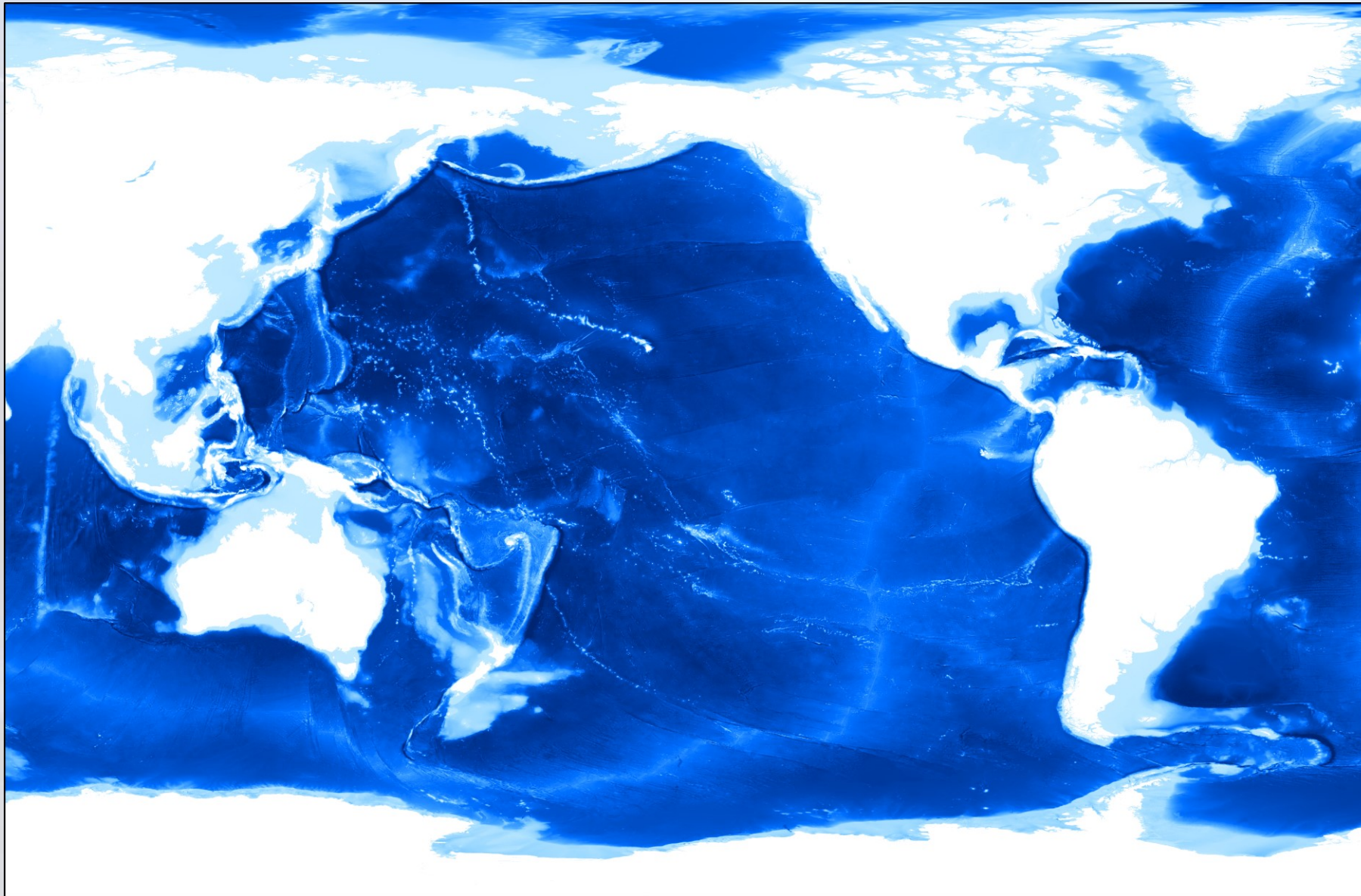


United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission





GEBCO_2020 grid

15arc-sec (~500m) cell size

Formats:

.netcdf
.geotiff
.asc

<https://www.gebco.net>





Nippon Foundation-GEBCO Seabed 2030 project: South and West Pacific Ocean regional data centre

Seabed 2030 has four Regional Centers who compile bathymetry data for their areas, and a Global Center (based at the British Oceanographic Data Centre) that produces the global **GEBCO** grid.

South and West Pacific Ocean regional data centre (SaWPac) held its inaugural workshop on March 3-6, 2019, in Wellington.

