

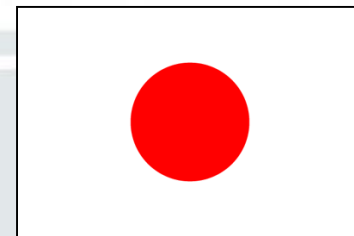
Progress in addressing marine litter in Japan — Efforts to Combat Marine Litter in Japan —

September 19th, 2017

Office of Marine Environment of Ministry of the Environment



Ministry of the Environment



CONTENTS

1. Overview of Marine Litter in Japan
2. Actions under Marine Litter law in Japan
3. Marine Litter Research by MoE
4. International cooperation
5. Efforts to microplastics issue by MoE



1. Overview of Marine Litter in Japan



Nagasaki Pref. (Tsushima-city)



Yamagata Pref. (Tobishima)



【Damage caused by marine litter】
Bad effects on ...

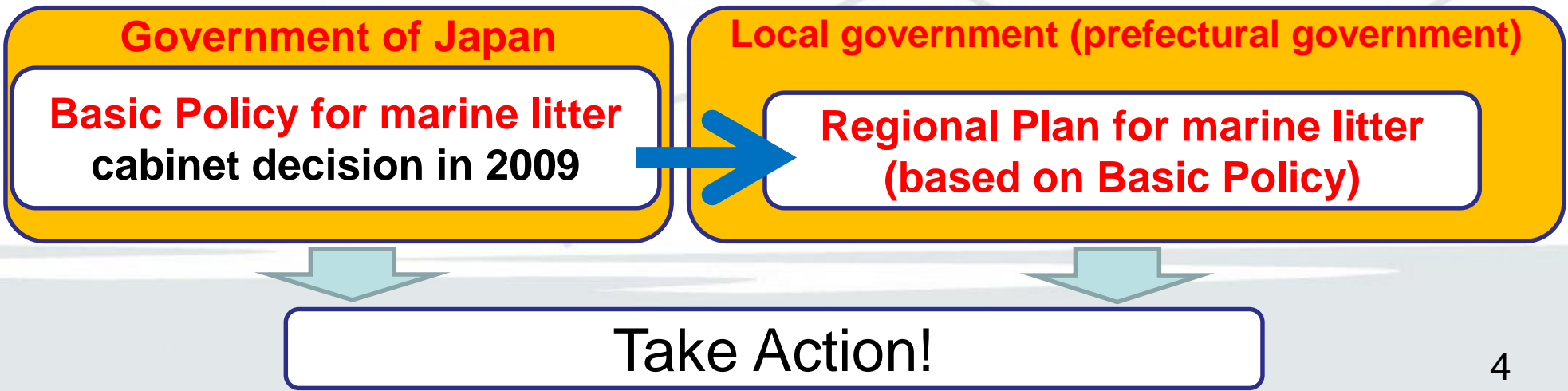
Marine Environment, Beautiful Beach... Tourism
Ecosystem, Fishery Operation, Ship Navigation etc.





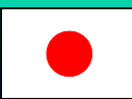
Marine litter law (enforced in 2009)

- Purpose
 - To conserve good landscape and environment, by promoting smooth removal action and effective reduction of marine litter generation.
- to achieve the comprehensive and effective promotion
 - Clarify respective responsibility of relevant organizations
(National government, local government, the Coast Administrator ,etc.)





2. Actions under Marine Litter Law in Japan



Japanese Marine Litter Policy

Marine Litter Law

The Government

The Promotion Council of marine litter policy is set up within the government



Cooperation under The Promotion Council of marine litter policy

Ministry of the Environment.

- The Secretariat of the Promotion Council in order to manage the affairs of the council.
- Responsibility for Management of Marine litter (excluding matters related to other ministries).
- Responsibility for waste management (the Waste Management and Public Cleaning Act etc.) and establishment of a sound material-cycle society (including promotion of Recycling system etc.).

Ministry of Economy, Trade and Industry.
Industrial activities .

Ministry of Agriculture, Forestry and Fisheries
Fishery based litters, Trees from mountains.

Ministry of Land, Infrastructure, Transport and Tourism
River side litter, debris in Port and Sea Route area.

