

Japan's Tackling Marine Plastic Litter

**Resource Efficiency and Circular Economy Division
Ministry of Economy, Trade, and Industry (METI)
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Marine Plastic Litter Issue

- Recently, outflow of marine plastic litter to the ocean is getting to a new global issue.
- Marine plastic litter is the global environmental issue in the 21st century, following to climate change.

1. Marine Litter on the coast in Japan



Yamagata Pref.



Nagasaki Pref.

2. Example of Marine plastic litter



Fishing gear



Plastic tank



Plastic container

3. Adverse effects concerned

- To marine environment including ecosystem
- Obstacles to ships
- To tourism and fishery industry
- To residential environment along coasts

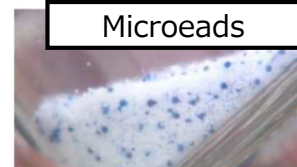
⇒ Recently, it is concerned that microplastics* in the sea affect to marine ecosystem adversely.

* fine plastic of the size of 5mm and under.

Adverse effects
to marine creature



Microplastics



Many plastic bags
from a stomach of a whale



出典: 国土交通省 資源環境部

Fine plastic fragment

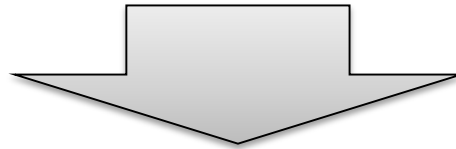


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Japan's Action-Plan against marine plastic litter

Basic Understanding

- ◆ The solution to the marine pollution problem concerning plastic waste relies on both proper collection and waste management methods.
- ◆ Innovative solutions, such as the development of new materials, are vitally important for addressing the plastic waste issue.



METI's task

- ◆ The Ministry of Economy, Trade and Industry will work on measures for the development and introduction of marine biodegradable plastics, etc., in cooperation with industry efforts and public-private partnerships.

METI efforts pertaining to measures against marine plastic litter

Development of a technology roadmap for marine biodegradable plastics

- ◆ Marine biodegradable plastics is one of the most promising, cutting-edge technologies for addressing this issue. Japan is a leader in this field and can contribute much. METI will further enhance and disseminate these technologies by developing a roadmap in order to solve marine plastic litter.

<Major technical issues>

- ◆ Analysis of biodegradation mechanism in seawater
- ◆ Sophistication of the advanced biodegradable functions and development of new resins
- ◆ Manufacturing cost reduction for stable mass production, etc.

