

Action of the JCG for the marine environment protection including the oil spill response

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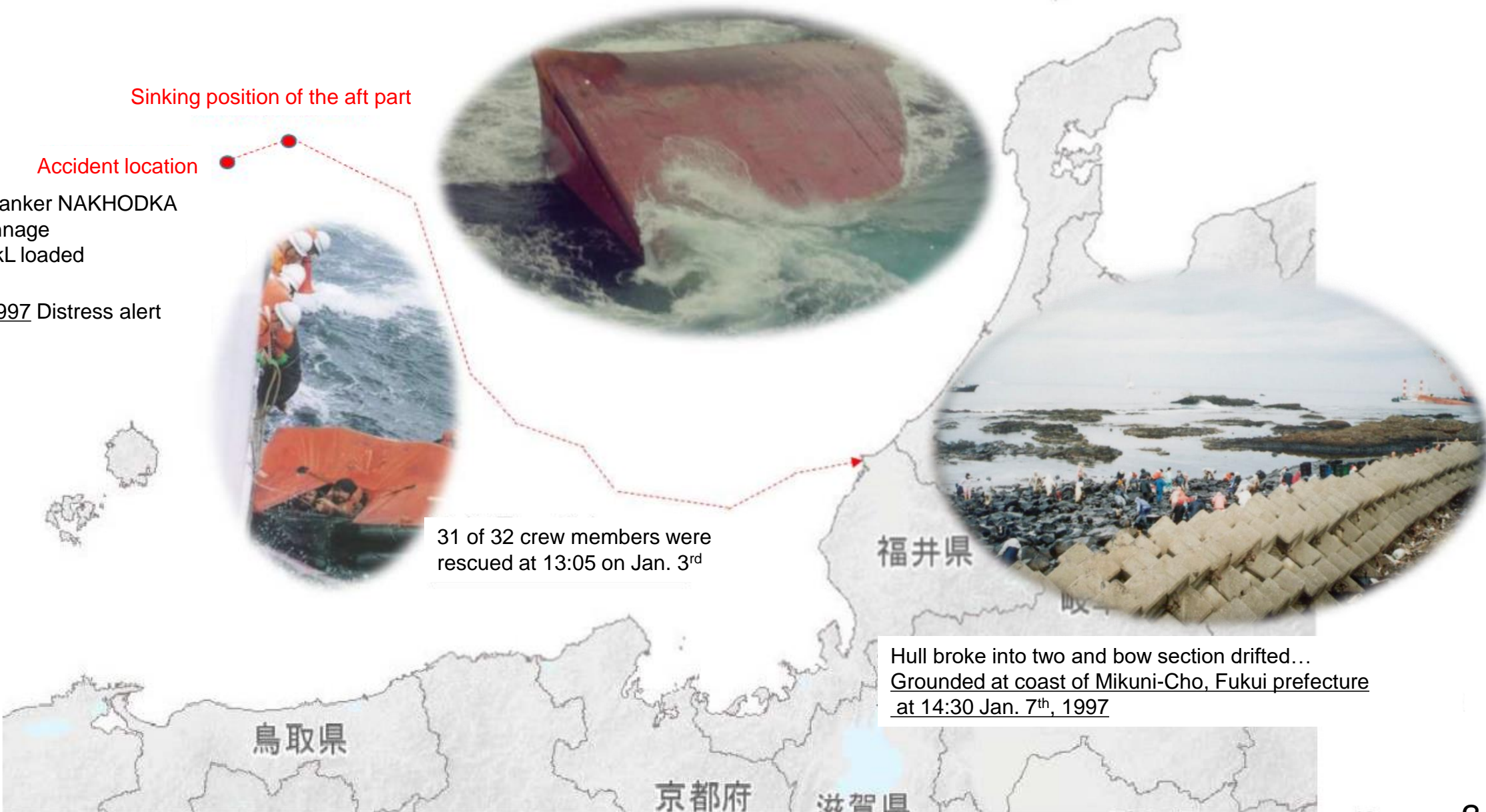




Russian flagged tanker NAKHODKA
13,157 Gross Tonnage
Heavy oil 19,000kL loaded
32 Russian crew
02:51 Jan. 2nd, 1997 Distress alert

Accident location

Sinking position of the aft part



31 of 32 crew members were rescued at 13:05 on Jan. 3rd

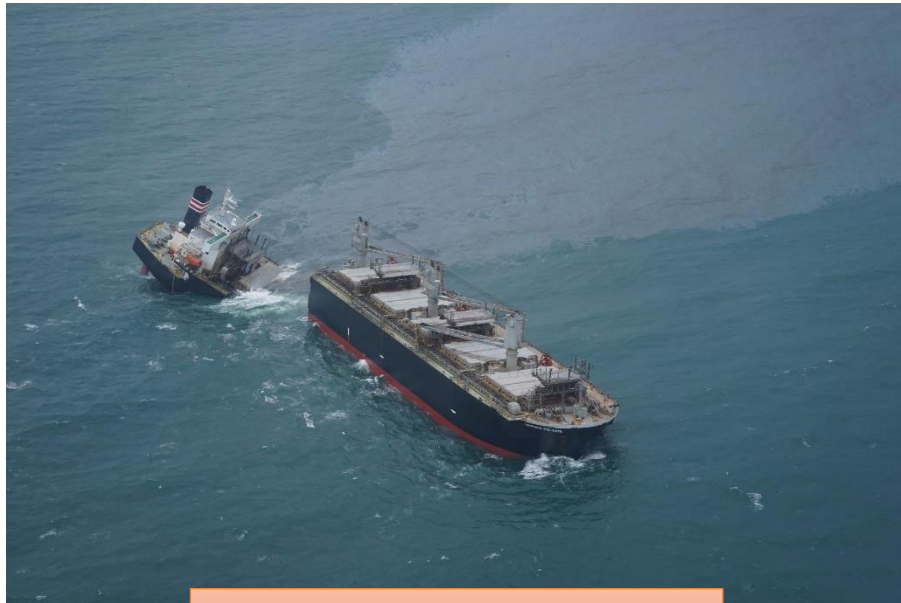
Hull broke into two and bow section drifted...
Grounded at coast of Mikuni-Cho, Fukui prefecture at 14:30 Jan. 7th, 1997

1 Report of Marine Pollution around Japan

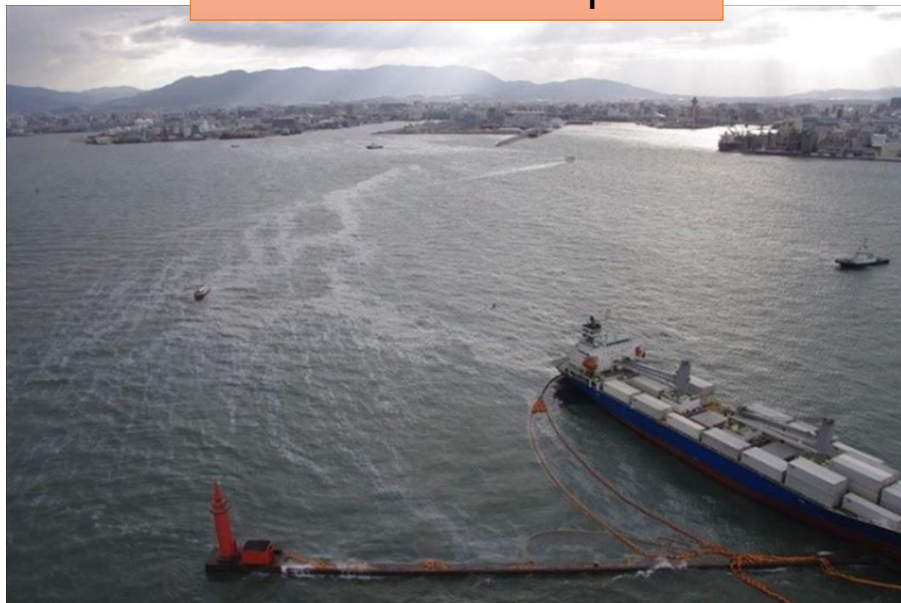
2 Oil spill response system in Japan and JCG's measure

