

THE NIPPON FOUNDATION-GEBCO

# SEABED 2030

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*Southwest Atlantic Hydrographic Commission (SWAtHC) March 2023*



# What is Seabed 2030?

The Nippon Foundation - GEBCO Seabed 2030 Project is a collaborative project to inspire the complete mapping of the world's ocean by 2030, and to compile all bathymetric data into the freely-available GEBCO Ocean Map.

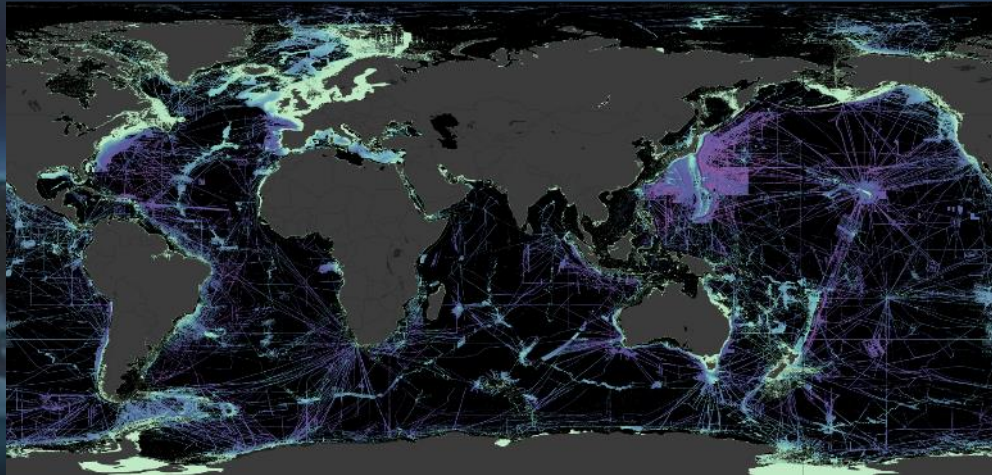
*Seabed 2030 aspires to empower the world to make policy decisions, use the ocean sustainably, and undertake scientific research that is informed by a detailed understanding of the global ocean floor.*





# Why is Seabed 2030 Important?

- Bathymetry data is an essential ocean observation
- Seabed mapping data has broad use and value
- Ocean processes extend beyond territorial waters
- Only ~23% of the ocean has been mapped with direct observation
- Mapping the entire ocean is a massive task that can only be achieved through cooperation and coordination



# GEBCO Products

- Global gridded bathymetric data
  - 2014: 30 arc-second grid
  - 2019 - 2022: 15 arc-second grid
- Gazetteer of Undersea Feature Names
- Grid viewing software
- Printable maps
- Web Map Service (WMS)
- IHO-IOC GEBCO Cook Book



The screenshot shows the GEBCO website homepage. At the top is a navigation menu with links for Home, Data & Products, Seabed 2030, Training, News & Media, About, and Contact. Below the menu are logos for the International Hydrographic Organization (IHO), the United Nations Environment Programme (UNEP), and the International Oceanographic Commission (IOC). The main heading is "General Bathymetric Chart of the Oceans" with the GEBCO logo. A central text block states: "GEBCO aims to provide the most authoritative, publicly available bathymetry data sets for the world's oceans." Below this are three buttons: "Download GEBCO's global grid", "Download polar grids", and "Contribute data". The page features three columns of content: "Gridded Bathymetry Data" with a world map, "Data & Products" with a regional map, and "Seabed 2030" with a bathymetric map. Each column includes a brief description and a "Read more" button.

Home Data & Products Seabed 2030 Training News & Media About Contact

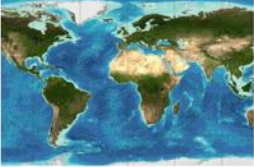
IHO International Hydrographic Organization United Nations Environment Programme International Oceanographic Commission

General Bathymetric Chart of the Oceans

GEBCO aims to provide the most authoritative, publicly available bathymetry data sets for the world's oceans.

Download GEBCO's global grid Download polar grids Contribute data

### Gridded Bathymetry Data



GEBCO's gridded bathymetric data sets are global terrain models for ocean and land. The grids are available to download or access through Web Map Services.

Read more

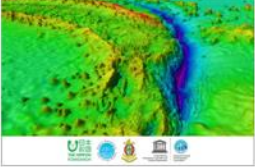
### Data & Products



GEBCO produces and makes available a range of bathymetric data sets and products. This includes a global bathymetric grid, gazetteer of undersea feature names, a Web Map Service and printable maps of ocean bathymetry.

Read more

### Seabed 2030



Seabed 2030 is a collaborative project between the Nippon Foundation and GEBCO. It aims to bring together all available bathymetric data to produce the definitive map of the world ocean floor by 2030 and make it available to all.

