

Voluntary Action Plan for Establishing a Sound Material-Cycle Society – Results of Fiscal 2018 Follow-up & Industry-Specific Plastic-Related Targets– <Overview>

April 16, 2019
Keidanren (Japan Business Federation)

1. Voluntary Action Plan for Establishing a Sound Material-Cycle Society (FY2016-)

* **43 participating industries**

(1) Reductions in final disposal volume of industrial waste (Fourth Target)

⇒ Japanese Industry as a whole “aims to reduce **by fiscal 2020**, the final disposal volume of appropriately treated industrial waste by **70% from the actual performance level in fiscal 2000** with consideration of the achievement of a low-carbon society”

(2) Industry-specific targets with a view to improve the quality of resource circulation

⇒ **Set up individual targets** based on consideration of industry-specific characteristics and circumstances for **improving the quality of resource circulation**. (e.g. target recycling rate of byproducts generated during a product’s manufacturing stage)

(3) “Industry-specific plastic-related targets” (added in fiscal 2018 [new])

⇒ Based on the Keidanren’s “Opinion on formulating the ‘Resource Circulation Strategy for Plastics’” (Nov. 2018), **set up industry-specific targets contributing to resolving marine plastic litter issues and promote plastic resource circulation**

Background (reference)

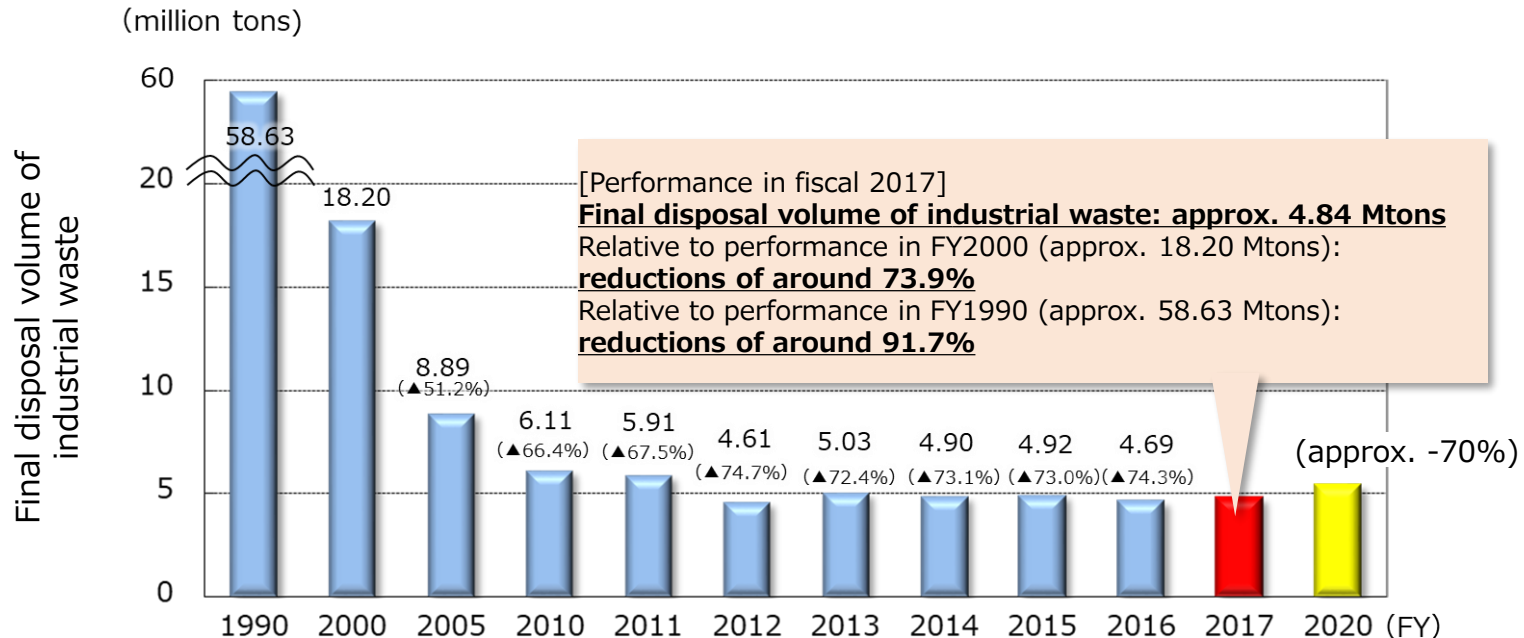
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|---------------|---|
| (1) 1997 | Formulated the Voluntary Action Plan on the Environment (Section on Waste Disposal Measures); annual follow-ups |
| (2) Dec. 1999 | Set up First Target: 75% below FY1990 performance level of final disposal volume of industrial waste in FY2010 |
| (3) Mar. 2007 | Renewed to the Voluntary Action Plan on the Environment (Section on the Establishment of a Sound Material-Cycle Society)
Set up Second Target: 86% below FY1990 performance level of final disposal volume of industrial waste in FY2010
Set up industry-specific targets (using indicators other than final disposal volume) |
| (4) Dec. 2010 | Third Target: 65% below FY2000 performance level of final disposal volume of industrial waste in FY2015
Set up industry-specific targets (using indicators other than final disposal volume) |
| (5) Mar. 2016 | Renewed to Voluntary Action Plan for Establishing a Sound Material-Cycle Society, Set up abovementioned targets |
| (6) Apr. 2019 | Set up “Industry-specific plastic targets” |