3 Support for Asian countries for oil spill response

4 Preparation for next-generation fueled vessel



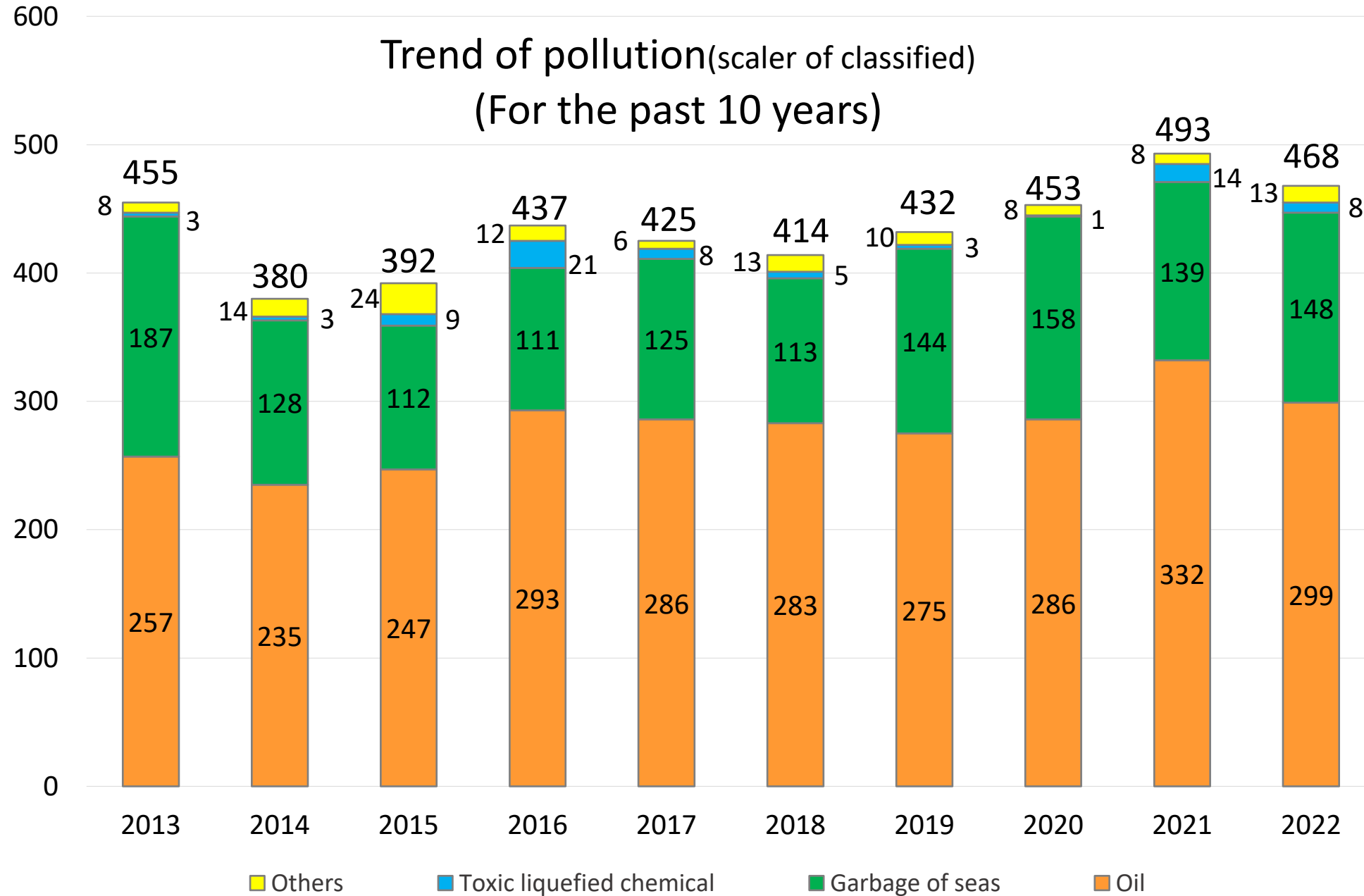
Accidental oil spill



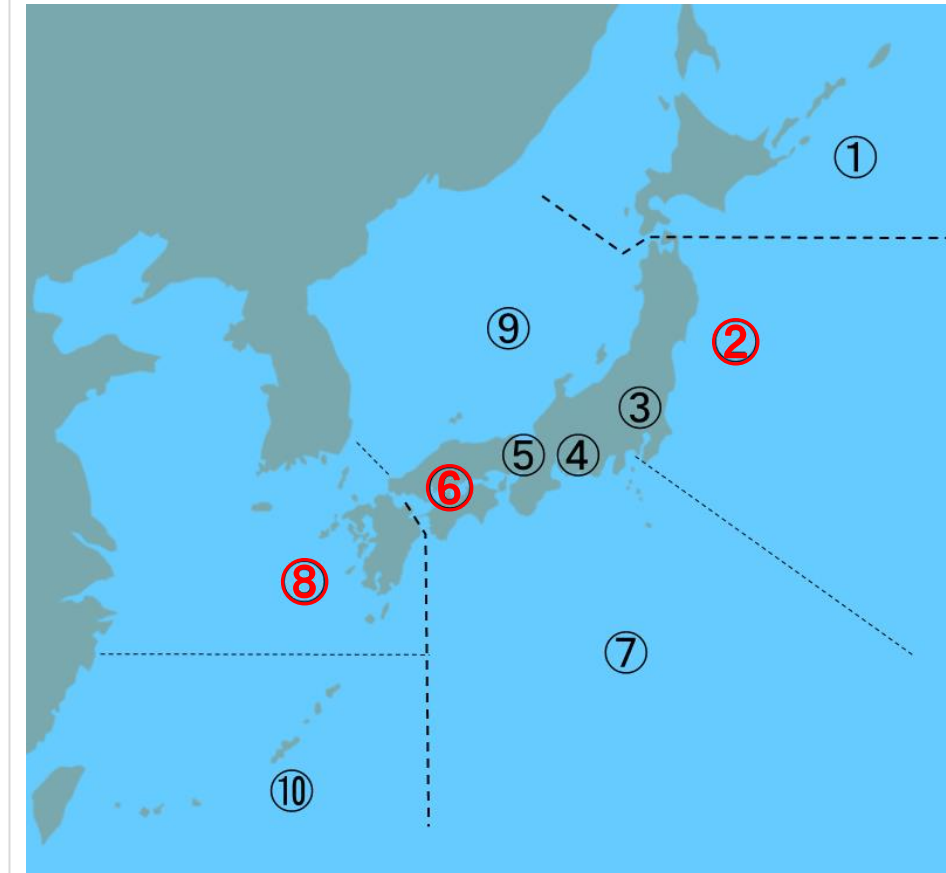
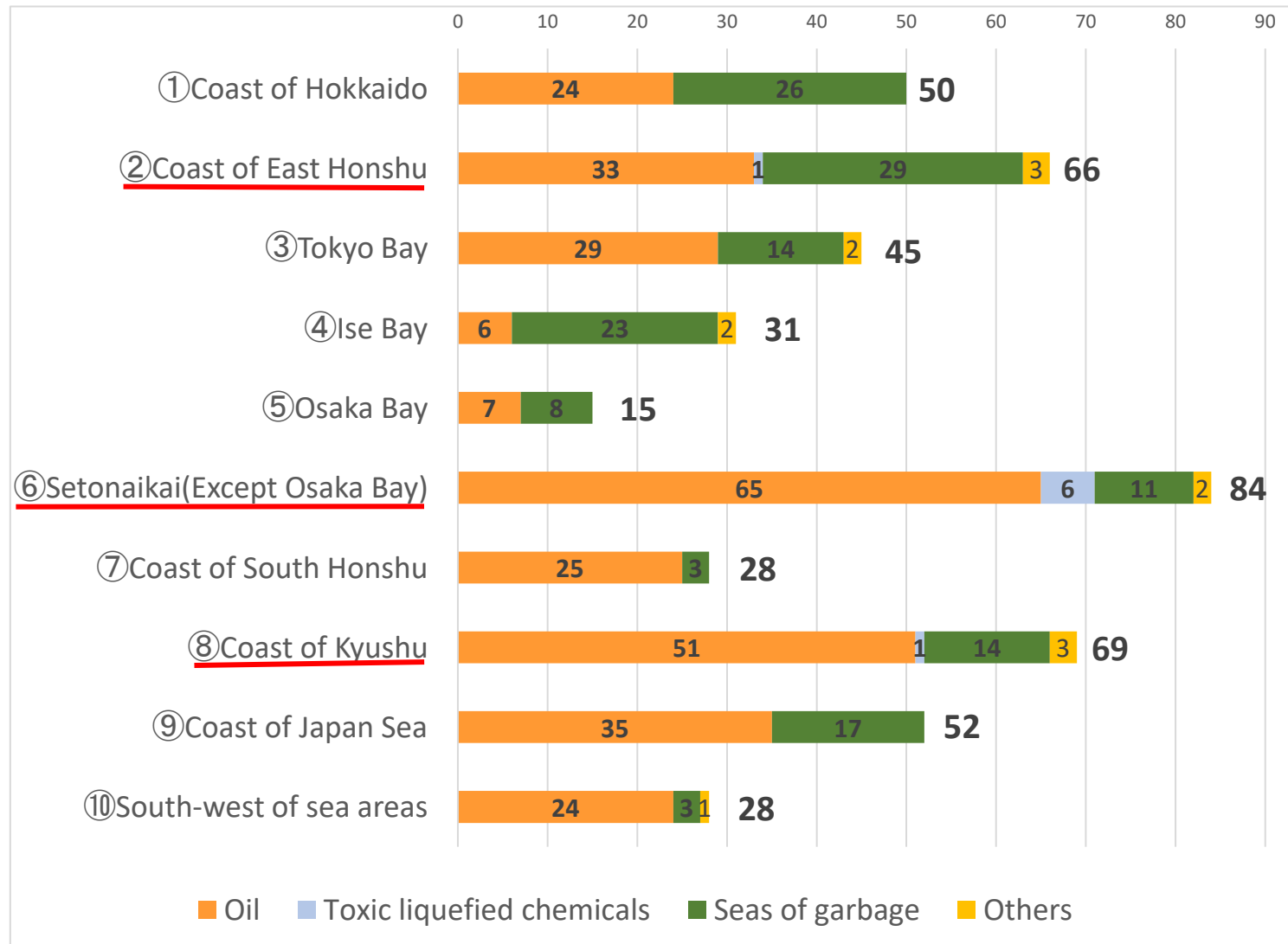
Oil spill caused by human error during bunkering operation