Read more

Download the GEBCO grid from: [gebco.net](http://gebco.net) or [seabed2030.org](http://seabed2030.org)



# How to Access the GEBCO Grid



Home » Data & Products » Gridded Bathymetry Data

## Global ocean & land terrain models

GEBCO's gridded bathymetric data set, the GEBCO\_2020 grid, is a global terrain model for ocean and land at 15 arc-second intervals. It is accompanied by a Type Identifier (TID) Grid that gives information on the types of source data that the GEBCO\_2020 Grid is based.

- [Download global coverage grids](#)
- [Download data for user-defined areas](#)

More [information](#) about the grid, its terms of use and attribution.

## Download global coverage grids

The GEBCO\_2020 Grid and TID Grid can be downloaded as global files in netCDF format or a set of 8 tiles (each with an area of 90° x 90°), giving global coverage, in Esri ASCII raster and data GeoTiff formats. The data files are included in a zip file along with the data set documentation.

<b>GEBCO_2020 Grid</b>	<a href="#">netCDF</a> (4 Gbytes, 7.5 Gbytes uncompressed)	<a href="#">Data GeoTiff</a> (4 Gbytes, 8 Gbytes uncompressed)	<a href="#">Esri ASCII raster</a> (5 Gbytes, 20 Gbytes uncompressed)
<b>GEBCO_2020 TID Grid</b>	<a href="#">netCDF</a> (90 Mbytes, 4 Gbytes uncompressed)	<a href="#">Data GeoTiff</a> (96 Mbytes, 7 Gbytes uncompressed)	<a href="#">Esri ASCII raster</a> (108 Mbytes, 9.5 Gbytes uncompressed)

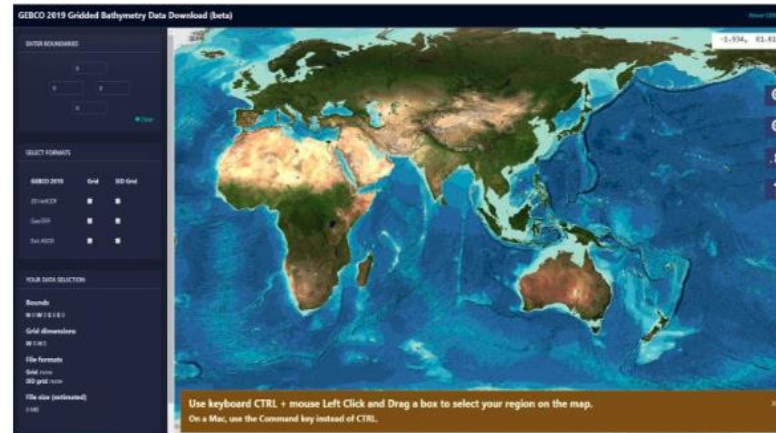
## Jump to

- > [Seabed 2030](#)
- > [Contribute data](#)
- > [IBCAO\\_v4](#)
- > [GEBCO Web Services](#)
- > [Printable maps](#)
- > [Historical GEBCO data sets](#)
- > [Imagery](#)
- > [Undersea feature names](#)
- > [Historical GEBCO charts](#)
- > [IHO-IOC GEBCO Cook Book](#)
- > [History of GEBCO book](#)

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## Download data for user-defined areas

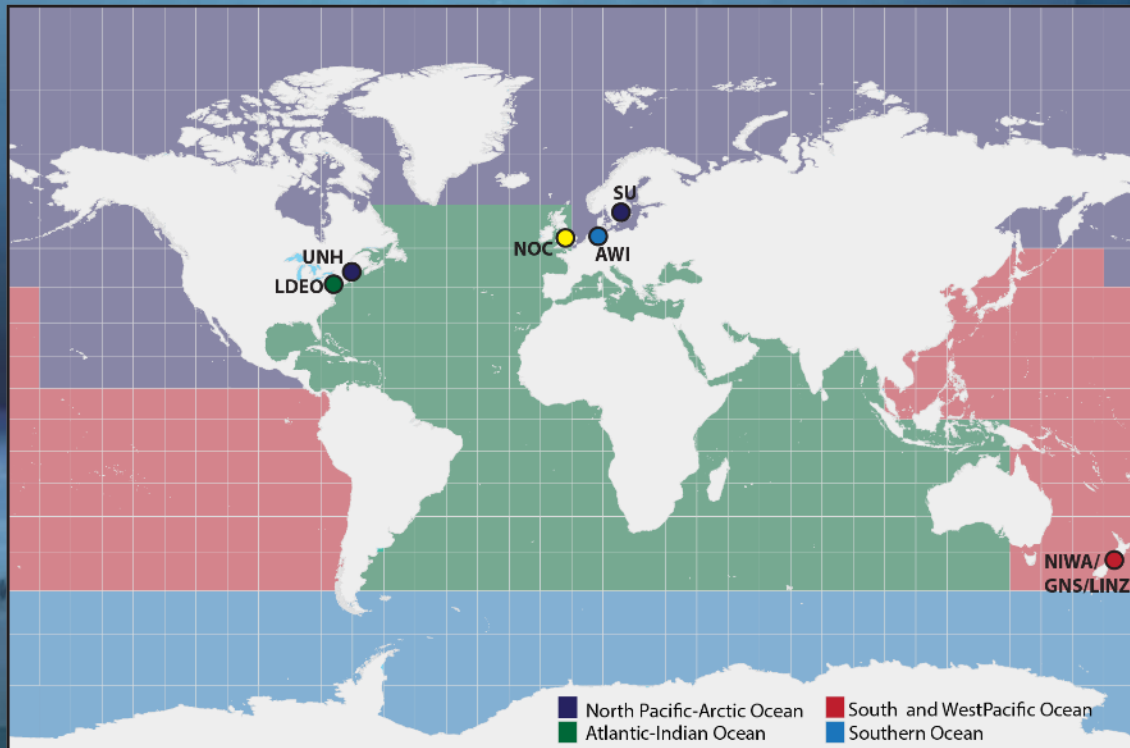
Use our [application](#) to select and download data in netCDF, Esri ASCII raster and data GeoTiff formats.