<Major supporting measures for R&D and introduction>

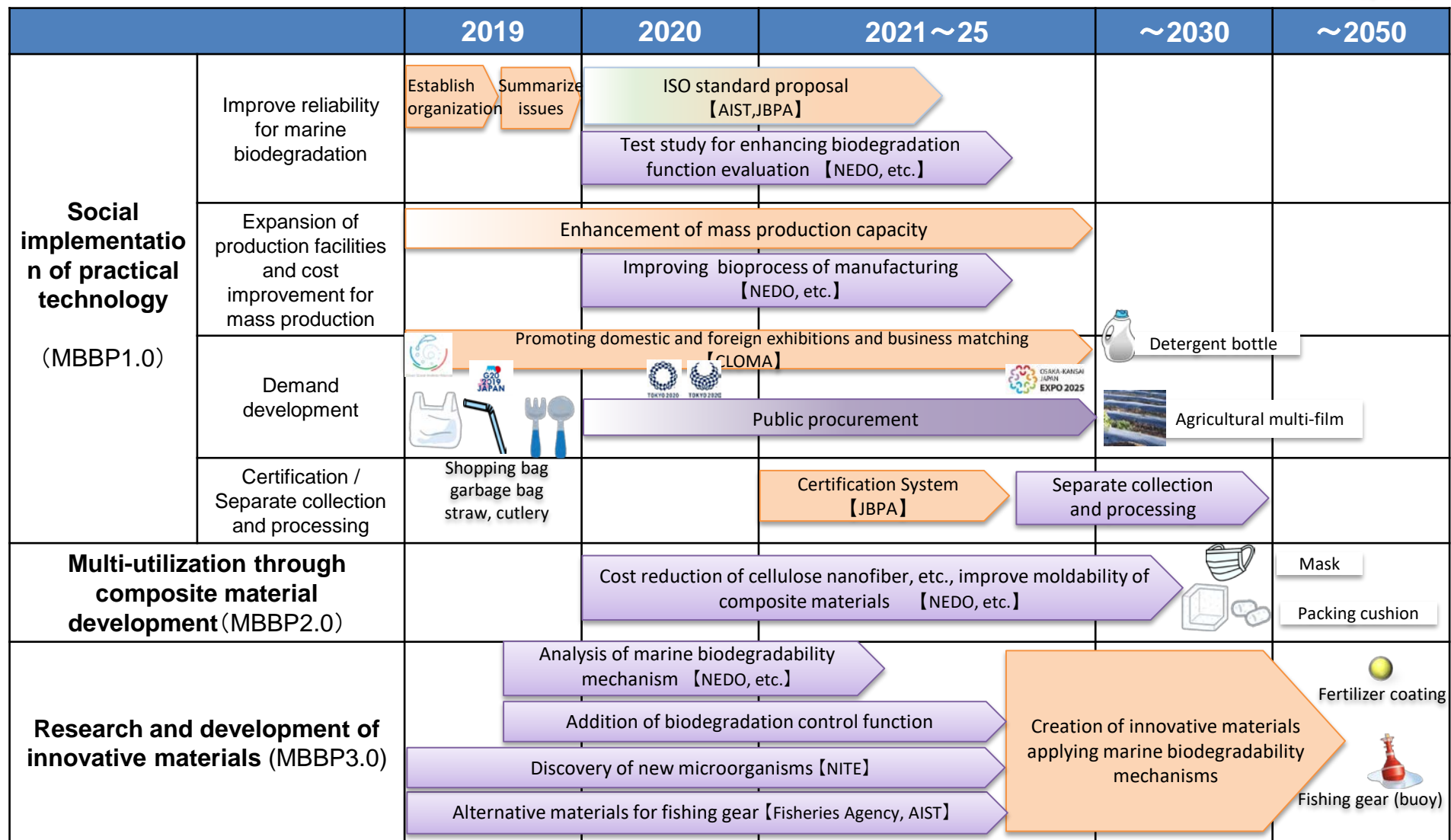
[METI] Support for R&D of marine biodegradable plastics and plastic recycling technology (1.83 billion yen budget for 2020 fiscal year)

[NEDO] New technology research program to help solve medium- and long-term issues in the energy and environmental fields (part of the 3.74 billion yen budget for 2019 fiscal year)

[AIST] International standardization support (ISO standards are being developed in a public-private partnership with respect to biodegradability evaluation of plastic products, etc.)

Outline of Roadmap for Development and Implementation of Marine Biodegradable Plastics

May 2019



MBBP: Marine Bio-degradable Bio-based Plastics, AIST: National Institute of Advanced Industrial Science and Technology, CLOMA: Clean Ocean Material Alliance (Private organization)
NEDO: New Energy and Industrial Technology Development Organization, NITE: National Institute of Technology and Evaluation, JBPA: Japan BioPlastics Association

Major voluntary efforts by industry pertaining to measures against marine plastic litter

○ CLOMA (Clean Ocean Material Alliance)

- ◆ Established in January 2019, by operators involved in the plastic products supply chain, including the chemical and the retail industries.
- ◆ Working on sustainable use and development and introduction of new materials.

○ JaIME (Japan Initiative for Marine Environment)

- ◆ Established September 2018 by major companies and groups in the chemical industry.
- ◆ Working on analysis and dissemination of information concerning problems with marine plastic litter, accumulation of scientific knowledge, and support for emerging Asian countries.

○ AEPW (Alliance to End Plastic Waste)

- ◆ Established in January 2019 as an alliance of global companies, including those from Europe and the United States.
- ◆ In the first five years, \$1.5 billion to be invested to develop measures to control and manage plastic waste and promote post-use solutions.
- * Japanese corporate members include Mitsubishi Chemical, Sumitomo Chemical, and Mitsui Chemicals.

Proper waste management and innovation
make it possible to
“take the blue ocean back”

