

# AOMI Database Workshop: Enhancing Ocean Microplastics Monitoring

Explanation of QC and data policy,  
including demonstration of data submission  
and utilization, and data processing methods

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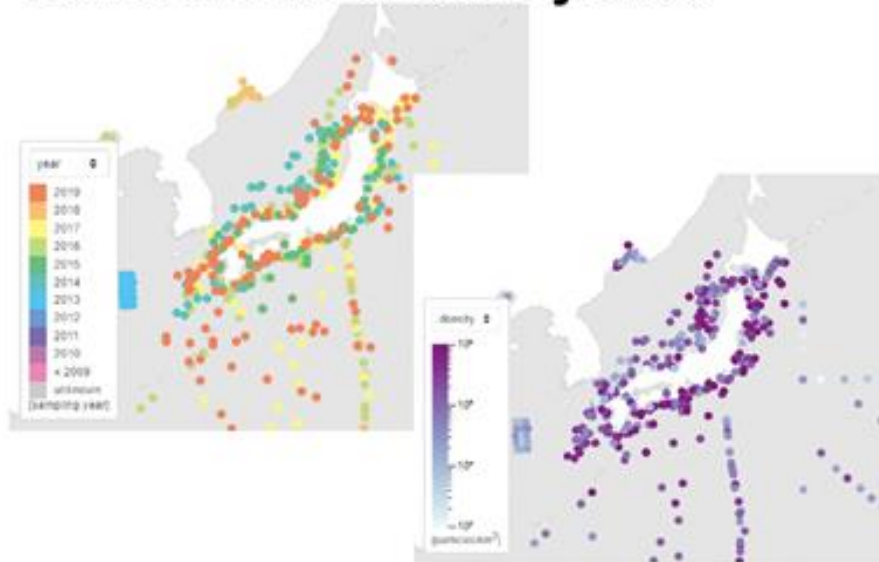


# Atlas of Ocean Microplastics

## What's AOMI

- **Global MPs dataset** & its website
- **the ministry of Environment, Japan organize it**
- **COPS works as a data manager of AOMI**

### Distributions of survey sites



### Distributions of particle density

Simple aggregation by grid



For more information, please visit website of AOMI <https://aomi.env.go.jp/>

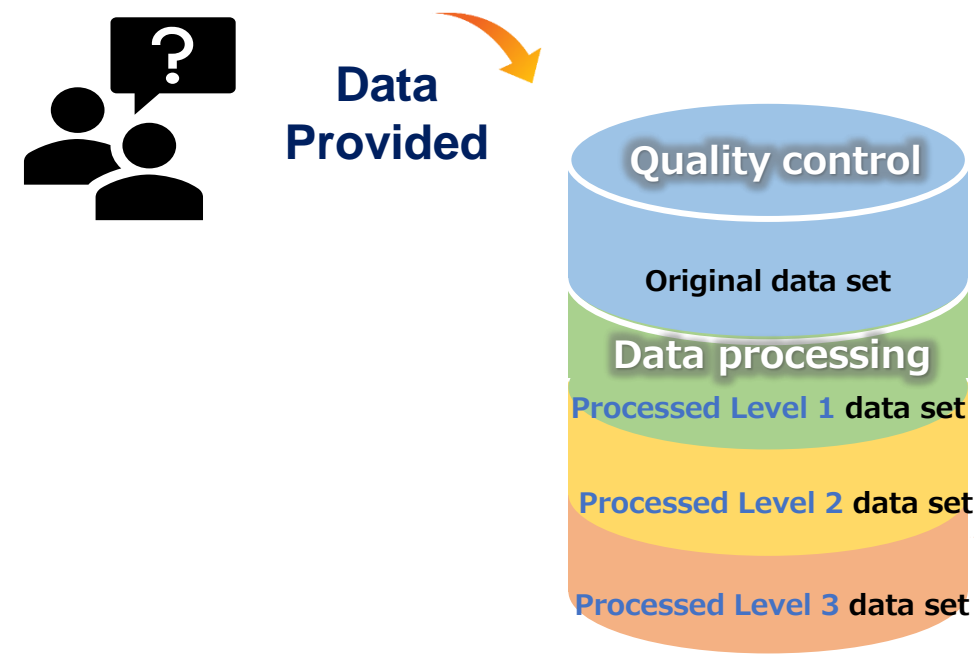
# About the data you can use

Sampling points  
over **13,000**

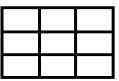
Data from  
**19** Countries

Data type  
**4** types

## Researchers



Data	Specification
Level 0	Original data
Level 1	Data extract fiber data
Level 2	Converted to Mass data & area abundance data
Level 3	Gridded data