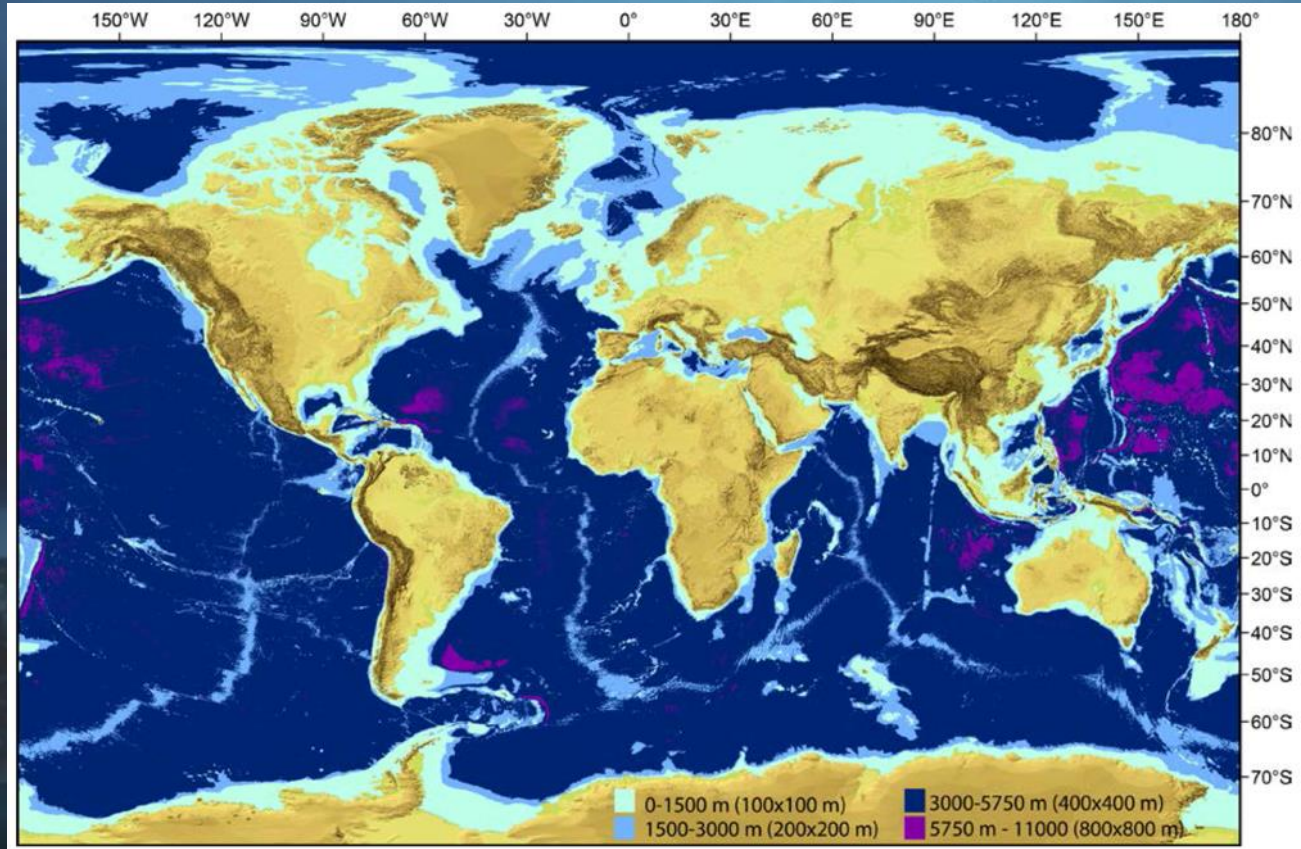
Download the GEBCO grid from: [gebco.net](http://gebco.net) or [seabed2030.org](http://seabed2030.org)