Japan Meteorological Agency
Research for plastic debris

Japan Coast Guard
Public awareness for Marine Environment conservation



2. Actions under Marine Litter Law in Japan



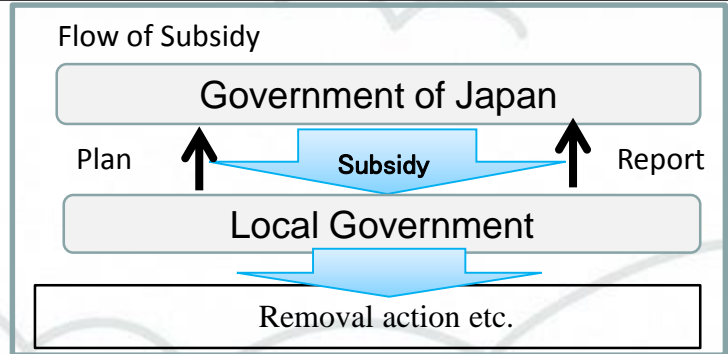
Subsidy Project

to Local government for cleaning up coast, reducing generation etc.

National Budget		2009 - 2012 About	54 million US\$
		2013 - 2014 About	91 million US\$
		2015 About	26 million US\$
		2016 About	27 million US\$

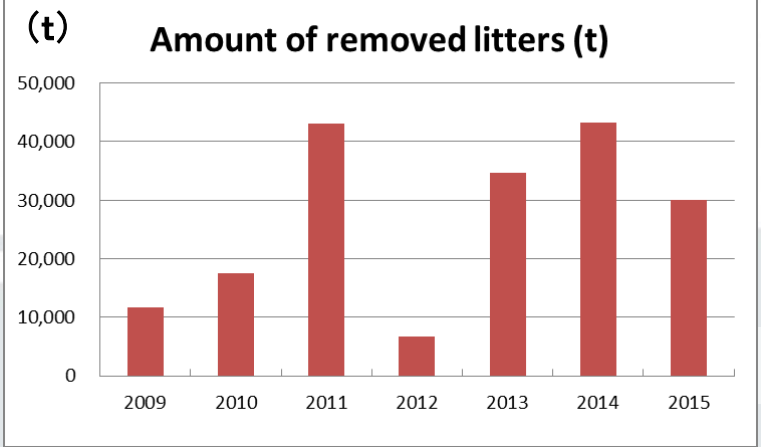
US\$1= JY110

- Subsidy money can be used for
 - Cleaning up coast
 - Reducing generation
- From 2015, removing **drifting** and **sea bed litters** is added to the menu of subsidy.



Result of Subsidy Project by Government of Japan

Fiscal year	2009	2010	2011	2012	2013	2014	2015	2016
Budget (Thousand US\$)	54,182				90,800		25,910	27,272
Used Budget (Thousand US\$)	2,182	14,073	29,127	5,464	29,945	45,318	24,536	—
Amount of removed litters (t)	11,760	17,584	43,058	6,617	34,610	43,259	30,100	—





2. Actions under Marine Litter Law in Japan



Measures for outreach and education order to reduce generation of marine litter

- Signboard
- Preparation and Distribution of brochures
- Holding of seminars
- Campaigns and Events of environment
- Patrol
- International exchange
- Web sites and SNS
- Preparation and Distribution of posters
- Education in school
- Campaigns and Events of environment
- Cooperation with NPO/NGO