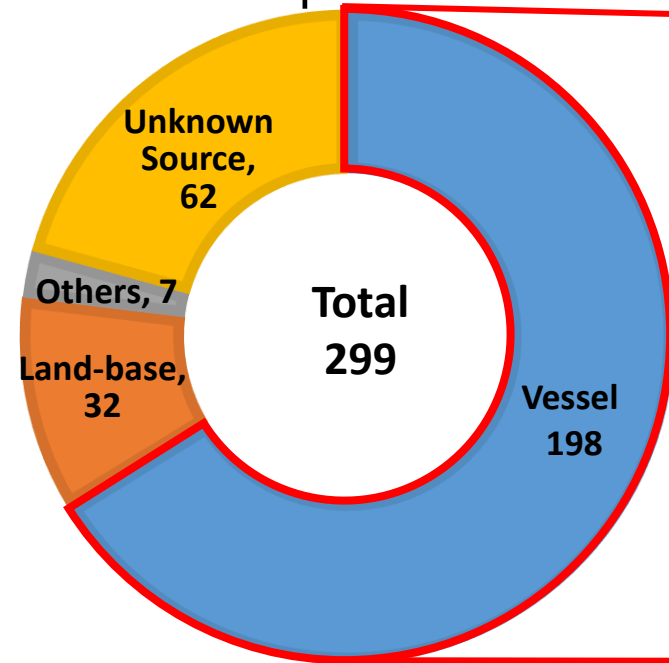
Illegal discharge from ship



The number of pollution in 2022 (individual region)

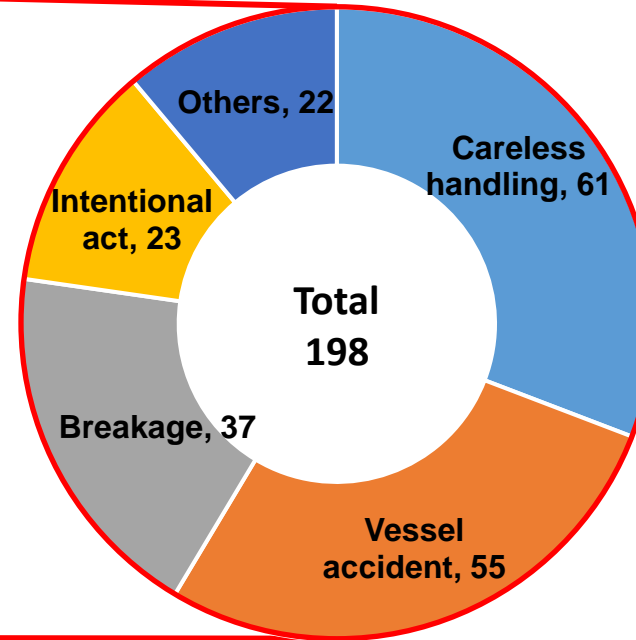


Source of Oil pollution in 2022



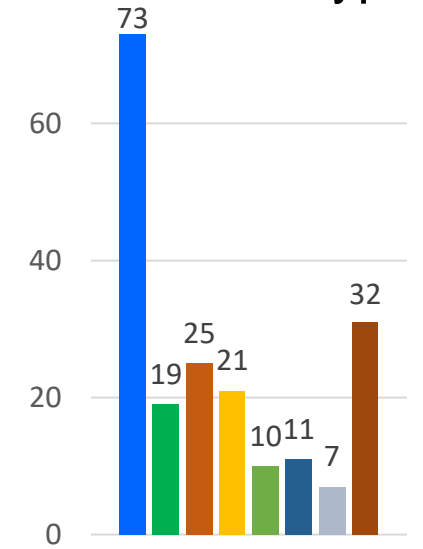
■ Vessel ■ Land-base ■ Others ■ Unknown Source

Cause of discharge from vessel

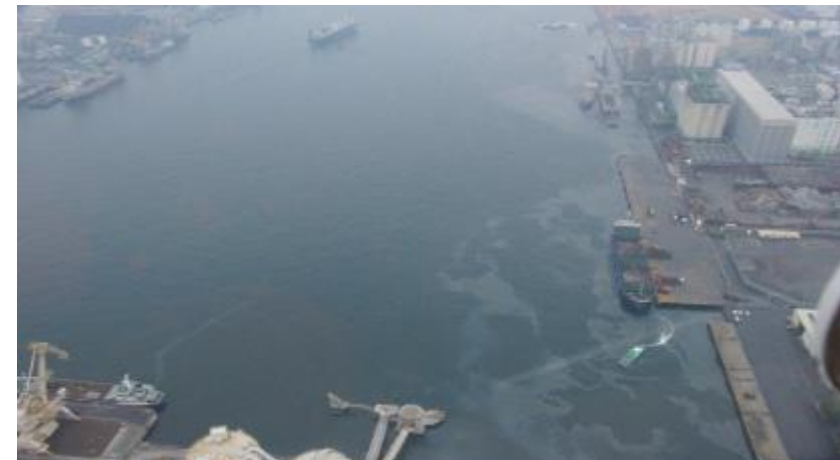


■ Careless handling ■ Vessel accident ■ Breakage ■ Intentional act ■ Others

Vessel type



■ Fishing Boat ■ Tanker
 ■ Cargo Vessel ■ Working Boat
 ■ Governmental Ship ■ Passenger Ship
 ■ Others ■ Pleasure Boat