# Seabed 2030: Regional Approach

- Regional Centers (RDACCs)
  - Engage with stakeholders
  - Build upon existing efforts
  - Assemble regional products
  - Identify gaps
- Global Center (GDACC)
  - Assemble global products
  - Disseminate global products



# What does 100% mapped mean?

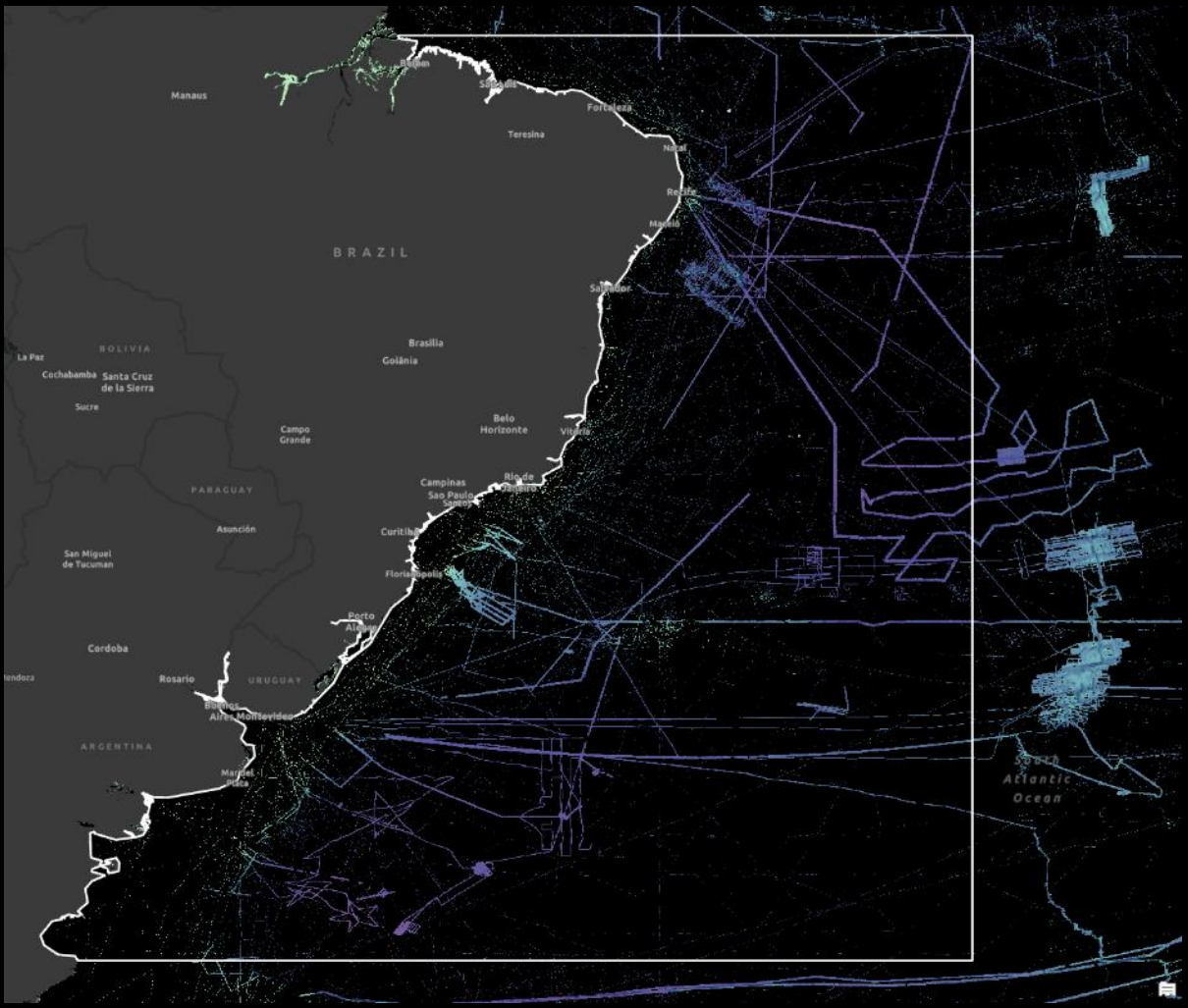




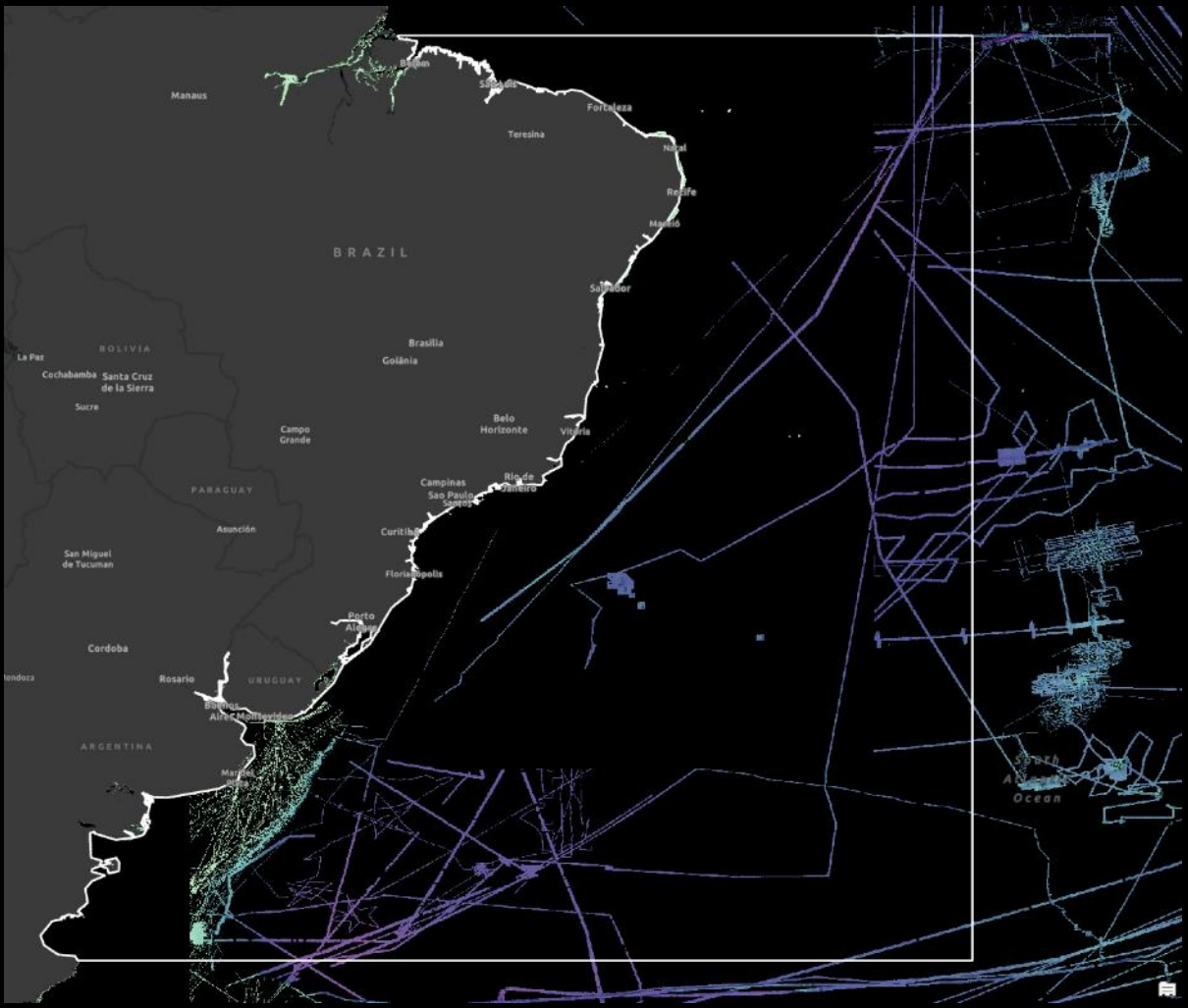
What is the status of mapping in the region?