***Efforts under the current Voluntary Action Plan are showcased as important measures in Japanese Government’s “Fundamental Plan for Establishing a Sound Material-Cycle Society”.**

2. Performance in fiscal 2017: (1) reductions in final disposal volume of industrial waste (Fourth Target)

- ◇ **Final disposal volume of industrial waste in fiscal 2017** (total for 32 industries): **approximately 4.84 million tons**
- ◇ Supported by the strong sense of responsibility of Japanese companies, **approx. 73.9% below performance in fiscal 2000 (baseline year), achieving the target level of this Plan (reduction of around 70%)**
- ◇ Increase of approx. 0.15 million tons (approx. 3.1%) over performance in fiscal 2016. This is inferred mainly to be a result of increased construction demand trends continuing since fiscal 2013 against the backdrop of a continuing gradual economic recovery trend, post-earthquake reconstruction demand, and demand related to the Tokyo Olympic and Paralympic Games.

<Final disposal volume of industrial waste by the participating industries>



2. Performance in fiscal 2017: (2) industry-specific targets & efforts

◇41 industries set up and engaged in efforts toward individual targets in line with industrial characteristics and circumstances

{Examples of industry-specific targets}

- Achieve recycling rate of around 95% in FY2020
- Maintain volume of industrial waste generated at levels not exceeding 1,000 ton
- Reduce disposal volume of municipal solid waste from business activities by 80% from FY2000 level
- Reduce volume of paper containers and packaging used per unit sales by 45% relative to year 2000 levels
- Achieve a procurement rate of at least 75% for recycled paper and environment-friendly paper
- Achieve a steel can recycling rate of at least 90%
- Maintain zero emission (final disposal rate of 1%)
- Maintain a recycle rate of 100%

◇In addition to target-based efforts, industries were engaged in efforts towards establishing a sound material-cycle society

{Examples of efforts}

<Promoting the 3Rs and effective utilization of resources>

- Maintain and improve heat efficiency of thermal power
- Reduce defective products by reviewing manufacturing processes
- Reduce manufacturing process loss by consolidating manufacturing bases
- Develop thin-wall product packaging
- Receive waste from other industries
- Thermal & energy recovery

<Efforts to reduce environmental burden through product life cycles>

- Establish collection and recycling routes of waste equipment from clients
- Formulate guidelines for designing easy-to-recycle products
- Label products to indicate what materials they contain to facilitate waste segregation.
- Perform environmental assessment of equipment when deploying new equipment

<Technology development and commercialization>

- Research on technologies to collect resources from products
- R&D to develop high-strength thin-wall material technologies
- Implement demonstrative tests to turn food waste into biogas
- Develop process management systems using location information and images

<International resource circulation / overseas business activities>

- Overseas recycling business
- Provide waste processing equipment, including incinerators involving low environmental burden

<Other>

- Cooperate with local governments in treating waste from natural disasters
- Measures to address issues concerning municipal solid waste from business activities; etc.