Data



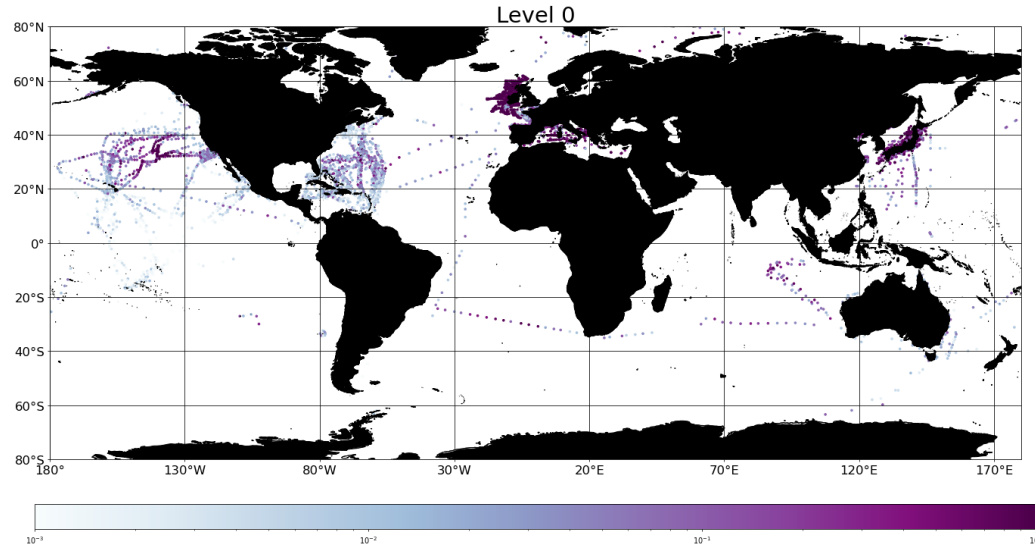
2D Map



Graph

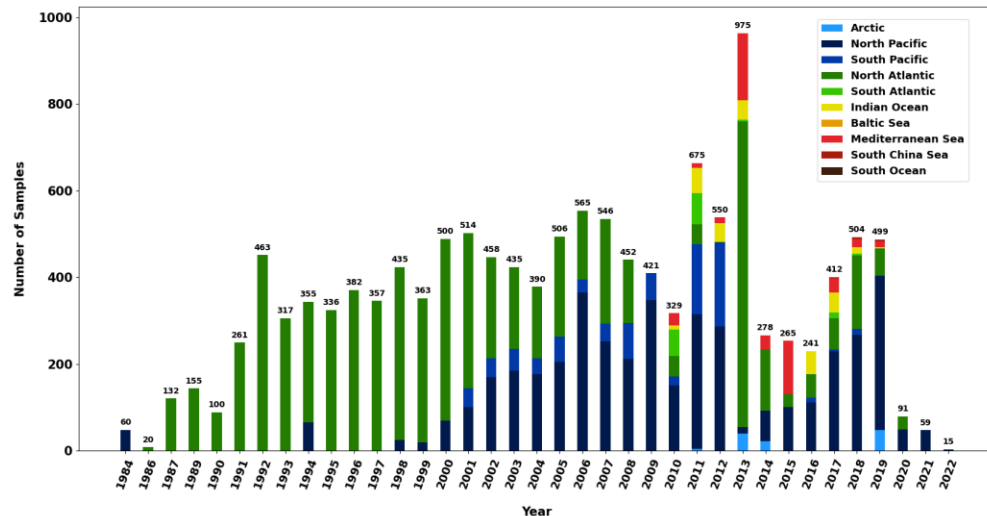
For more information, please visit website of AOMI <https://aomi.env.go.jp/>

# About the data you can use



## *Data description:*

- The data from the North Atlantic and north Pacific Oceans is the main portion of the data set



The data is updating but....