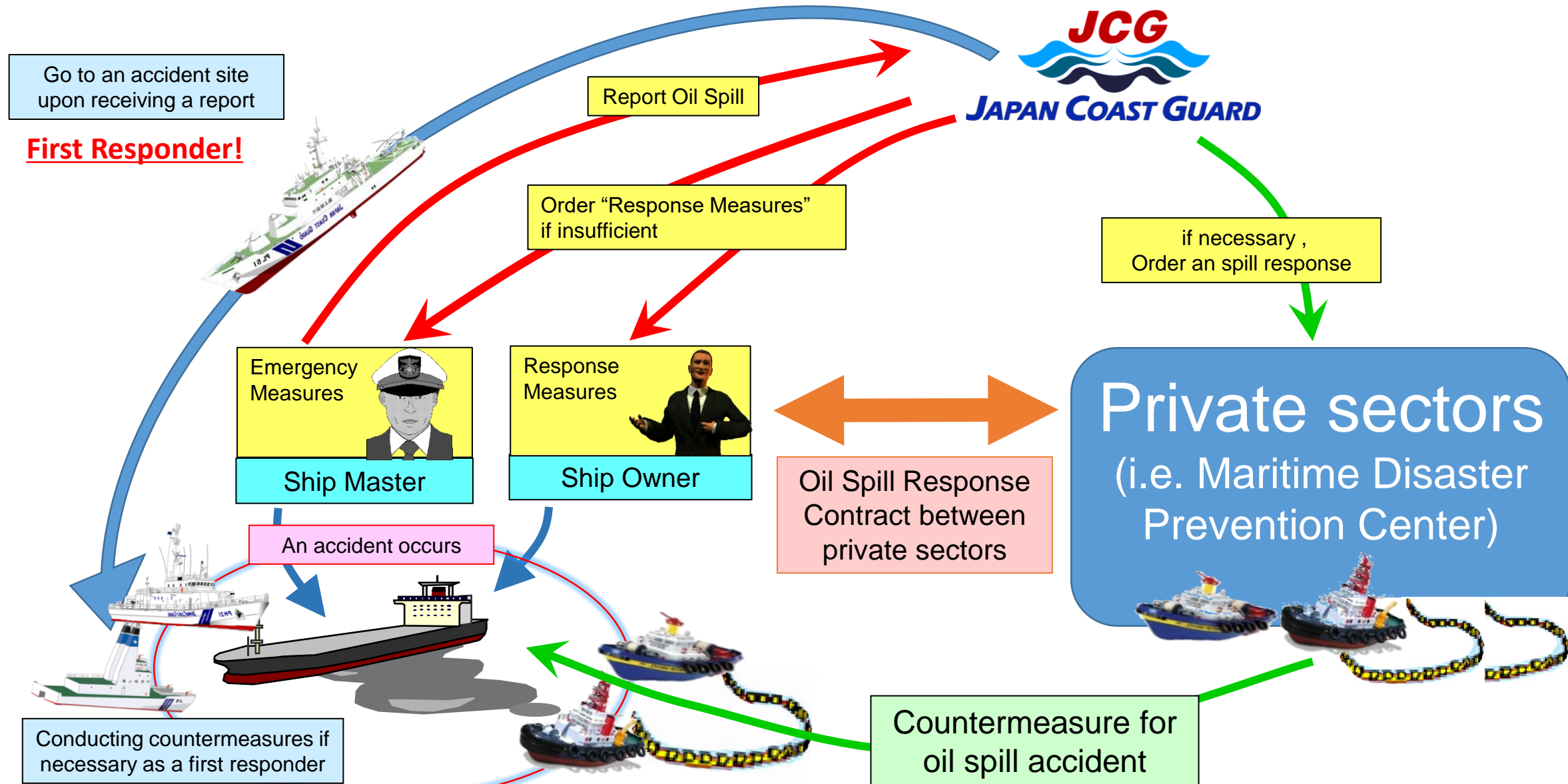


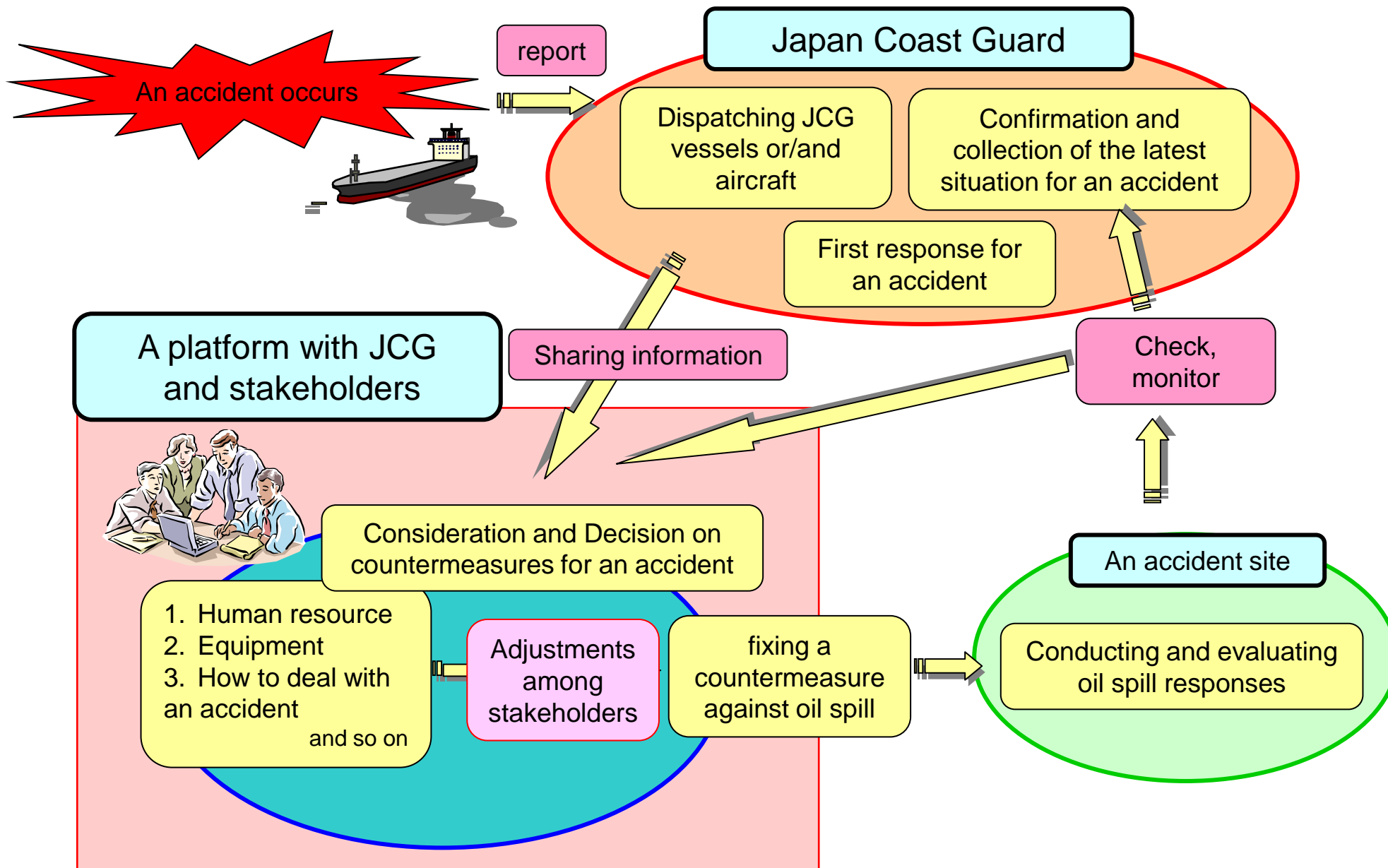
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Regional Contingency Plan

A plan developed by the Commandant of JCG in accordance with the Act on Marine Pollution and Disaster Prevention, which divides the nation into 16 sea areas keeping in mind the propose of the National Contingency Plan for Preparedness and Response for Oil pollution accidents, and specifies necessary matters to spill response and to prevent hazards associated with it in case of large scale discharge of oil or noxious liquid substances.