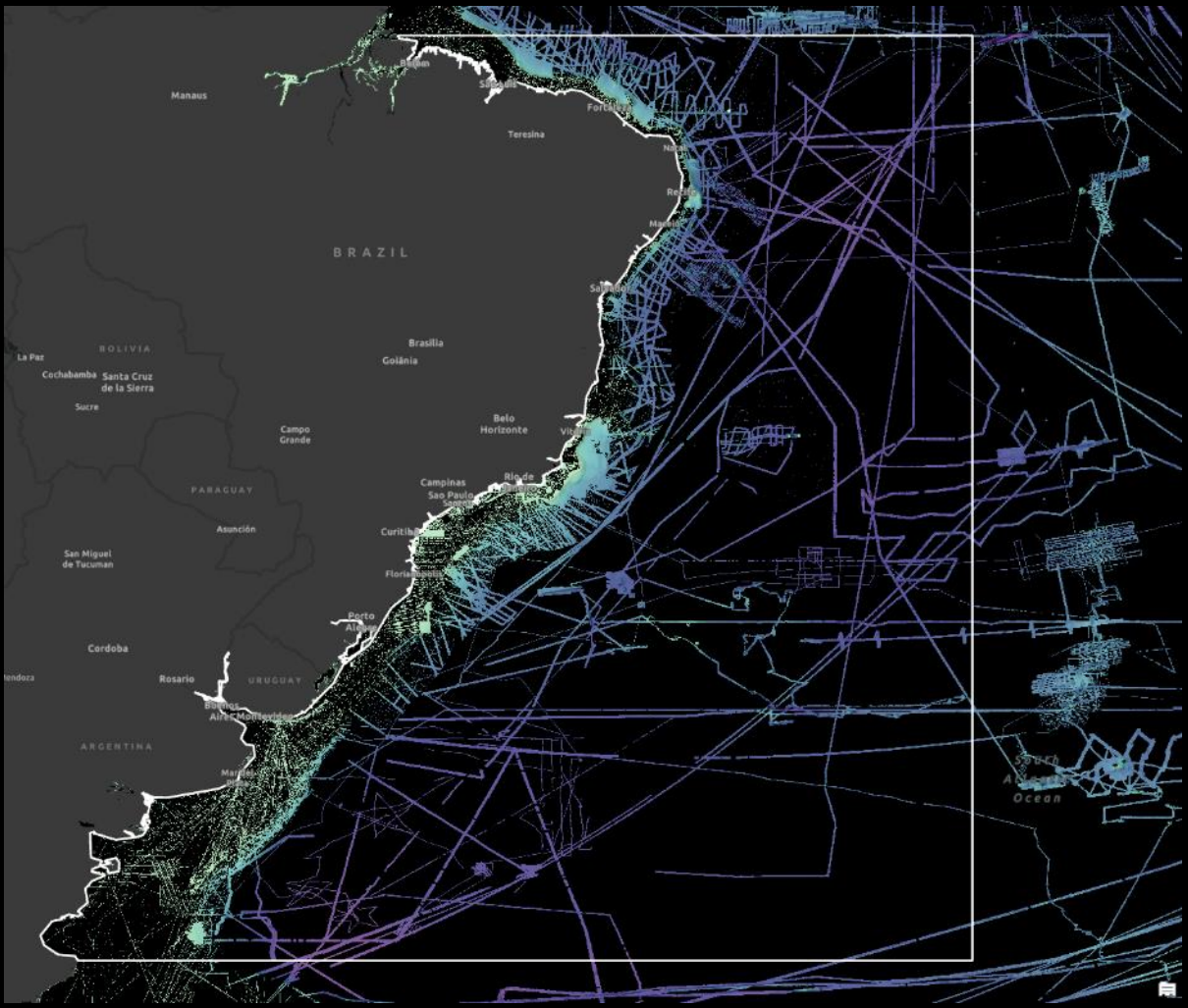


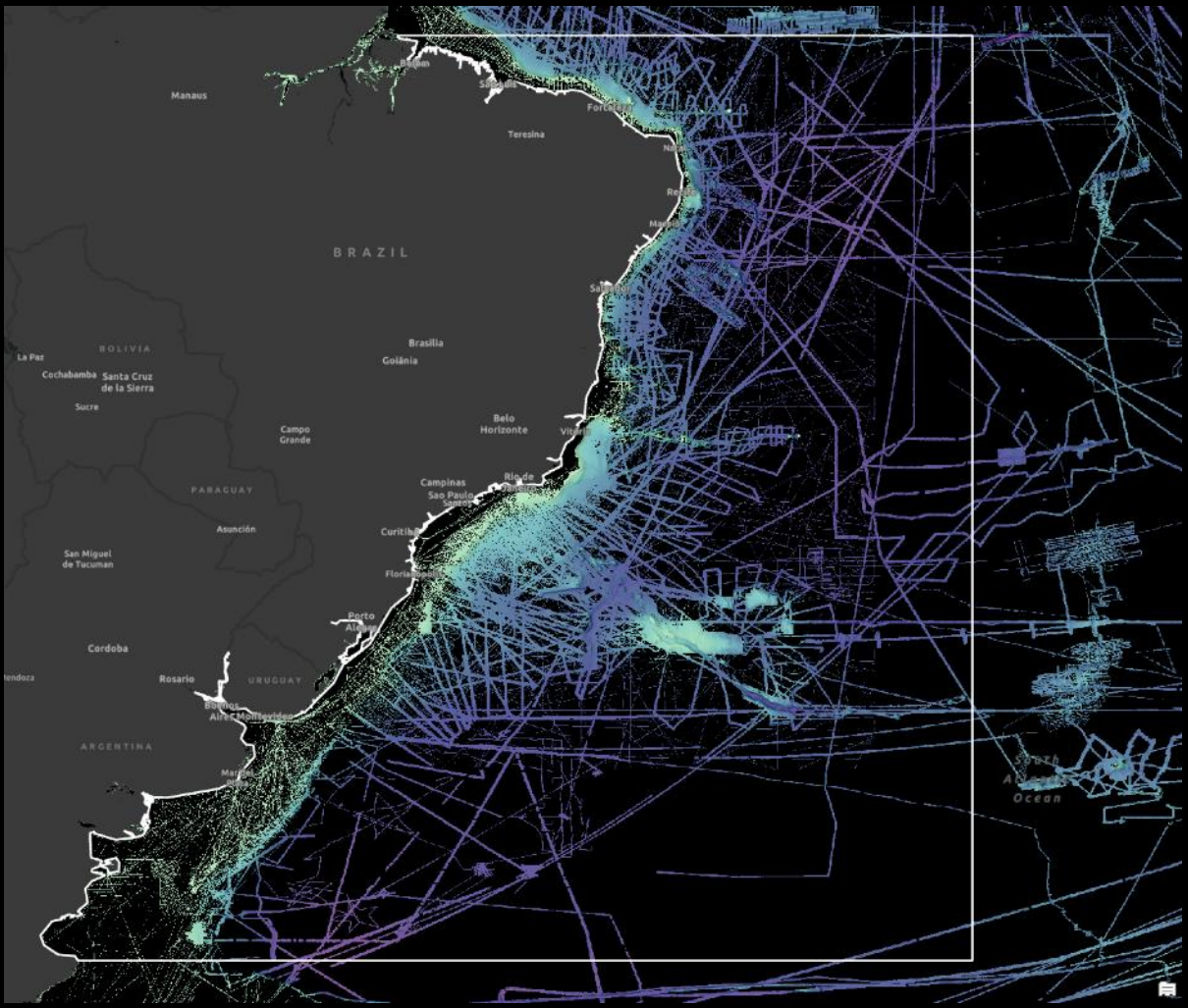












# Overview of Data in the SWAtHC region

- Multiple sectors
  - Government
  - Academia
  - Industry
- Multiple data types
  - ENC
  - Multibeam