[SaWPac story map](#)

Online resources for the mapping community

This public platform is being developed for discovering bathymetric data coverage in the Pacific region.

[Seabed 2030 Open Data Layers and Applications](#)

Explore bathymetric data coverage

[Web viewer](#)

[How-to guide](#)

Contact Us

Email: pacific@seabed2030.org

[Seabed 2030 on the NIWA web page](#)

<https://seabed2030.gebco.net/pacific>

THE NIPPON FOUNDATION-GEBCO



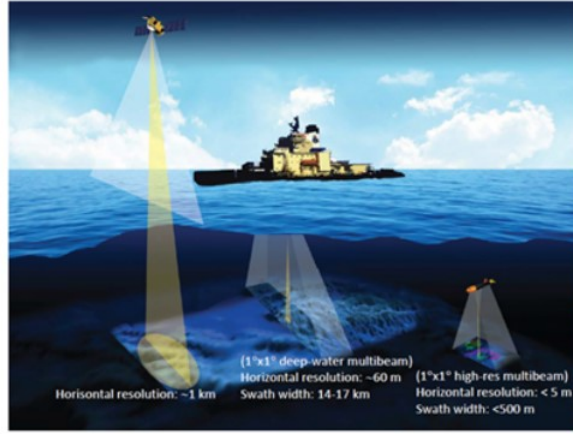
Seabed 2030 project

1st regional workshop, Wellington, March 2019

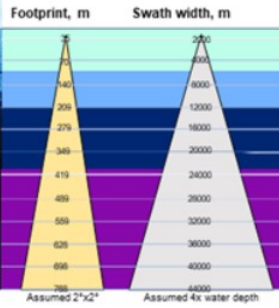
2nd regional workshop, virtual, June 2020

Seabed 2030 concept and status

GIS resources for the regional mapping community

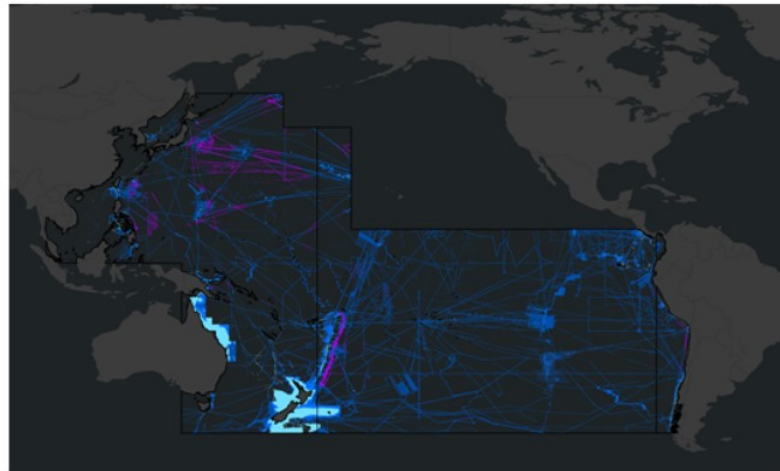
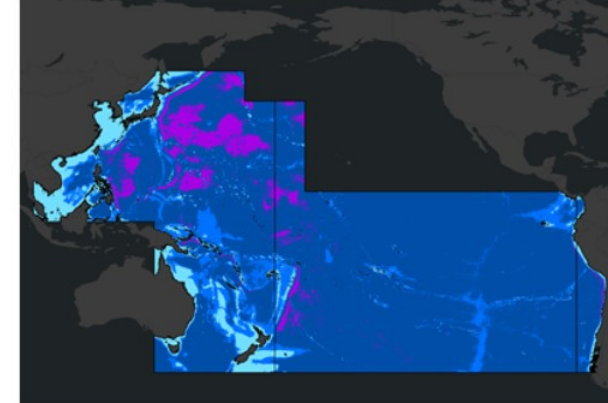


Seabed 2030 target grid resolution is based on the average beam footprint for a specified depth range of a modern multibeam system installed on a surface vessel.