こども探検隊 団員大募集

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川と海つながり共創プロジェクト

第14回 海ごみサミット

16 三重会議

10/28(金)・29(土)
伊勢市観光文化会館大ホール

10/30(日)
伊勢市立西宮小学校

入場料 無料

環境教室

NPO法人「クリック・ザ・ネイチャー」主催

京都保津川ラフティング体験
河川ゴミから見る京都保津川

2016年3月26日(土)27日(日)の2日間開催

京都府亀岡市保津川(稲荷川支流)から3次保津川までの約6キロ

10/28(金)・29(土)
伊勢市観光文化会館大ホール

10/30(日)
伊勢市立西宮小学校





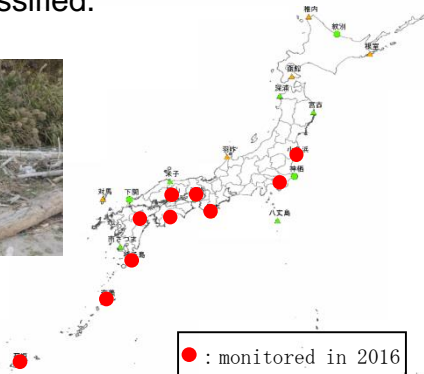
3. Marine Litter Research by MoE



Monitoring on marine litter is conducted on the coasts around Japan, and visual observation of floating marine litter, microplastics survey and seabed marine litter survey are conducted in coastal waters (Mutsu Bay, Toyama Bay and Wakasa Bay in 2016) and open oceans by the Government of Japan.

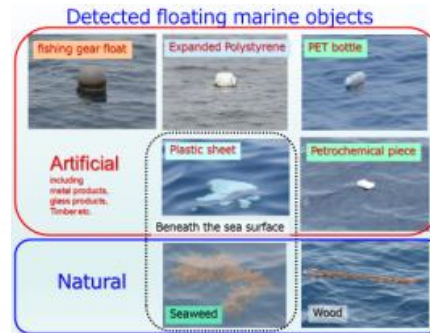
Marine Litter Monitoring on the coasts

Marine Litter Monitoring is conducted on 28 coasts for 5 years. Information concerning amount, items, composition and languages on the label (showing the origin), etc. of marine litter is collected and classified.



Visual Observation of floating marine litter

Floating marine litter is observed visually from vessels in coastal waters and open oceans. Density and amount of marine litter are estimated on each ocean.



Seabed Marine Litter Survey

Seabed marine litter is monitored with trawl net in coastal waters and open oceans. Density and amount of marine litter are estimated.



Trawl net



Fishery net collected

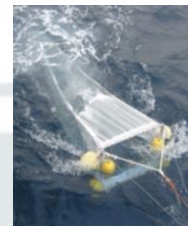
Microplastics survey

Microplastics survey is conducted to promote research on marine pollution. Concretely, the following items are researched,

- distribution of microplastics around Japan
- amount of hazardous chemical substances such as PCB adsorbed on microplastics