  - Singlebeam
  - Seismic
- Curated data from 9 countries

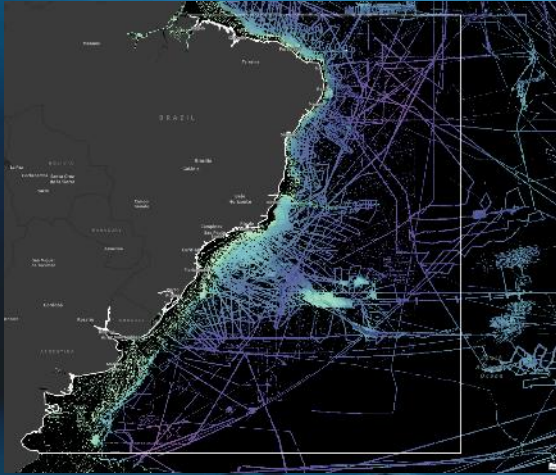


THANK YOU TO ALL CONTRIBUTORS!





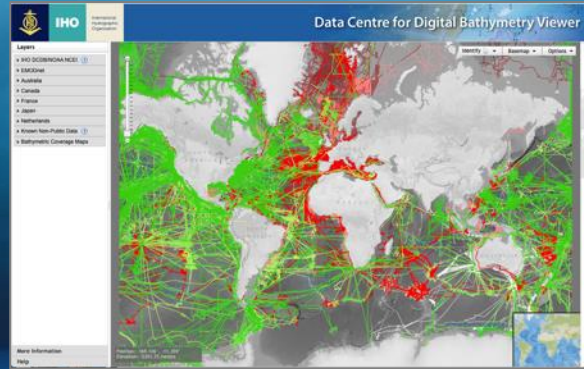
# How much of the SWAtHC region has been mapped?