**We are waiting for your contribution  
to the AOMI database!**

You can share your valuable data to data center by two ways

1. Through the AOMI website
2. Via an E-mail

Currently, for the either method to share your data, AOMI would like to ask you to

- Use the data entry form (an excel sheet)
- Small interaction with a staff member to check the detail of your data

# How to provide your data to AOMI

## 1 Visit our website

[UPLOAD FORM](#)

**Form File.xlsx**

(Please find "Data Entry Form Sheet & Data List Sheet")

Please create your data files using the templates provided in the upload area below.  
Our administrators will review the data, if there is any data revisions and resubmission.

- Terms of data submission  
Individual data records will be provided to those who provide data by their respective Creative Commons licenses.  
We will use the data you provide to create charts and maps. The data created will be distributed under a Creative Commons license with attribution to this database is given.

Get entry sheet from here

## 2 Fill your information

by describing the

E-mail Address\*:

Name\*:

Organization\*:

Creative Commons License\*:

Dataset Description:

Enter a description of the data

## 3 Upload your data

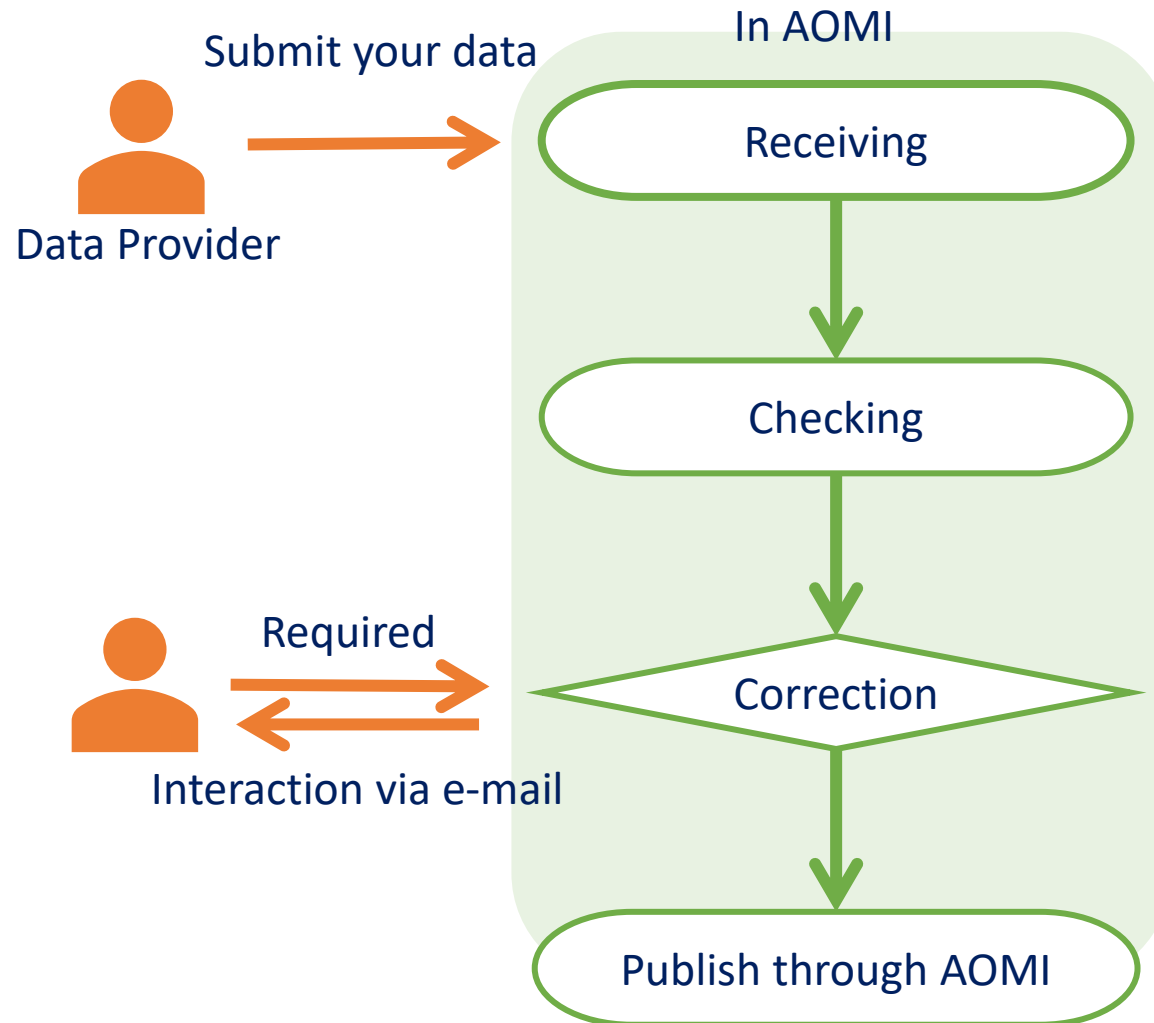
OR

**Terms of use**

For more information, please visit website of AOMI <https://aomi.env.go.jp/>



# After your data submission



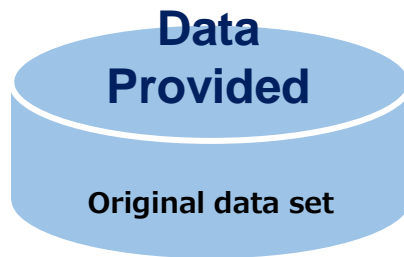
After data submission, AOMI will confirm whether enough information to publish through the AOMI website is registered in the data entry sheet

A single data provider and AOMI staff will interact with each other via e-mail several times.

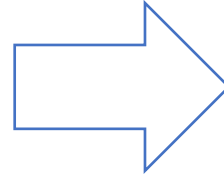
# Quality control (QC)