Resin pellet



Net sampling



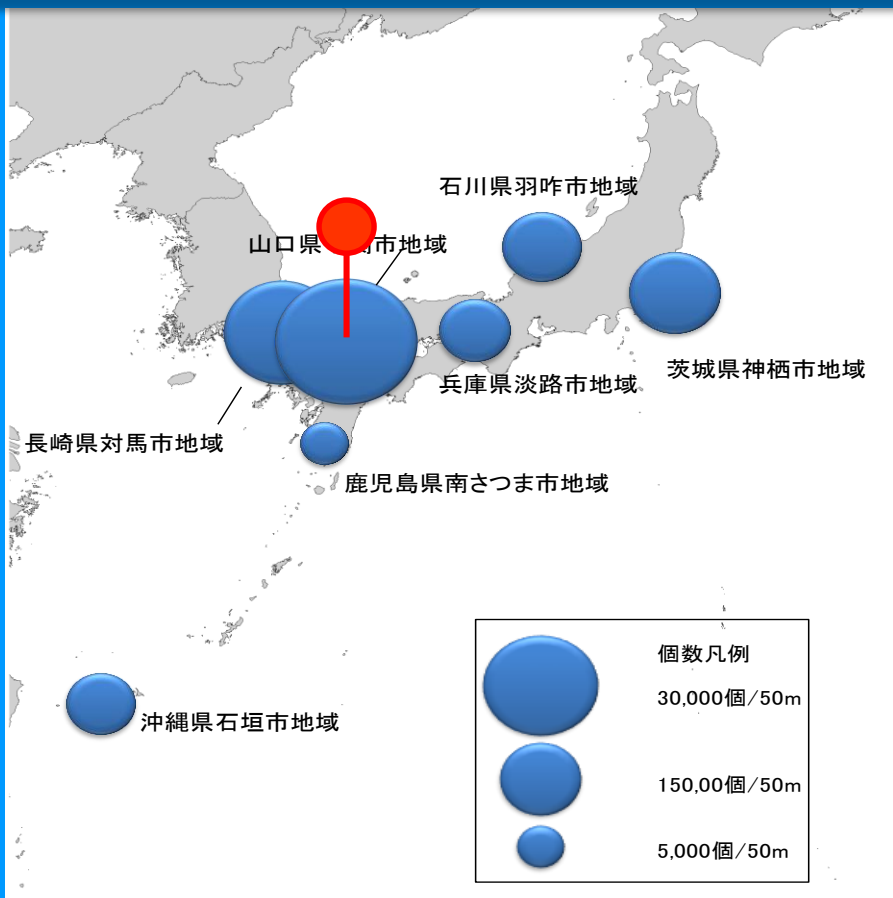
Counting with microscope



3. Marine Litter Research by MoE

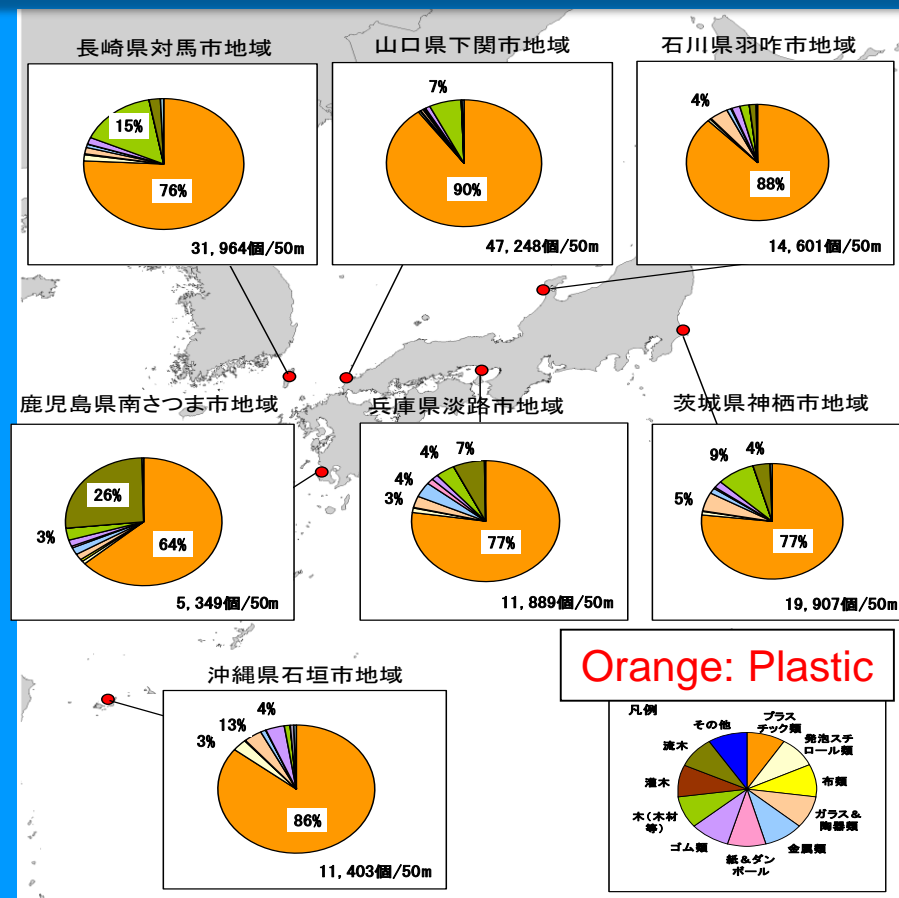


- In Shimonoseki, Yamaguchi Pref., the total amount of marine litter for 5 years (2010-2014) is the largest (about 47,000 pcs. in the shoreline of 50m).
- Plastics has been collected the most and occupies about 80-90% of the total amount of marine litter at all 7 coasts.



The number of the marine litter on the coasts

※five years: piece of the artifact and shrub are shuffled off.