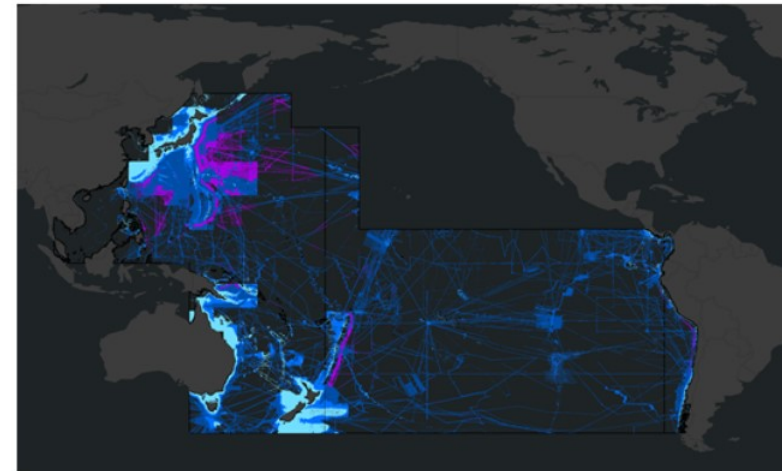


| Depth Range | Target grid resolution |
|----------------|------------------------|
| 0 – 1500 m | 100 × 100 m |
| 1500 – 3000 m | 200 × 200 m |
| 3000 – 5750 m | 400 × 400 m |
| 5750 – 11000 m | 800 × 800 m |

Seabed/GEBCO 2030 target coverage



Seabed/GEBCO_2019 coverage

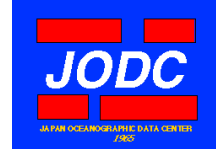


Seabed/GEBCO_2020 (draft) coverage

Seabed 2030 S&W Pacific regional contributors in 2019



Australian Government
Geoscience Australia



PANGAEA.



[Full list of GEBCO 2020 data contributors](#)



New S&W Pacific/Seabed 2030 regional contributors in 2020



Potential future partners of Seabed 2030 in the Pacific region



AUS
SEABED



DeSET PROJECT



Seabed 2030 S&W Pacific regional contributors / ENC data

Hydrographic Authority, Land Information New Zealand (LINZ)

Korea Hydrographic and Oceanographic Administration (KHOA), Republic of Korea

East Asia Hydrographic Commission (EAHC)

Chilean Navy Hydrographic and Oceanographic Service (SHOA), Chile

Directorate of Hydrography and Navigation (DHN), Peru

Instituto Oceanografico de la Armada (INOCAR), Ecuador

Hydrographic Department, Royal Thai Navy (HDRTN)



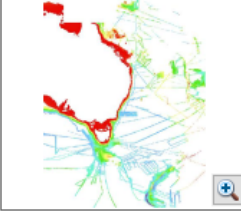
SaWPaC/ Seabed 2030 metadata management

| Data type | code |
|---|------|
| Land | 0 |
| Direct measurements | |
| Singlebeam - depth value collected by a single beam echo-sounder | 10 |
| Multibeam - depth value collected by a multibeam echo-sounder | 11 |
| Seismic - depth value collected by seismic methods | 12 |
| Isolated sounding - depth value that is not part of a regular survey or trackline | 13 |
| ENC sounding - depth value extracted from an Electronic Navigation Chart (ENC) | 14 |
| Lidar - depth derived from a bathymetric lidar sensor | 15 |
| Depth measured by optical light sensor | 16 |
| Combination of direct measurement methods | 17 |
| In-direct Methods | |
| Predicted based on satellite-derived gravity data | 20 |
| Interpolated based on a computer algorithm | 21 |
| Digital bathymetric contours from charts | 22 |
| Digital bathymetric contours from ENCs | 23 |
| Bathymetric sounding - depth value at this location is constrained by bathymetric sounding(s) within a gridded data set where interpolation between sounding points is guided by satellite-derived gravity data | 24 |
| Unknown | |
| Pre-generated grid - depth value is taken from a pre-generated grid that is based on mixed source data types, e.g. single beam, multibeam, interpolation etc. | 30 |
| Unknown source - depth value from an unknown source | 31 |
| Steering points - depth value used to constrain the grid in areas of poor data coverage | 32 |

Edit Properties ✕

All Datasets (1)

- \\bunsec\marinedata\Cruises_Seabed\9arcsec_Australian_bathy_200



Name: 9arcsec_Australian_bathy_2009_ExtractSurve (GCS_WGS_1984)

Format: TIFF

Size: 15,999 columns x 20,799 rows (cell size: 0.0025 degrees)

Location: \\bunsec\marinedata\Cruises_Seabed2030\20

Properties

General Point Display Collection Extended Metadata Internal Metadata

| Metadata Field | Value |
|----------------------|---|
| Dataset_GID | |
| Dataset_type | Combination of direct measurements |
| Dataset_SID | 17 |
| GEBCO_status | |
| Dataset_restrictions | Open access |
| Contrib_format | Grid |
| Contrib_org | Geoscience Australia |
| Contrib_resolution | 250 |
| Contrib_year | |
| Contrib_URL | http://dx.doi.org/10.4225/25/53D9986581B9A |
| Source_org | |