QC means just **check whether your data is harmonized or not.**

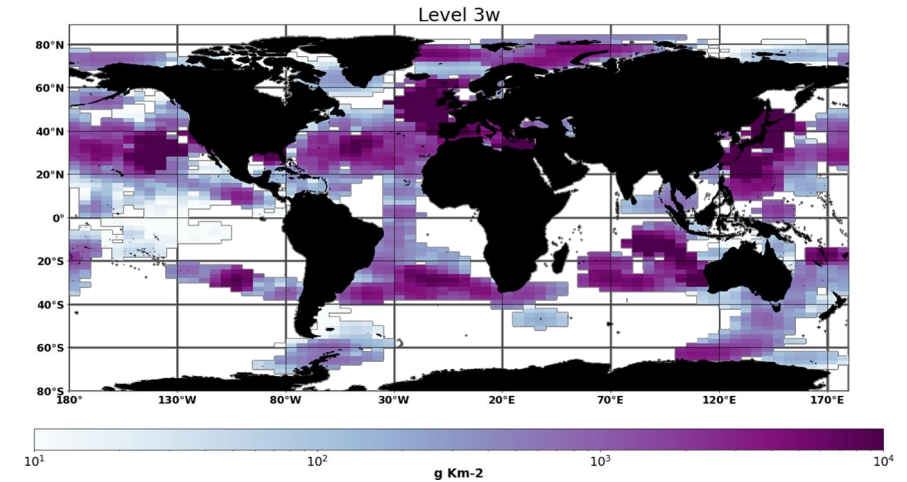
Researchers



Screening



We accept any data



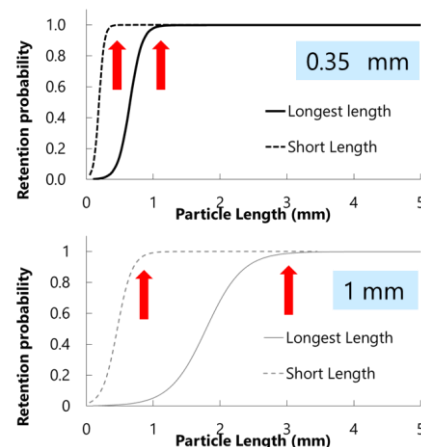
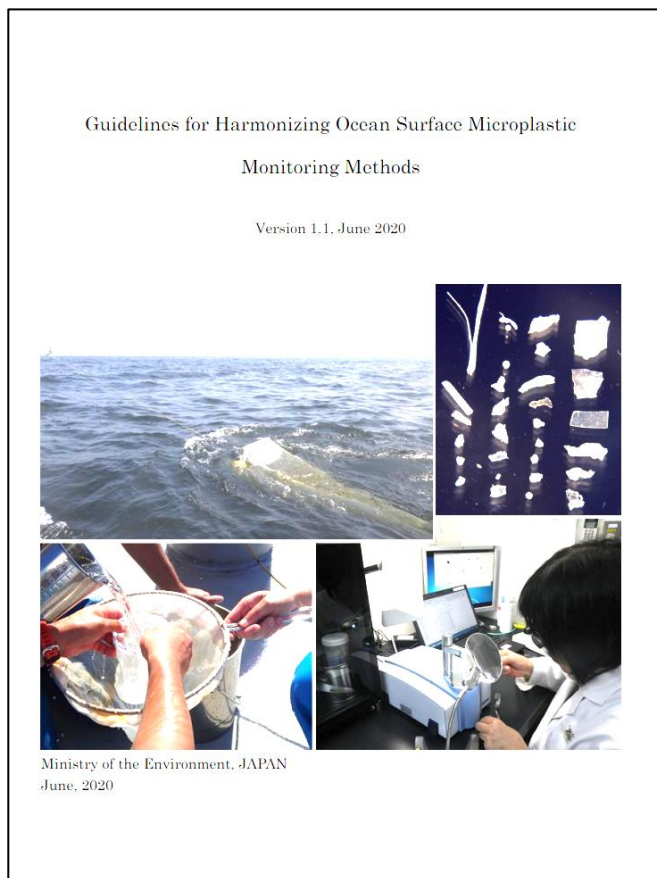
Make a gridded data

**To boost your data value, please use harmonized methods!**



# Harmonized method

## Follow the guide line!



Issue the guideline

Michida et al. (2019)

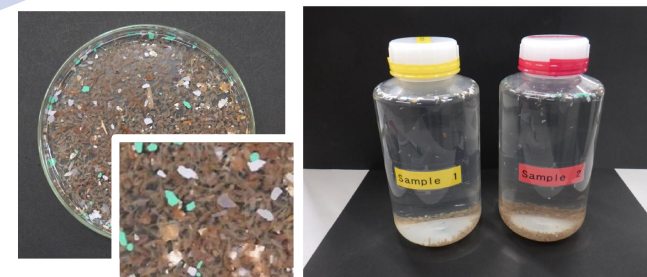
Methods intercomparing  
Isobe et al., (2019)

Data quality check

Tokai et al., (2021)

Global dataset

Isobe et al. (2021)