Planned items

Pollution estimation

Spill response equipment maintenance target

Information sharing among relevant authorities



Member of council for response for spilled oil etc.

- JCG
- Ship owner of tanker and noxious liquid substances carrier
- Businesses handling oil or noxious liquid
- Relevant administrative organs
- Port stakeholder, private disaster prevention company
- Fishery stakeholder etc.

※113 Councils in Japan (As of 18th October 2023)



Giving knowledge on oil spill in classroom style

Task of the council for response for spilled oil etc.

- Develop internal criteria for response of spilled oil etc.
- Search and research for technology for response of spilled oil etc.
- Education and implementation of join training for response of spilled oil etc.
- Discussion of important matters for response of spilled oil etc.



Field training to use oil boom in a port

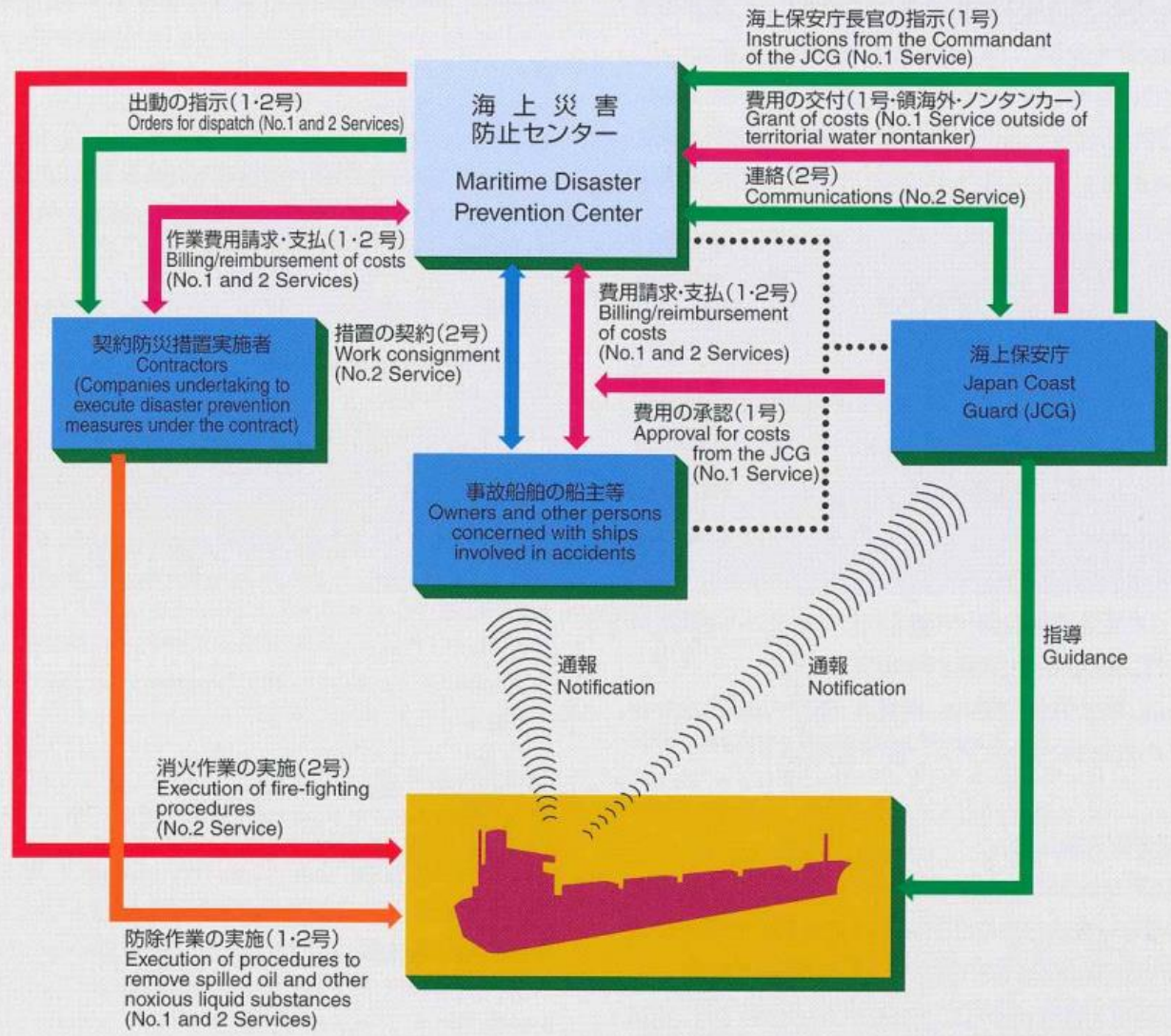
MARITIME DISASTER PREVENTION CENTER

Services, include removal of spilled oil, are classified into the following categories pursuant to the applicable laws

- 1. Operations Under Instruction from the JCG
- 2. Operations Under Consignment from Shipowners

MDPC executes oil-removal and fire-fighting operations upon the occurrence of disasters at sea, such as spillage of oil or other noxious liquid substances and fires on ships. With the aim of swiftly conducting these measures and other related procedures, MDPC has entered into contracts concerning the execution of oil removal with 170 disaster prevention companies all over the country, thereby establishing a national disaster prevention system.

防災措置等の実施に関する業務
Operational Flow Chart of Execution of Disaster Prevention Measures



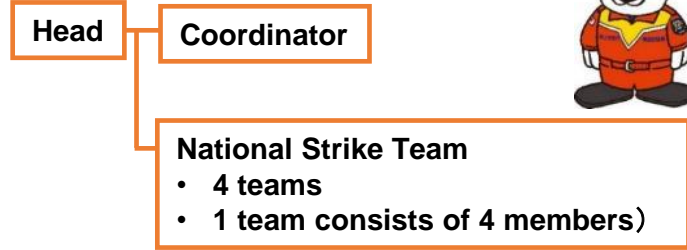
【Outline】

- National Strike Team is the special team that has expertized knowledge and skills for dealing with oil and HNS spill incidents caused by maritime accidents, natural disaster.
- This team was established in 1995.