ESRI Bathymetric Information System



GEBCO_2020 TID grid

https://maps.ngdc.noaa.gov/viewers/iho_dcdb/

The screenshot displays the IHO Data Centre for Digital Bathymetry Viewer interface. The browser address bar shows the URL maps.ngdc.noaa.gov/viewers/iho_dcdb/. The page header includes the IHO logo and the text "International Hydrographic Organization" on the left, and "Data Centre for Digital Bathymetry Viewer" on the right. Below the header is a "Layers" panel on the left with the following options:

- IHO DCDB/NOAA NCEI (?)
- EMODnet
- Australia
- Canada
- France
- Japan
- Netherlands
- Known Non-Public Data (?)
- Bathymetric Coverage Maps
 - Global Multi-Resolution Topography Synthesis (GMRT)
 - GEBCO_2020 Type Identifier (?)

The main map area shows a world map with bathymetric data. The GEBCO_2020 Type Identifier grid is overlaid, showing a dense network of green lines representing the grid. The map includes labels for continents (ASIA, NORTH AMERICA, SOUTH AMERICA, AUSTRALIA) and various ocean basins and ridges (e.g., North Pacific Ocean, North Atlantic Ocean, Indian Ocean, Southeast Indian Ridge). A "Position" box at the bottom left indicates coordinates: Position: -28.125°, -5.500° and Elevation: -5532.13 meters. An "Identified Features (1)" pop-up window is open, showing a tree view with "GEBCO_2020 Type Identifier Grid (1)" and a description: "Combination of direct measurement methods". The interface also includes a "Mercator" projection selector, "Arctic" and "Antarctic" region filters, and "Identify", "Basemap", and "Options" dropdown menus.

- Seabed 2030 project
- 1st regional workshop, Wellington, March 2019
- 2nd regional workshop, virtual, June 2020
- Seabed 2030 concept and status
- GIS resources for the regional mapping community

2nd workshop of the S&W Pacific data centre, virtual

June 23-24, 2020

[Workshop program](#)

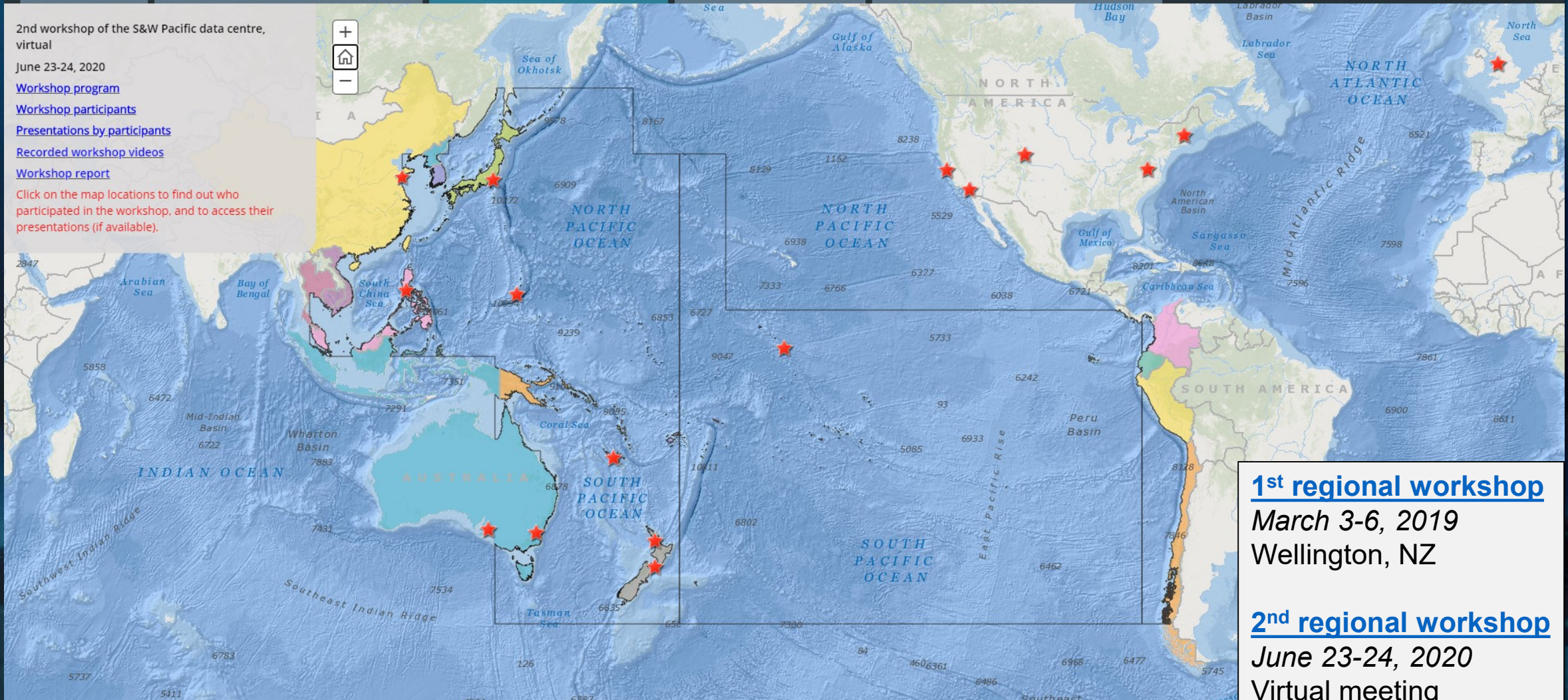
[Workshop participants](#)