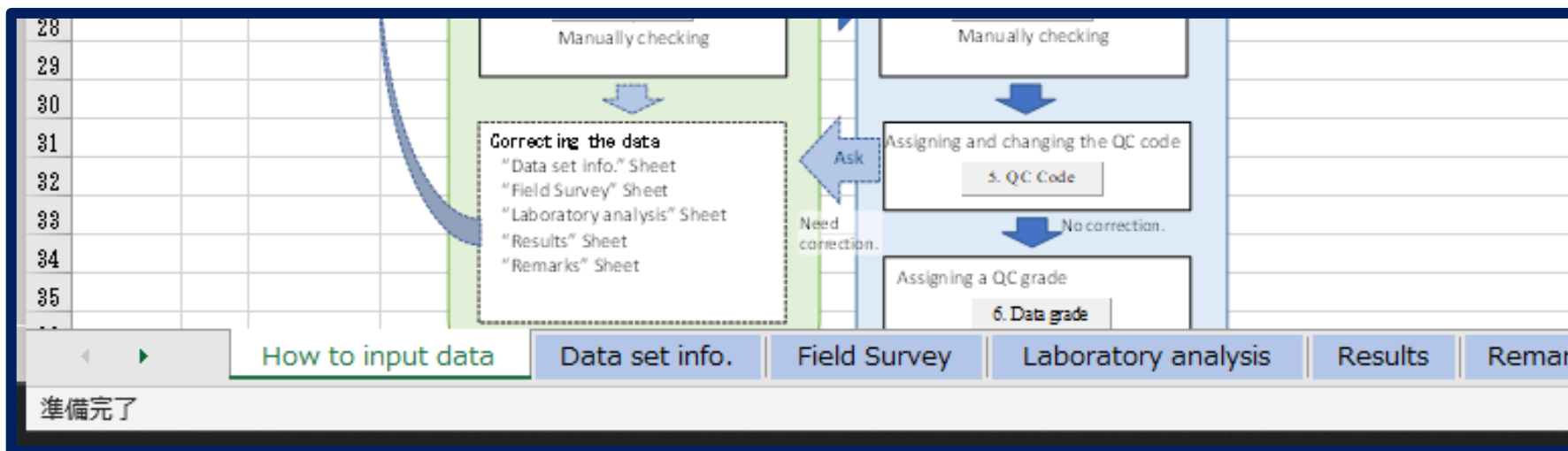
Samples for intercomparing

# Data entry sheet

[https://www.env.go.jp/water/post\\_76.html](https://www.env.go.jp/water/post_76.html)

- In the entry sheet, data providers are asked fill each single sheet shown as five tabs

- 1) Data set info
- 2) Field survey
- 3) Laboratory analysis
- 4) Result
- 5) Remark



# Data entry sheet (example, field survey tab)

- The data providers fill each single cell based on their records
- Some of the information can be referred to by all of the sampling points (no need to fill them one by one)
- Same as this sheet, providers fill the other four tabs

2								
3								
4	Item ID	Description of data item	Example	Category	Data entry field			
5					All samples	Each samples		
6	0012	Name of voyage when the sample was taken.	Japanese off-shore		Ko Si Chamg island survey			
7	0053	Name of vessel used for sample collection.	Kiraku-maru		Chula research			
8	0055	Code of vessel used to collect the sample: either the v	XXXXXX					
9	0056	Name of instrument used to collect the sample, includ	Neuston net	E	Neuston net			
10	0058	Model of instrument used to collect the sample.	JMA Neuston net, No.5552					
11	0060	Shape of sample collection port.	Rectangular	E	Rectangular			
12	0062	Width of the sampling port, in meters.	0.75	FC / E	0.75			
13	0064	Height of sampling port, in meters. If the top of the sa	0.75	E	0.375			
14	0066	Height of sampling port, in meters. If the shape of the	0.5625	E	0.28125			
15	0068	Length from the opening of the net to the very end of	3	E	2			
16	0070	Length of the open part of each stitch in the net. This	0.35	E	0.35			
17	0072	Whether the length of the mesh eye opening (#0070)	One side	E	One side			
18	0074	Net model number, standard, etc.	net fabric nip					
19	0094	Location of sampling device relative to the research v	Side	E	Side			

# Data entry sheet (self checking by data provider)

After filling the data, the provider can check the data using Macro of Excel

A	B	C	D	E	F	G	H	I	J	K	L	M	
	1. Make list		2. Format		3. Data check 1		4. Data check 2		5. QC Code		6. Data grade		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Data ID	Data version	Release Date	Name	QC code of #0004	Location	QC code of #0006	Location code	Organization	QC code of #0009	Organization code	Cruise name	QC code of #0012	Ref

The data will be checked by providers, considering with some points

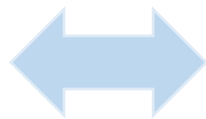
## Seems to be errors

- Obviously data value is wrong (temperature exceeds 100°C)
- Inconsistent (e.g., start time is after the end time)

The data will be distributed to through the AOMI website.

