

Introduction of CLOMA (Japan Clean Ocean Material Alliance) and Recycle initiatives for PET bottles

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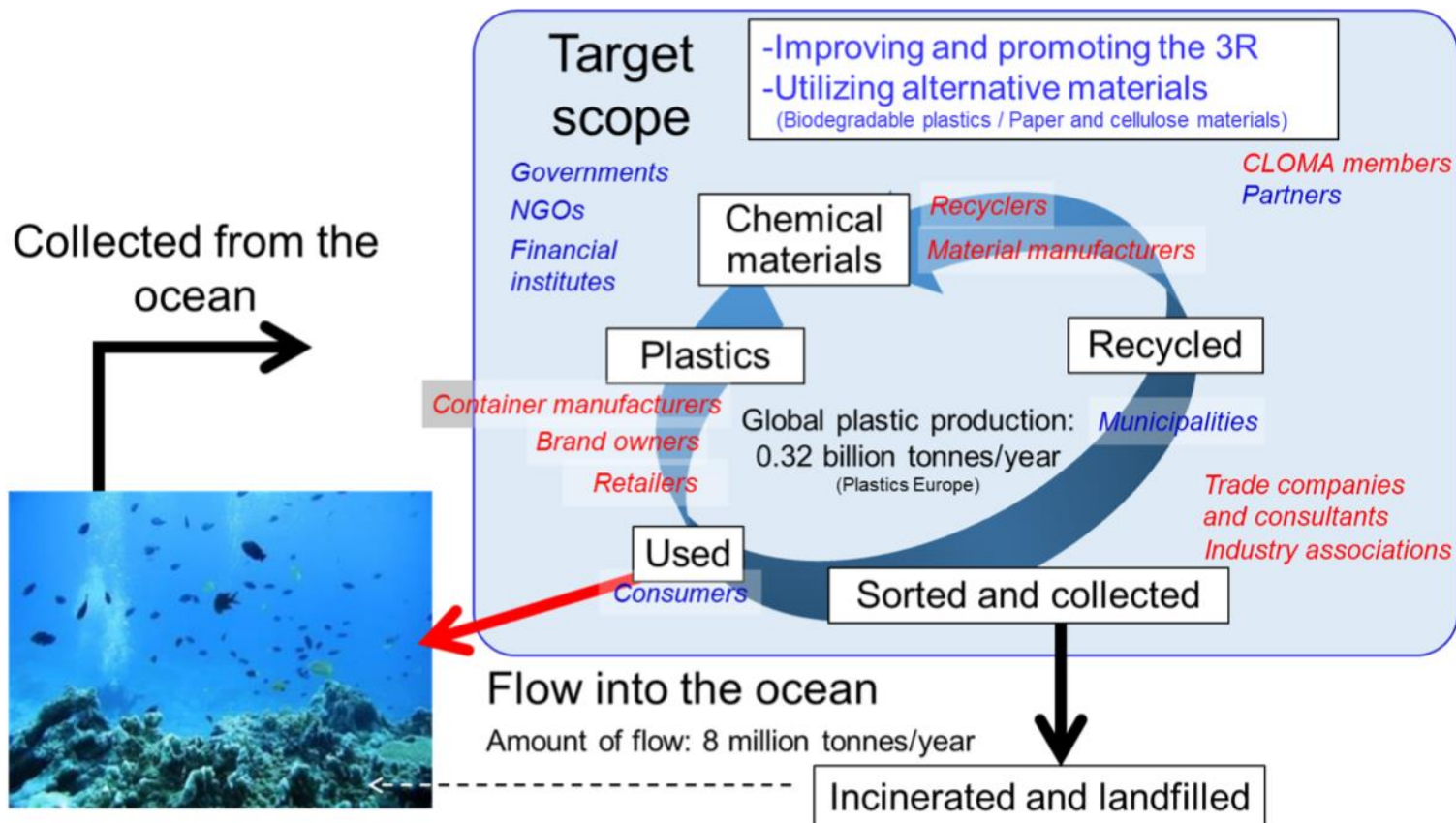
What is CLOMA?