【Main Duties】

- Advice on oil spill response
- Coping with oil and HNS spill accidents, and fire on ships
- Delivering lectures on oil spill response to JCG officers
- International technical cooperation toward foreign county's Coast Guard officers

【Organization】



【Activity results by NST】



Advices on oil spill response



Gas detection in a ship



Dealing with fire on a ship



Technical cooperation toward foreign county's Coast Guard officers

1 Seminar for marine workers(Online)



2 Visiting vessel and shops etc. for guidance



3 Seminar for ordinary people

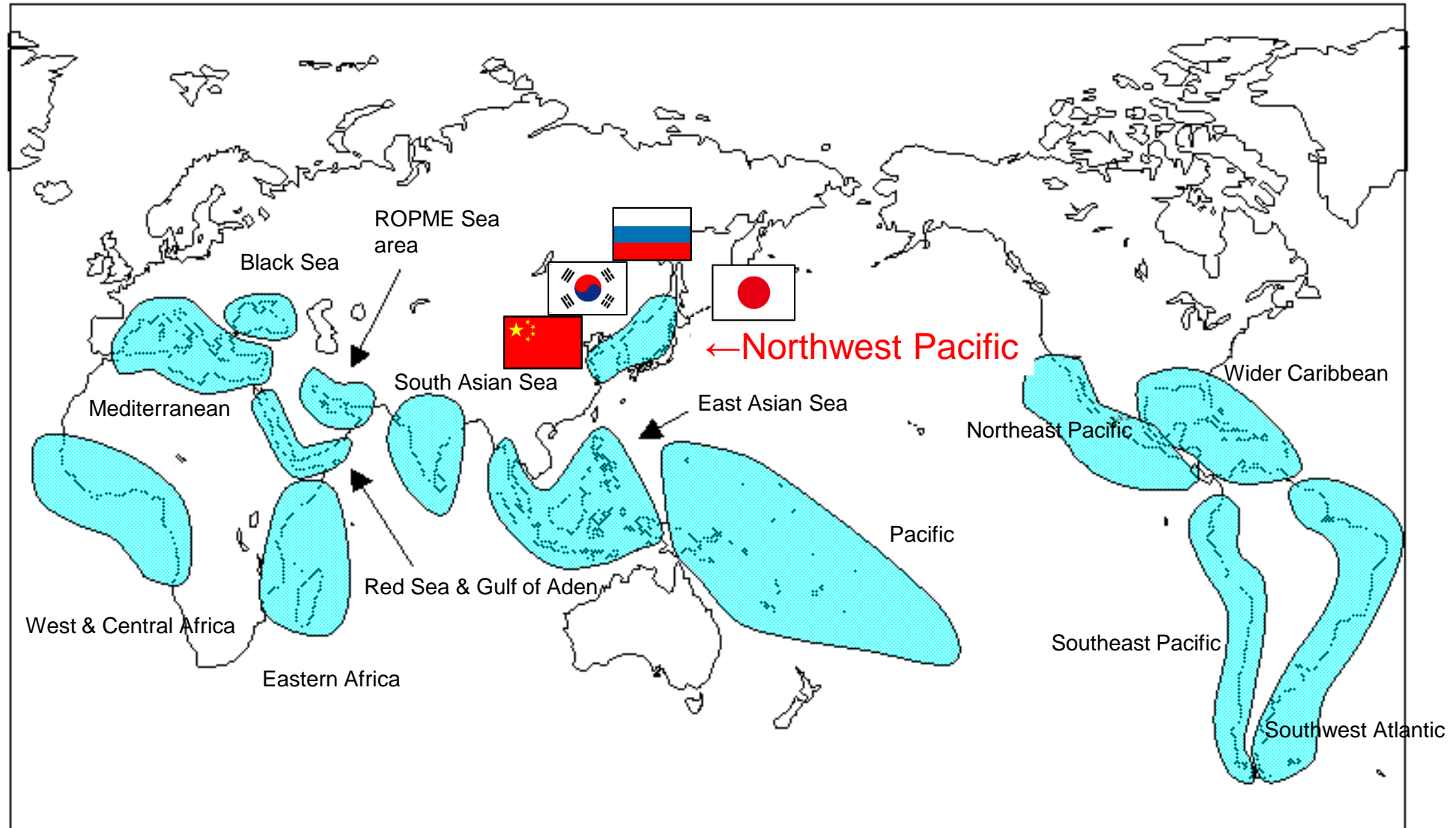


4 Beach cleanup activities with the general public



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Action plan advocated by UNEP (UN Environmental Program)



1. Member states

- China, Japan, Korea, Russia

2. Some Activities in the NOWPAP

- Sharing information on the oil and HNS spill accidents occurred in the NOWPAP region
- If necessary, request for assistance to the member states

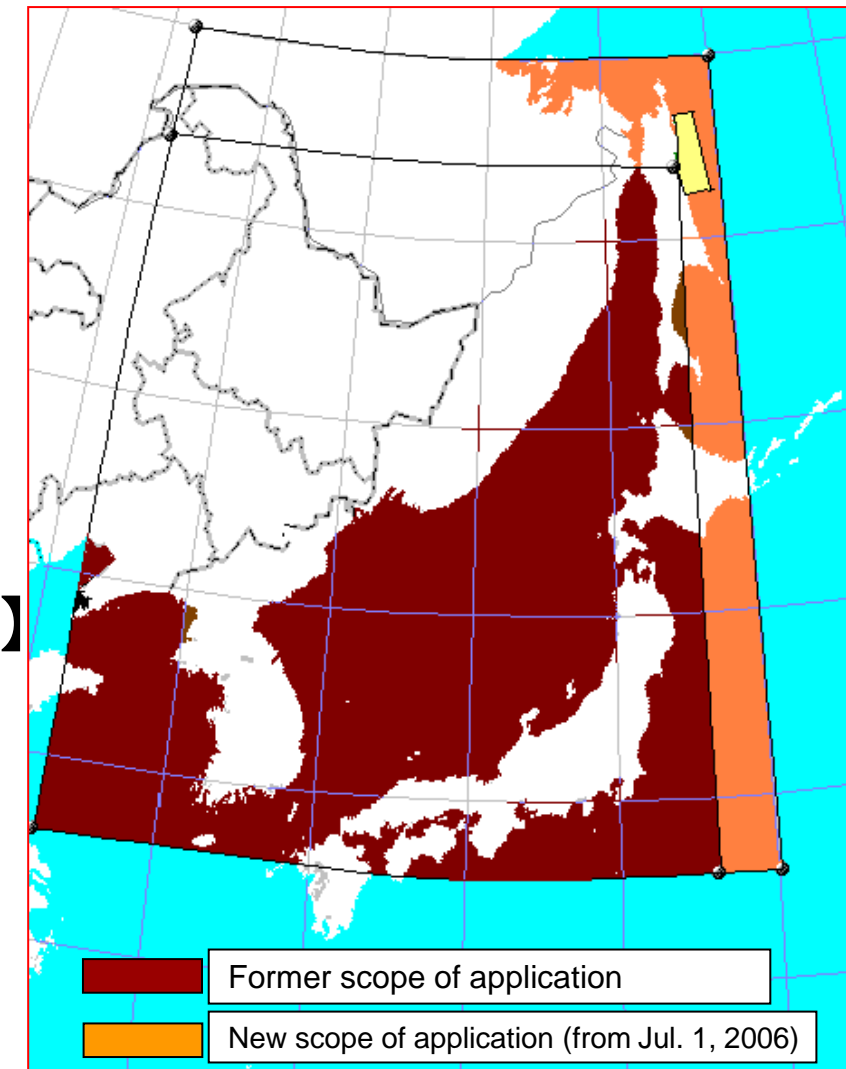
【History of formulation and amendment of contingency plans】

2004 Start of administration

2006 Expanded scope of application to waters surrounding Sakhalin

2008 Added HNS to target substances

In addition to the meeting, joint oil spill response exercise and communication exercise have been also conducted



▲ NOWPAP scope of application

〈Background〉

- The Philippines and Indonesia has conducted the joint oil spill response exercise every two years since 1988 in accordance with “Sulawesi Sea Oil Spill Response Network Plan
- Japan has been invited to MARPOLEX, and JCG has dispatched officers and a large patrol vessel to participated in the exercise

〈Recent exercise〉

MARPOLEX BALI 2017 (May 2017 Indonesia)

MARPOLEX DAVAO 2019 (July 2019 the Philippines)