Ratio by the kind of the marine litter on the coasts

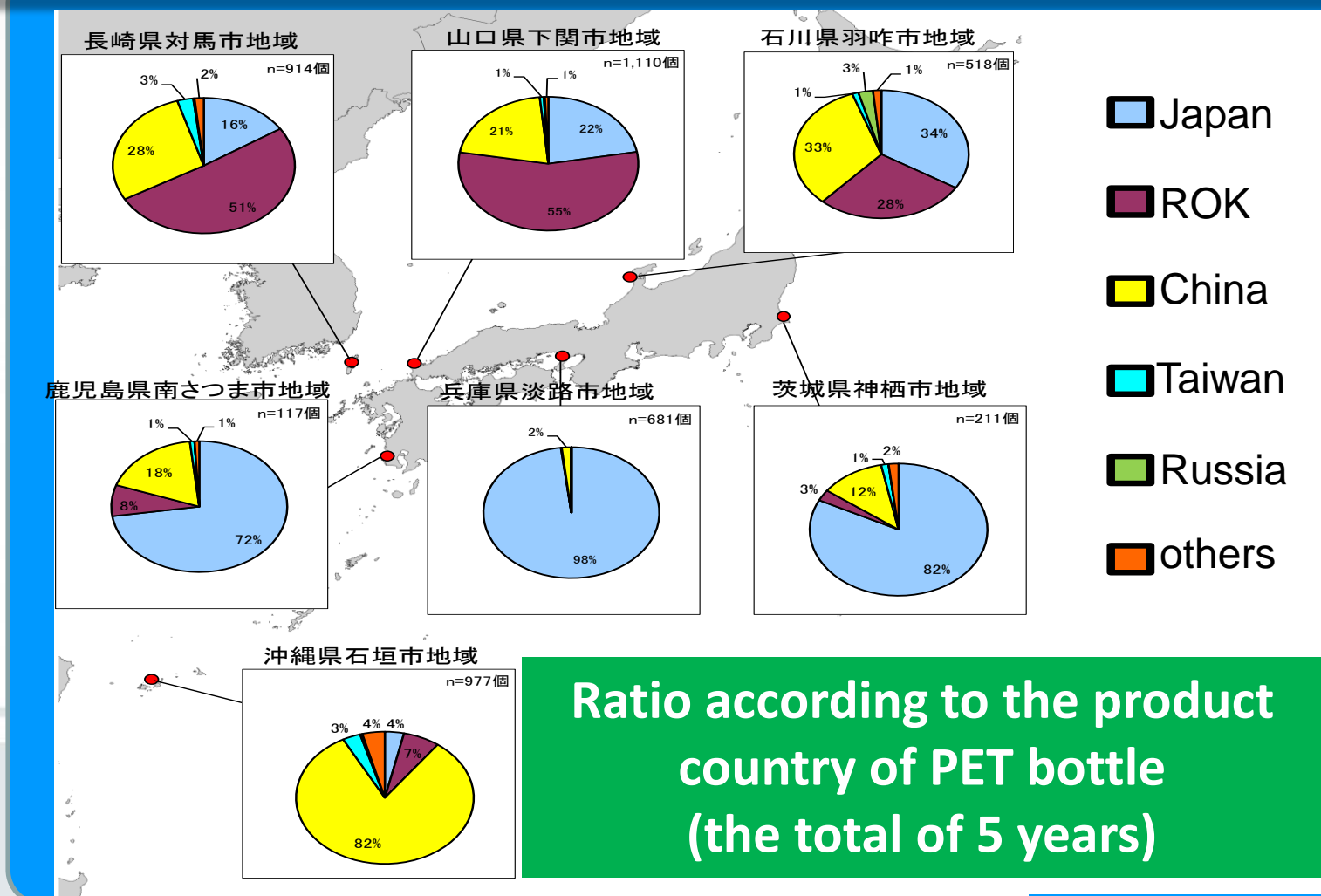
(artifact + natural product)



3. Marine Litter Research by MoE



- Pet bottles collected on the 7 coasts have been classified with product countries for 5 years (2010-2014).
- Many of them collected in some areas were made in Japan and many of them collected in other areas were made in China or ROK.





A result of Survey of actual situation of microplastics by MOE

Ministry of the Environment carried out offshore survey for drifting debris in collaboration with Tokyo University of Marine Science and Technology on July to October in 2015. The purpose of this survey is to grasp the actual condition of drifted microplastics.