Japan Clean Ocean Material Alliance

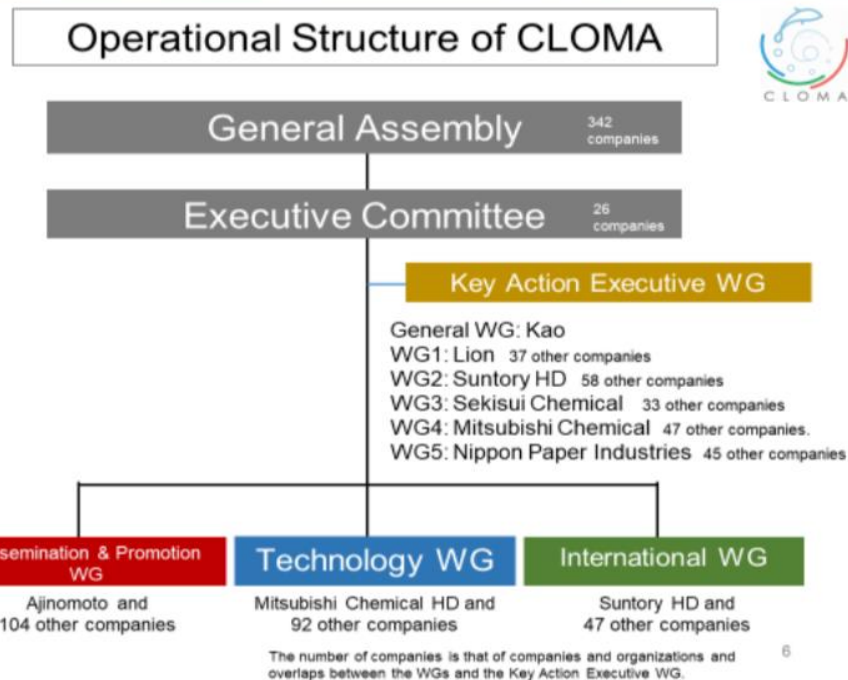
Japan Ocean Material Alliance (CLOMA) was established in January 2019, consisting of companies responsible for consumer product supply chains.

Leveraging the technology and knowhow accumulated by Japan's industrial community, **CLOMA endeavors to accelerate innovation for the 3R (reduce, reuse and recycle) and alternative materials, and to encourage extensive plastic recycling through public-private partnerships.** In this way, **CLOMA will disseminate its "Japan model," a made-in-Japan solution that aims to reduce marine plastic litter to zero in cooperation with consumers and society.**



Accumulated amount: 0.15 billion tonnes
New Plastic Economy (Ellen MacArthur Foundation)

Key Actions



- ❑ **Key Action 1**
Reducing Plastic Consumption
- ❑ **Key Action 2**
Improving the Rate of Material Recycling
- ❑ **Key Action 3**
Developing and Disseminating Chemical Recycling
- ❑ **Key Action 4**
Developing and Disseminating Biodegradable Plastics
- ❑ **Key Action 5**
Developing and Disseminating Paper and Cellulose Materials
- ❑ **Cross-Action Theme**
Sophisticating the sorting and collection system

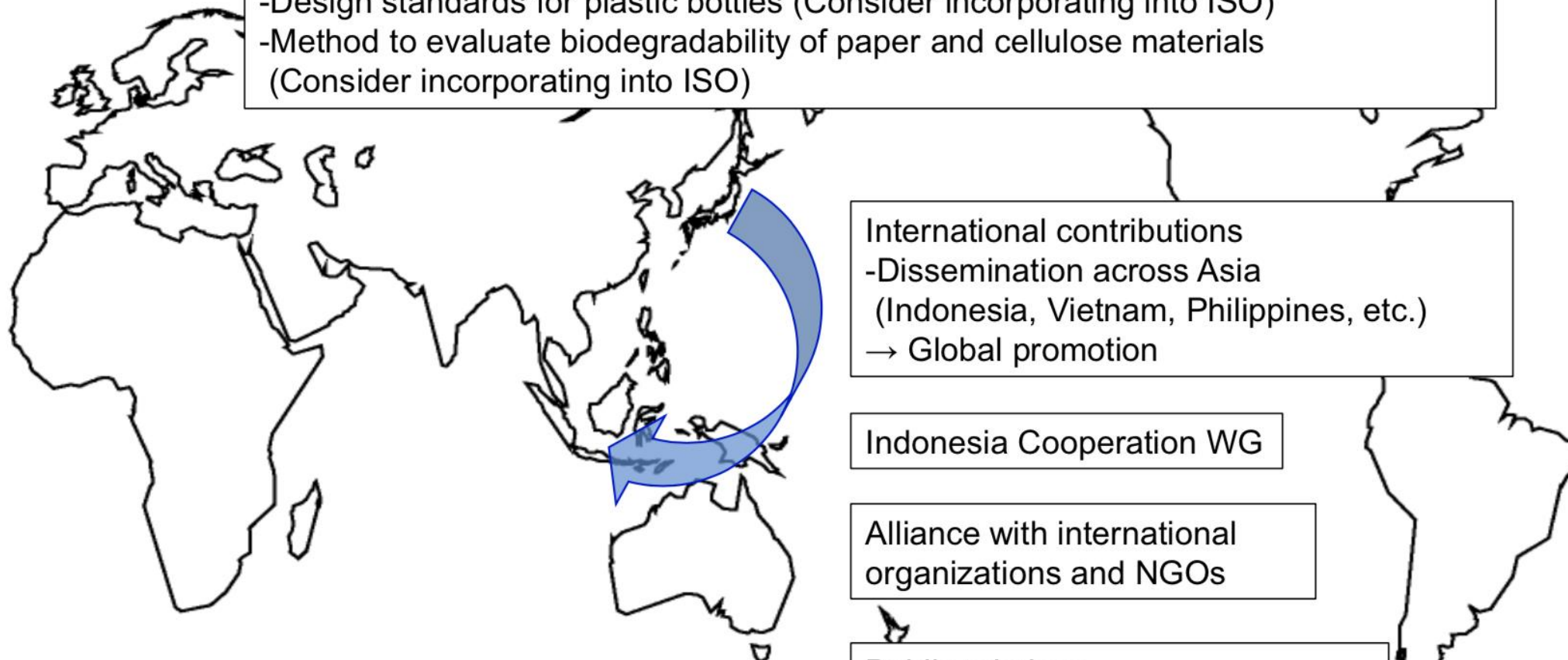
	2030	2050
CLOMA ACTION PLAN	60% recycling of containers/packaging*	100% recycling of plastic products**
Key Action 1: Reducing	25% reduction in virgin plastic waste	Maximum utilization
Key Action 2: Material Recycling	PET: 100% collection, extensive recycling (100% effective utilization***) Other plastics: 60% recycling	
Key Action 3: Chemical Recycling	-----	
Key Action 4: Biodegradable Plastics	Helping to introduce 2 million tonnes of biomass plastics	
Key Action 5: Paper and Cellulose	0.1 million tonnes of alternative materials to replace plastics	
		1 m tonnes of alternative materials to replace plastics