[Presentations by participants](#)

[Recorded workshop videos](#)

[Workshop report](#)

Click on the map locations to find out who participated in the workshop, and to access their presentations (if available).



[1st regional workshop](#)
March 3-6, 2019
Wellington, NZ


[2nd regional workshop](#)
June 23-24, 2020
Virtual meeting

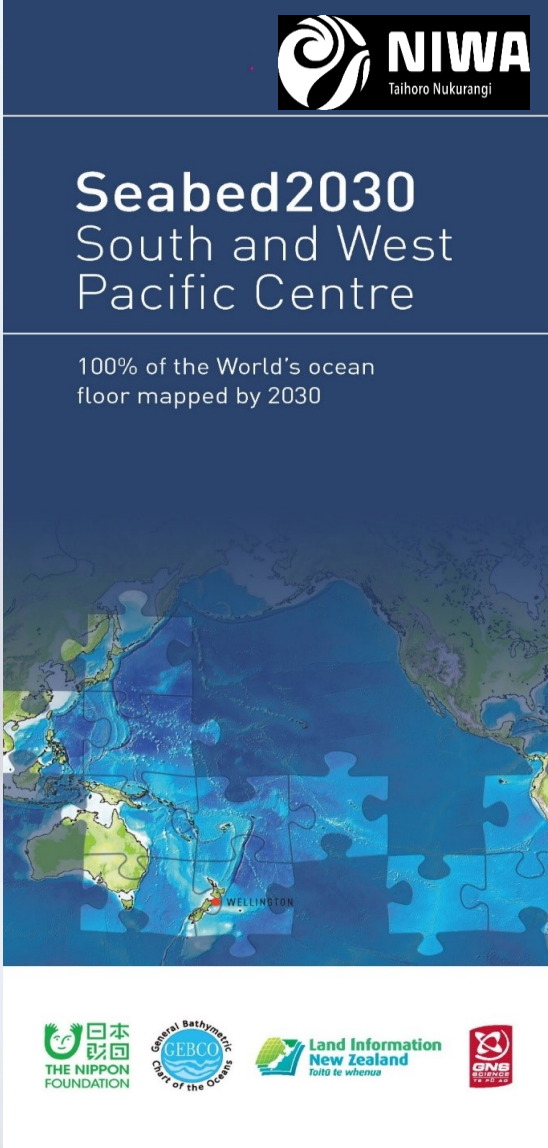
Seabed 2030 South and West Pacific centre

Online resources

<https://seabed2030.gebco.net/pacific>

E-mail: pacific@seabed2030.org

@seabed2030 



The poster features the NIWA logo at the top right, with the text 'NIWA Taihoro Nukurangi'. Below this, the title 'Seabed2030 South and West Pacific Centre' is displayed in white on a dark blue background. A subtitle reads '100% of the World's ocean floor mapped by 2030'. The central image is a map of the South and West Pacific Ocean, where the seabed is represented by a grid of blue puzzle pieces. The map includes labels for 'WELLINGTON' and 'New Zealand'. At the bottom, there are four logos: 'THE NIPPON FOUNDATION' (with Japanese characters), 'General Bathymetric Chart of the Oceans (GEBCO)', 'Land Information New Zealand' (with the Māori phrase 'Taiti te whenua'), and 'GNS Science'.

THE NIPPON FOUNDATION-GEBCO
**SEABED
2030**