海鷹丸 Umitaka-maru

東京海洋大学

Drifting microplastics around Japan

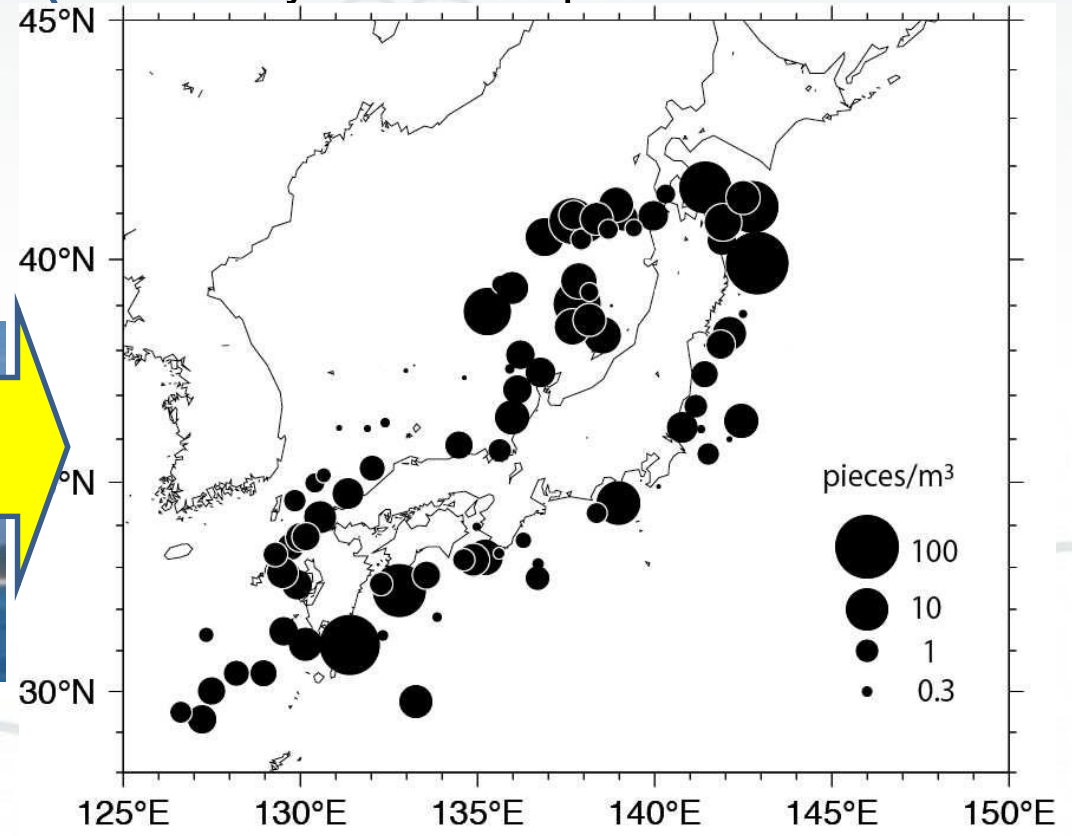


Plankton net



Pieces of microplastic

Distribution of the microplastics density around Japan 2014 and 2015



◆ In 2017, we will carry out this survey in Japanese EEZ of the North Pacific subtropical recirculation area as well as offshore region



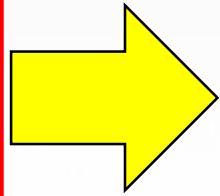
Future development after the G7 Toyama Environment Ministers' Meeting

Global cooperation

G7 Toyama Environment Ministers' Meeting



1. Priority Actions to Address Land-Based Sources
2. Priority Removal Actions
3. Priorities Actions to Address Sea-Based Sources
4. Priority Actions on Education, Research and Outreach



Cooperation at the local level (Japan, China, Korea, Russia)

OTEMM

(Japan and China Korea three countries Minister of the Environment meeting)



ONOWPAP

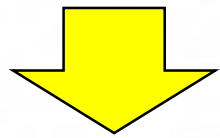


N O W P A P

Northwest Pacific region sea action plan

※others: action by Japan/China, Japan/Korea

Accelerate an regional action



Expand to an international frame

UNEP, APEC, G20, FAO, IMO etc.