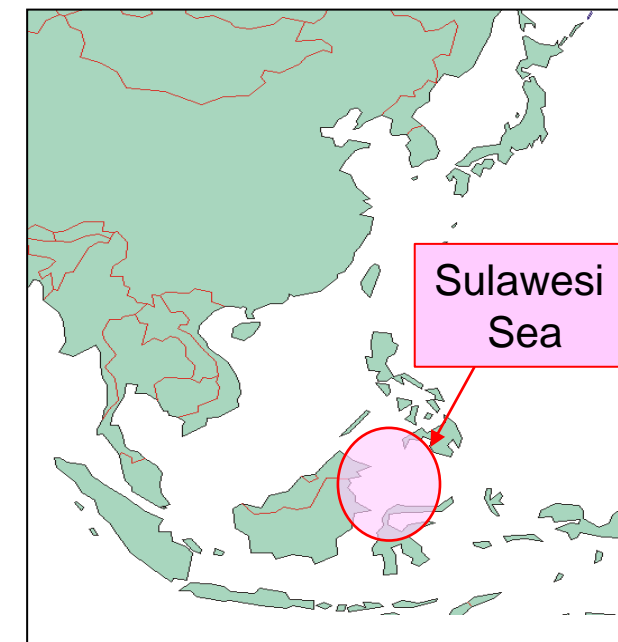
MARPOLEX MAKASSAR 2022 (May 2022 Indonesia)

Exercise Contents & Flow

Tabletop
Exercise

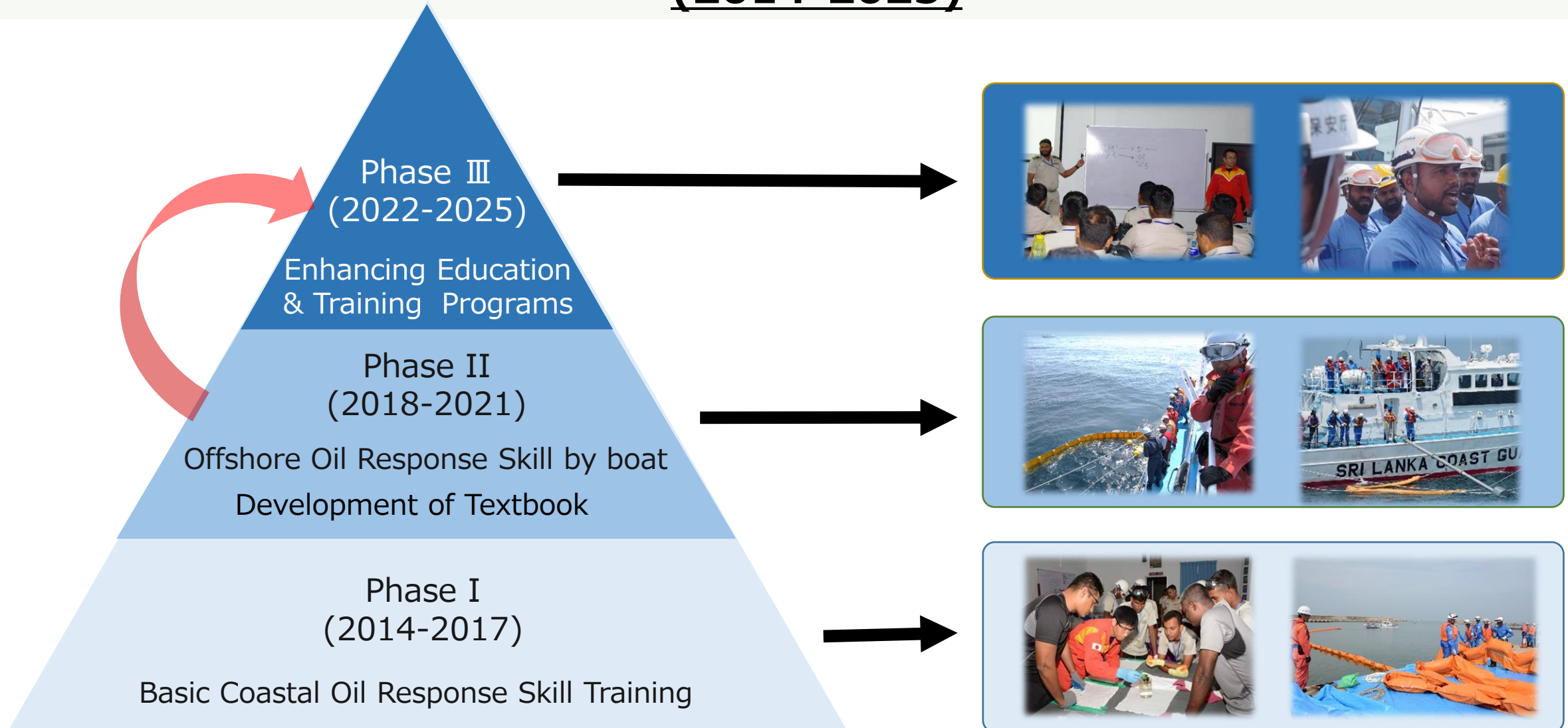
- Search and Rescue
- Firefighting
- Oil spill recovery

Appraisal
Meeting

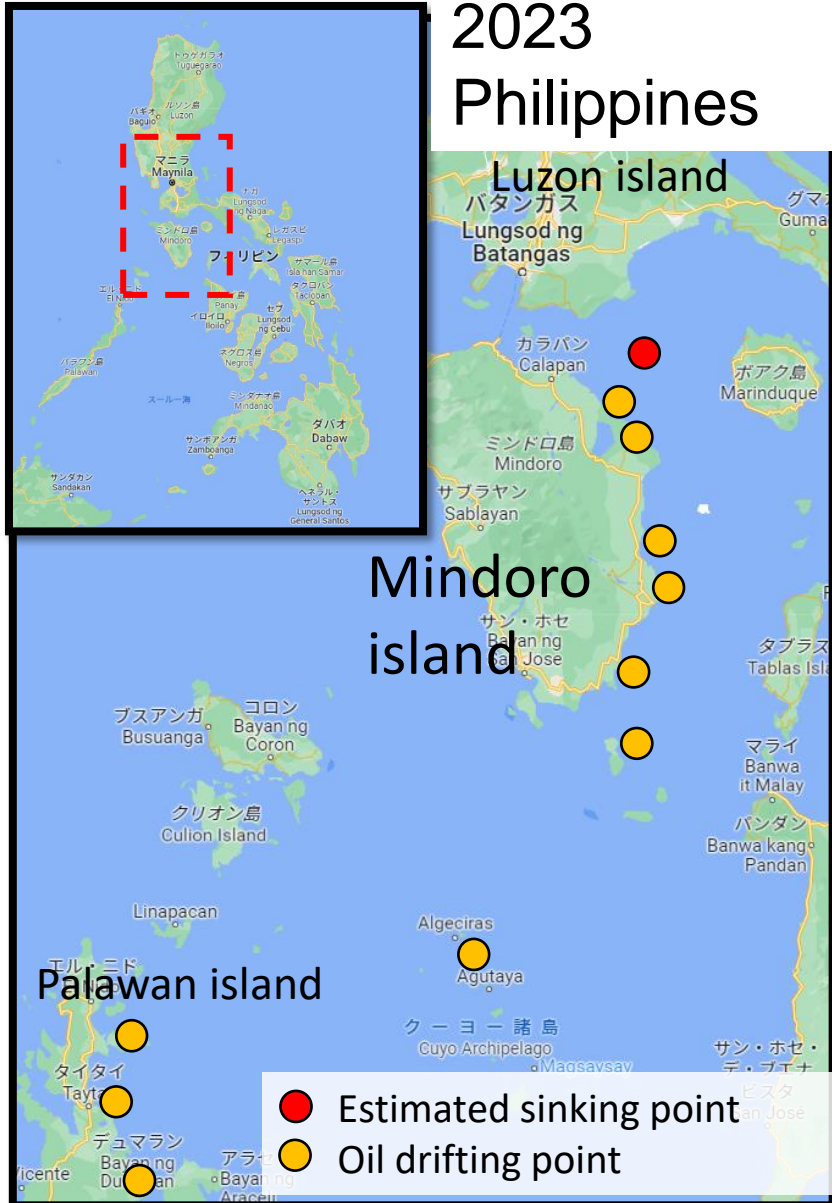




Advisory Services for Improving Oil Spill Response Capabilities for SLCG (2014-2025)