## *Need to agree*

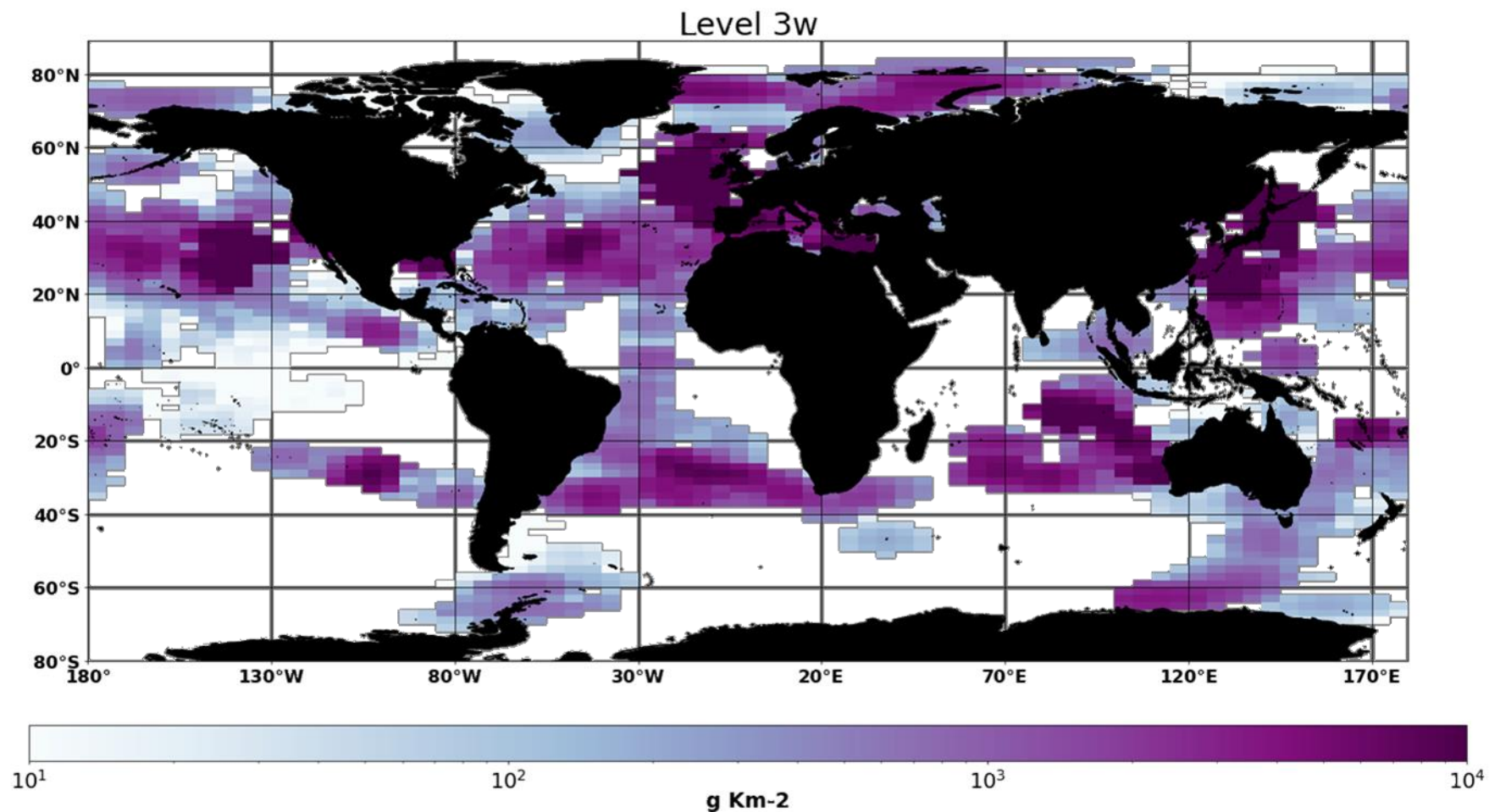
1. The data distribution to others
2. Use your data to make gridded data or others (making figures)



## *You can achieve*

1. Opportunities to get more citation  
(we will share reference information list to users)
  2. Better database  
(Can be compared with your numerical simulation)
- ➔ Contribute to not only Japan, but also your own country!  
**AOMI is global data base**