Worldwide Dissemination

- Disseminate the “Japan model” worldwide as a made-in-Japan solution

Standardization of environmentally-compatible design → Global promotion

- New design standards for “Reduce”
- Design standards for plastic bottles (Consider incorporating into ISO)
- Method to evaluate biodegradability of paper and cellulose materials (Consider incorporating into ISO)



International contributions

- Dissemination across Asia (Indonesia, Vietnam, Philippines, etc.)
- Global promotion

Indonesia Cooperation WG

Alliance with international organizations and NGOs

Public relations & awareness building activities

Trend of recycling (collection/resource recovery)

Maintaining the world-leading level recycling

Compared with 20.9% recycling rate in USA and 41.8% in Europe, the recycling rate in Japan remains in the world-leading level.

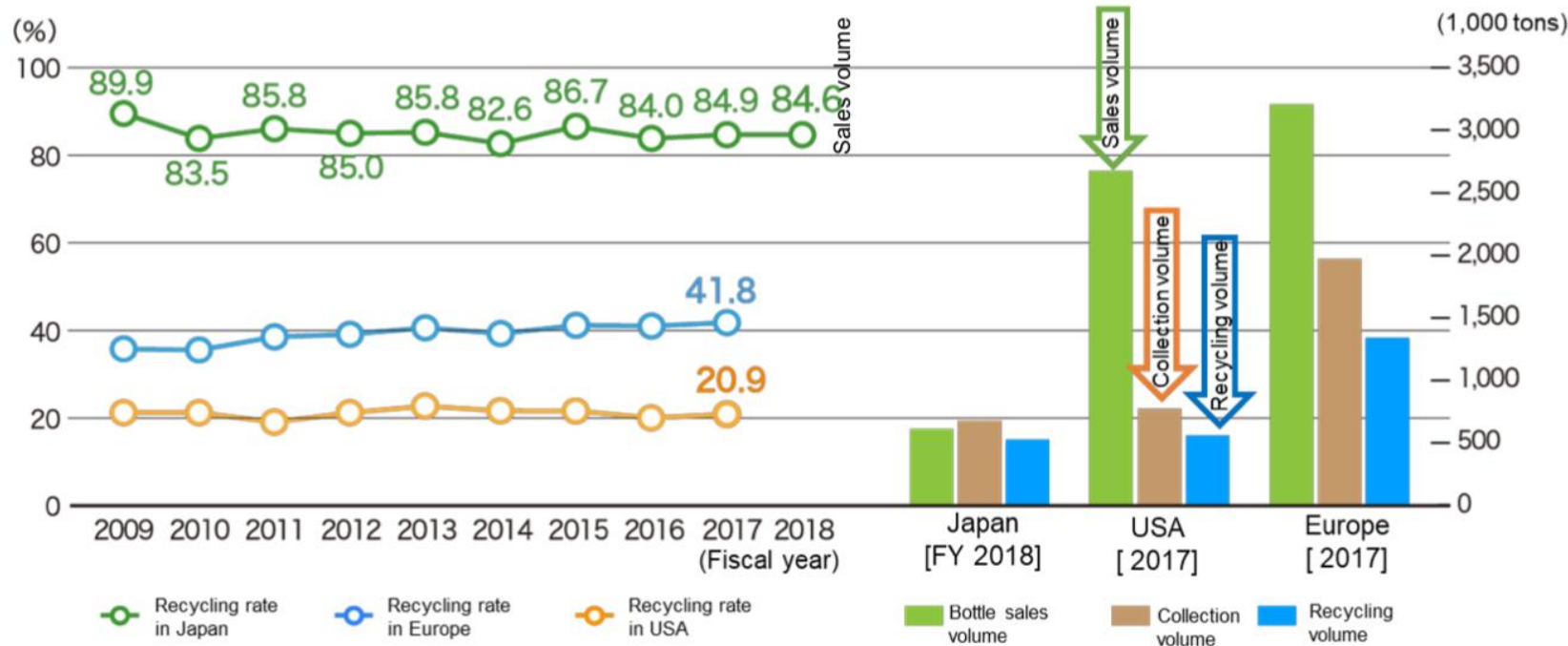


Figure 5. Changes in the recycling rates of PET bottles in Japan, USA and Europe

FY2018	Sales volume (A)	Collection volume (B)	Recycling volume (C)	Recycling rate (C/A)	Volume/person
JAPAN	626	684	529	84.6%	4.9kg/person
USA (2017)	2,682	783	561	20.9%	8.3kg/person
Europe (2017)	3,207	1,972	1,340	41.8%	6.3kg/person

(1) Regulation by law

PET bottle products used for food and to put contents easily washable with water were exclusively designated and became a target of recycling as PET.



Other products became another target even though they are PET.

(2) Voluntary regulation by the industry

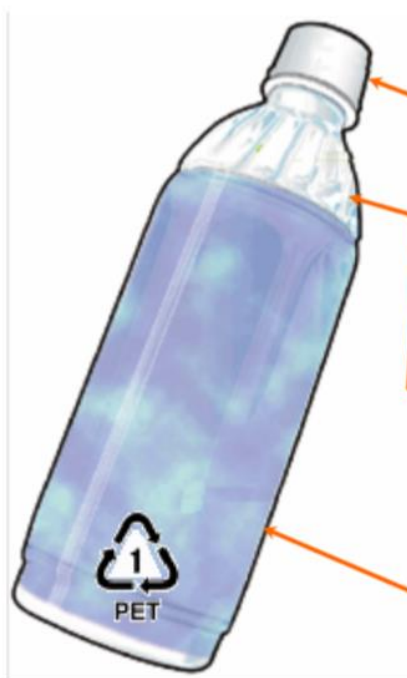
Design guidelines for easily recyclable PET bottles were established.

And have been observed by PET bottles produced in Japan.

Observation of Voluntary Design Guidelines

• Soft drinks (including milk-based drinks), specified seasonings (soy sauce, etc.) and alcohol drinks