Fostering international feeling, and effective, efficient measures are promoted by international cooperation

the 2030 Agenda for Sustainable Development (SDGs)

- As an aim common throughout the global community until 2030, we set sustainable development target (17 goals, 169 detailed targets)
- Goal 14.1: By 2025, prevent all kinds of marine pollution including the pollution by the particularly land activity including the marine garbage and eutrophication and largely reduce





< G7 Ise-Shima Summit > (May 2016)

- Reconfirmed that we will deal with marine litter issue while recognizing that we should try to control and reduce marine litter, plastic in particular, from land base source, as set out in the clause of "resources effectiveness and 3Rs" in the leaders' declaration

< G7 Toyama Environment Minister's Meeting > (May 2016)

- Reconfirmed the importance of "the G7 action plan to deal with the marine litter problem" stated in the Annex to the Leaders' Declaration agreed at Elmau summit of the last year and its effective enforcement. **We, as the G7 nations, are also committed to the enforcement of the priority measures in according with the situation of each member country.**
- We are committed to regular follow-up on actions taken by G7 to share best practices and promote outreach of these measures to other countries

< G7 Bologna Environment Minister's Meeting > (June 2017)

- Determined to further implement the G7 Action Plan to Combat Marine Litter
- We reiterate our concern for the issue of marine litter, in particular plastic litter and microplastics, and reaffirm our commitment to fight this global threat

< G20 Hamburg Summit > (July 2017)

- It is the first time that the issue of marine litter is dealt with at G20 Summit.
- With the efforts of G7 in mind, the launch of the initiative "G20 action plan on marine litter" were agreed, in which measures for marine litter prevention, to promote sustainable waste management, to address education and outreach and so on.



G7, Ise-Shima, Summit (May 2016)



G7 Bologna Environment Minister's Meeting (June 2017)



Priority measures (G7 Toyama Environment Minister's Meeting)

- ① Promotion of environmentally sound waste managements
- ② Promotion of reducing marine litter, and its collection and removal action before it degrades into microplastics
- ③ Promotion of international collaboration working with international organizations such as UNEP, IMO and FAO
- ④ Promotion of outreach and educational activities
- ⑤ Actions towards standardizing and harmonizing monitoring methodologies

In the Workshop held in Berlin in November 2015, it was agreed that Japan will take a lead in the program. MoE has promoted standardization and harmonization of microplastics monitoring methodologies in the ocean. Japan invited several experts from overseas and held an international expert meeting in December 2016 to discuss harmonizing monitoring methodologies of microplastics.



Outcomes of the Expert Meeting

Following two items were discussed in the meeting and summarized by reflecting experts' comments after the meeting in December 2016.

1. Recommendation on microplastics monitoring

- ◆ To identify which area of monitoring needs to be harmonized by each major monitoring items (minimum requirement).
Ex. Tow consideration(time, area etc.), Sampling net, Mesh size, shape, color, plastic type category of microplastics, etc.
- ◆ A draft of harmonized monitoring methods has been prepared.

2. Joint Pilot Survey Plan

- ◆ Collaborative analysis of a standard sample for quality control is planned to estimate scientific data of “experimental variance” rate among microplastics analysis.
- ◆ Next step is planned to estimate a ‘sampling error” by analysis of actual sea water.
- ◆ Details of plan will be discussed in FY2017



<Action in NOWPAP>

- One of the regional sea action plans of the United Nations Environment Program (UNEP).
- Aimed for marine environmental conservation by Japan, Korea, China and Russia
- 2007 - now : Local action plan (RAPMALI)
 - Information sharing of the marine litter by the government of every country
 - Holding of the workshop
 - Enforcement of the shore cleaning campaign



2015 Joint TEMM-NOWPAP ICC

<Action in TEMM>

- A meeting where the Ministers of the Environment of Japan, China and Korea discuss local and global environmental issues and strengthen a collaborative relationship.
- In TEMM19 (Korea, August 2017), we welcomed that the 2nd NOWPAP-TEMM Joint Workshop on marine litter in September 2016 in Russia shared the results of marine litter studies and related policies and confirmed that the 3rd Joint Workshop will be held in 2017 in Japan. We decided to accelerate the exchange of each country's policies on marine waste and related research results under the TEMM framework through the Joint Workshop and working level meetings.



TEMM19



Thank You for your attention!