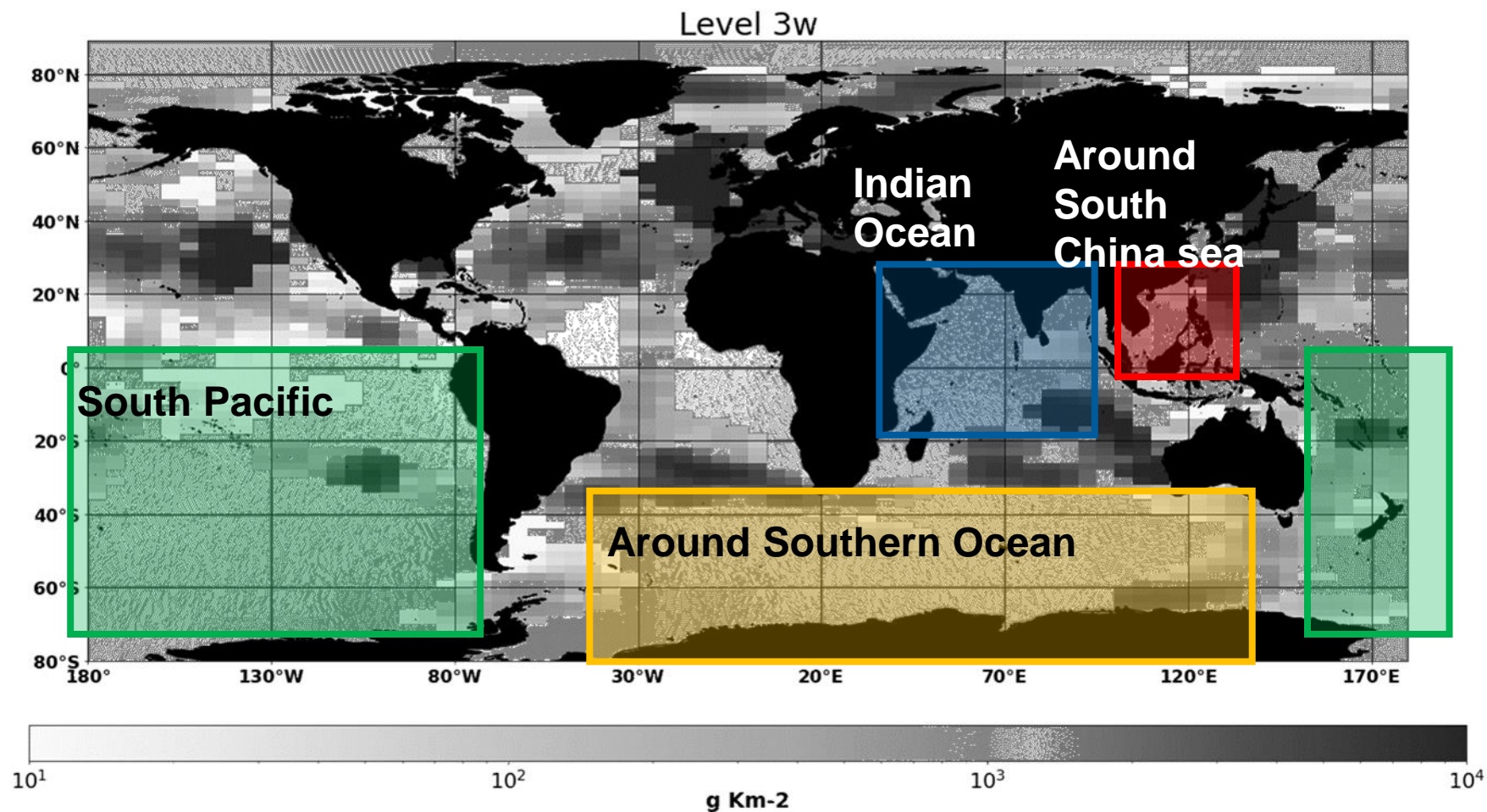
# Work with a better global dataset!



For more information, please visit website of AOMI <https://aomi.env.go.jp/>



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