**GEBCO 2022  
Data Coverage**

**GEBCO 2020: 10.4% mapped  
GEBCO 2021: 21.9% mapped  
GEBCO 2022: 22.6% mapped**

**+**



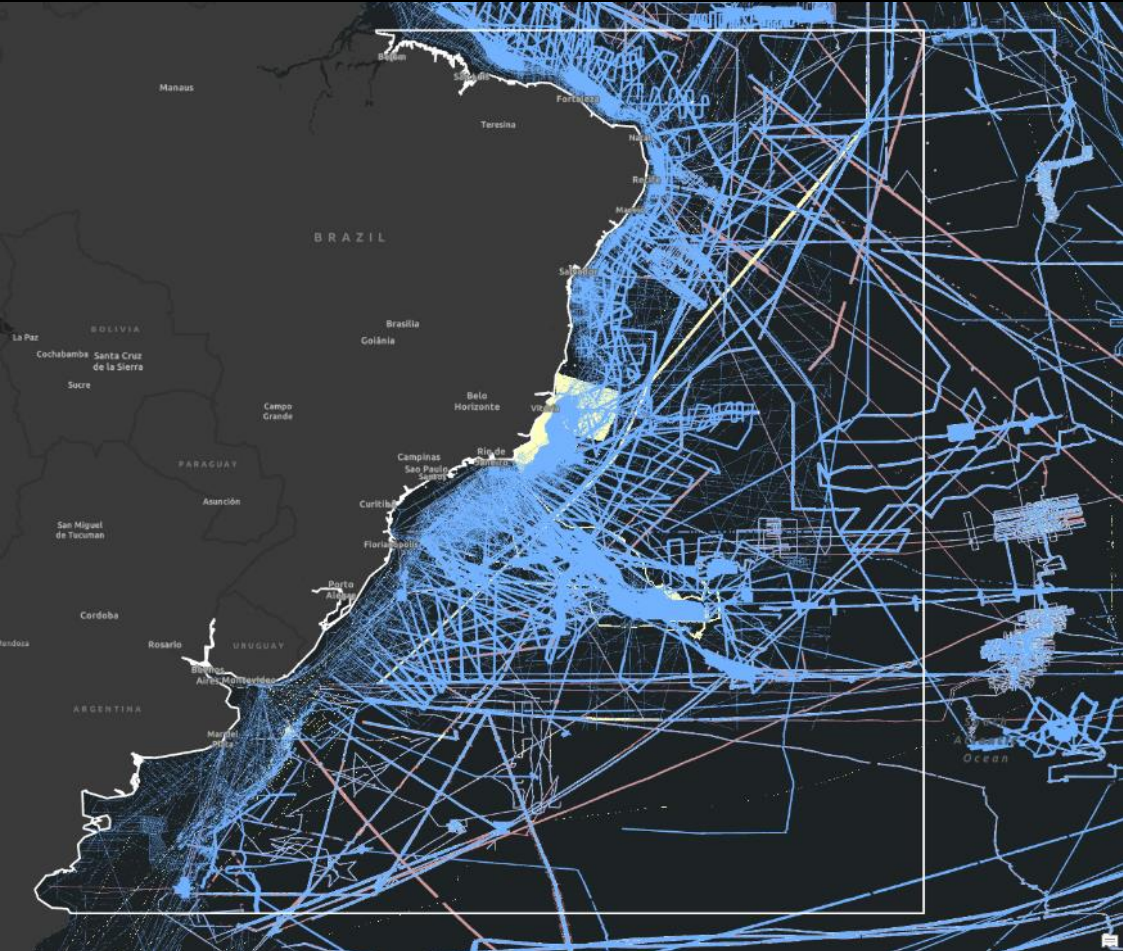
**Known existing data  
not yet shared and/or  
not yet integrated**

**+**

**?**

**Unknown  
existing data  
not yet shared**

GEBCO 2022 plus newly contributed data



# Ongoing Need for Data Contributions

- ENC data
- Multibeam data
- Single beam data
- CSB data
- Gridded products
- Polygons of data coverage
- Metadata



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[https://www.gebco.net/about\\_us/contributing\\_data/](https://www.gebco.net/about_us/contributing_data/)



# How to Contribute Data

[https://www.gebco.net/about\\_us/contributing\\_data/](https://www.gebco.net/about_us/contributing_data/)

Home Data & Products ▾ Seabed 2030 Training News & Media About ▾ Contact



## Contributing Data



Home » About » Contributing data

### How to contribute data

Please use the form below to make contributions of multibeam and/or single-beam survey data, individual soundings or existing grids to help update our gridded data sets and products. If you have any problems in completing the form, then please email this information to the Global Center ([gdacc@seabed2030.org](mailto:gdacc@seabed2030.org)). Watch a [short video](#) on how to contribute data.

GEBCO releases a new global grid every year, generally in late June. Find out more about the [grid generation process](#).

We value all data sets contributed to help us map the seafloor and will make every effort to include them in the next grid release. However, **please note that any new contributions received after January may not be included in this year's grid but will be considered for future releases.**

#### Jump to

- [> Our data contributors](#)
- [> Join the Crowdsourced Bathymetry initiative](#)

#### Share this



## GEBCO Data Contribution Form

GEBCO's aim is to provide the most authoritative, publicly-available bathymetry of the world's oceans. It operates under the joint auspices of the International Hydrographic Organization (IHO) and the Intergovernmental Oceanographic Commission (IOC) (of UNESCO). GEBCO is continually working to improve its data products and gratefully acknowledges all data contributions to help map the gaps.

Seabed 2030 is a collaborative project between The Nippon Foundation and GEBCO to inspire the complete mapping of the world's ocean by 2030 and to compile all bathymetric data into the freely-available GEBCO Ocean Map.

#### PRIVACY NOTICE:

Your email contact will only be used by the GEBCO and the Seabed 2030 Team to contact you about the data sets of which you have made us aware. We will take all reasonable precautions to protect your personal data from loss, misuse, or alteration. We will not forward or sell on your email contact to 3rd parties.

# Accelerating Toward 2030:

- Technical Innovation
  - Data acquisition
  - Data synthesis & integration
- Collaboration
  - Leverage efforts to work toward common goals
  - Share knowledge, data, approaches, workflows, and tools
  - Prioritization for mapping campaigns



# Thank you!

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*[www.seabed2030.org](http://www.seabed2030.org)*