- * Act on the Promotion of Effective Utilization of Resources → Specified labeled products [Promotion of sorted collection]
- * From April 2008, review of PET classification: Soy sauce → Specified seasoning
- * From April 2017, review of PET classification: Addition of alcohol fermented seasoning



Closure ⇒ Plastic closure



(PE/PP= Float on water with a specific gravity less than 1)

In 1998, aluminum closures were prohibited.

Bottle body ⇒ PET single substance/colorless and transparent



PET

In 1998, base cups were prohibited in principle.
In 2001, colored bottles were prohibited.

In 2015, GL corresponding to BtoB was added.

Label ⇒ Easily removable by hand



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In 1994, PVC was prohibited (discoloration prevention of recycled materials).

In 1994, entirely glued paper labels were prohibited.

In 1998, aluminum laminate was prohibited.

Suntory Group Overview

SUNTORY

Suntory Group

1899 Founded in Osaka, Japan

Sales by Business Segment

Others

(Health food, ice cream, restaurants, flowers, operations in China and other operations)

¥207.3 billion
(10%)

Beverage and Food

(Non-alcoholic beverages, health drinks, processed food, other products)

¥1,172.9 billion
(56%)



Alcoholic Beverage
(Spirits, beer, wine and other alcoholic beverages)

¥728.1 billion
(34%)

Number of Group Companies / Employees by Region



Suntory Holdings Limited
Corporate Sustainability Division
Corporate Brand Strategy Department
<http://www.suntory.com/>

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SUNTORY

<Suntory Group's PET Bottle Sustainability 2030 Target>

Based on the Suntory Group Plastic Policy, we will aim to switch all PET bottles used globally for Suntory products to be made of recycled or plant-based material by 2030, achieving zero use of virgin petroleum-based materials.