2023 Philippines



Japan Disaster Relief Team Activity (Pollution Response)



1991.3.30~4.19
1991.4.21~5.11
The Persian Gulf (Saudi Arabia)



1997.10.18~11.1
Singapore



2020.8.10~8.23
Mauritius



2007.12.15~12.23
Korea



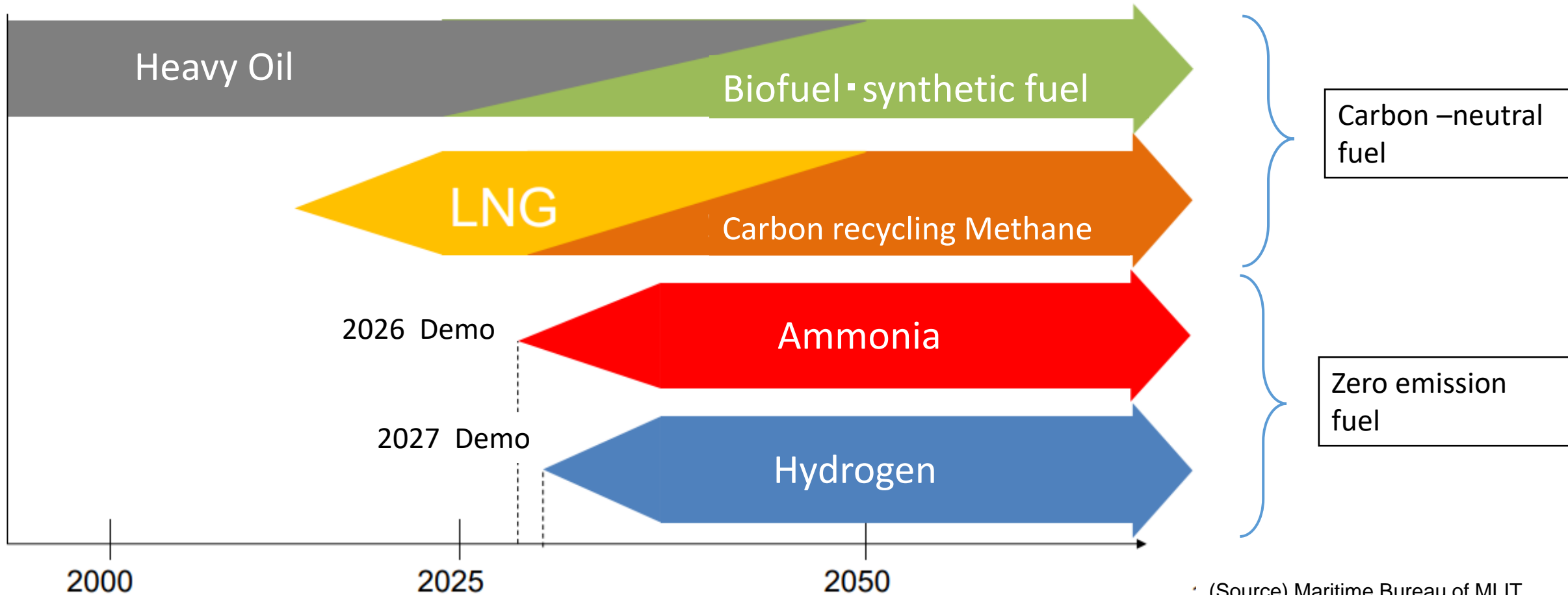
2006.8.22~8.29
The Philippines



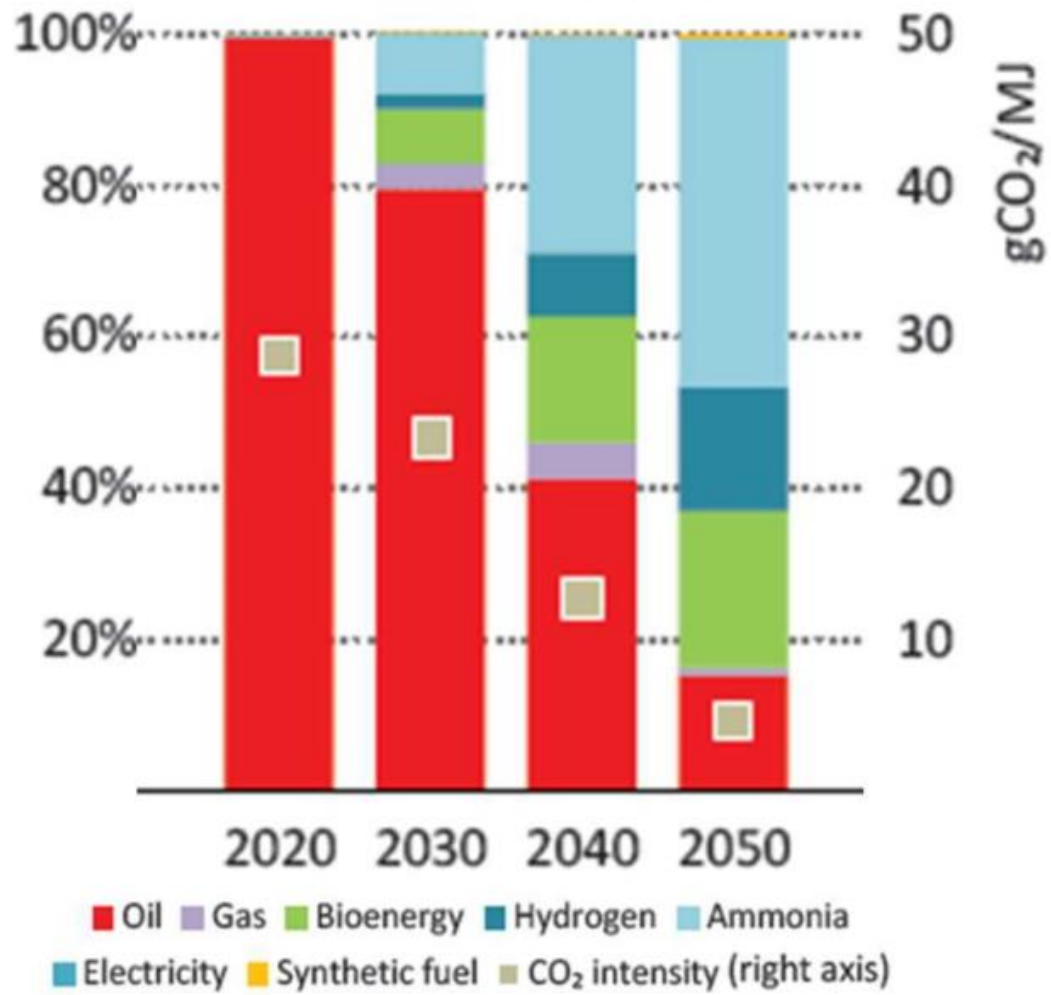
2013.12.4~12.13
The Philippines

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- **Significant transition period of marine fuel** that comparable to changes from coal to heavy oil
- A transition from **heavy oil** to **LNG** and then to **zero-emission fuel** such as **ammonia** and **hydrogen** is expected



IEA projections for future fuel transition in the shipping sector



※Some forecasts predict a large share of methanol

(Source): IEA Net Zero by 2050 A Roadmap for the Global Energy Sector

Vessels in service

LNG fueled vessel (car carrier)



LNG fueled vessel (domestic ferry)



Liquefied hydrogen carrier



Vessels expected to be build

Ammonia fueled ammonia carrier



Ammonia fueled ship (bulk carrier)



Liquefied hydrogen carrier



Looking ahead to in service of next-generation fueled vessel and maritime transport of large quantities hydrogen and ammonia etc.,...

- Review of regulatory system
- Establish of disaster prevention system that can respond to next-generation fuel
- Cooperation with relevant authorities



Dispersion experiment of ammonia

Thank you for your attention!



Coast near Sakai city, Fukui prefecture