3. [New targets] Industry-specific plastic-related targets (1)

- ◇Based on the Keidanren Opinion, Keidanren compiled a collection of case studies “Contributing to the UN SDGs through Measures Addressing Plastic Waste Issues” and encouraged Industrial associations to set up targets that would contribute to resolving marine plastic litter issues and promote plastic resource circulation (industry-specific plastic-related targets) from the perspective of deepening voluntary approaches by the business community and expanding the horizons of such efforts
- ◇20 industries have announced 43 “industry-specific plastic-related targets.”
In fiscal 2019, industries will continue to consider ways to enhance their targets.
- ◇Keidanren will promote and widely communicate these voluntary approaches both in Japan and overseas.

Industry (Organization name)	Target	Target FY	Baseline FY
Electric power (The Federation of Electric Power Companies of Japan)	Promote recycling of materials, including plastic waste	–	–
	Promote beautification and cleanup activities	–	–
Gas (The Japan Gas Association)	Aim for 100% effective utilization of used polyethylene gas pipes, including heat recovery.	FY2030	–
Iron and Steel (The Japan Iron and Steel Federation)	Aim for reductions by 2 Mt-CO2 by expanding feedstock recycling of plastic waste at steel plants (utilization of 1 million tons), assuming that a collection system will be established under Government leadership. (Note: Used tires are included in the 1 million tons utilized.)	FY2030	FY2005
Cement (Japan Cement Association)	Increase receipt and treatment of plastic waste.	–	–
Chemical (Japan Chemical Industry Association)	[JPIF] Make efforts to prevent resin pellet spill. Measures to be taken by all relevant JPIF member companies.	FY2019	FY1992
	[JPIF] Declarations towards resolving marine plastic litter issues. Measures to be declared by all JPIF member companies.	FY2019	FY2017
	[JCIA LRI] Evaluate exposure or risk of environmental organisms to chemical substances absorbed by microplastics	–	–
	[JCIA LRI] Clarify the mechanism of microplastics generation	–	–
	[Japan Initiative for Marine Environment (JaIME)] Organize training seminars for dissemination in Asia	–	–
	[Japan Initiative for Marine Environment (JaIME)] Verify the effectiveness of energy recovery	–	–
Pulp and Paper (Japan Paper Association)	Develop and supply biodegradable materials from paper pulp	–	–
	Accelerate the replacement of plastics by improving the functionality of existing paper products.	–	–

3. [New targets] Industry-specific plastic-related targets (2)

Industry (Organization name)	Target	Target FY	Baseline FY
Automobiles (Japan Automobile Manufacturers Association)	Recycling rate of all industrial waste generated at factories: maintain 99+%	FY2020	—
	Recycling rate of automobile shredder residue: maintain 90+%	FY2030	FY2005
Auto-body (Japan Auto-Body Industries Association)	Reduce final disposal volume of industrial waste by 89% relative to the fiscal 2000 level.	FY2020	FY2000
Milk and dairy products (Japan Dairy Industry Association)	Design products to minimize the use of plastic in containers and packaging	—	—
	Promote the use of environment-friendly materials as raw material for plastics used in containers and packaging	—	—
	Facilitate the recycling of waste plastics generated from manufacturing processes by using recycling operators.	—	—
Soft drinks (Japan Soft Drink Association)	Soft Drink Industry's Declaration on Plastic resource circulation	—	—
	PET bottle reduction rate of no less than 25%	FY2030	FY2004
	PET bottle recycling rate of no less than 85%	FY2030	—
	PET effective utilization rate of 100%	FY2030	—
	Enhance awareness-raising campaigns against littering of containers	—	—
	Establish an effective collection system to achieve a collection rate of 100%	—	—
Beer (Brewers Association of Japan)	Effective utilization of 100% of all used plastics generated during production (final disposal volume of 0 tons), as a part of efforts to achieve a recycling rate of 100% for all byproducts and waste generated during the production of beers, etc. at all beer factories of the five member beer companies of the Brewers Association of Japan	FY2030	—
Construction (Japan Federation of Construction Contractors)	Further promote onsite waste segregation to facilitate plastic recycling	—	—
Printing (Japan Federation of Printing Industries)	Further promote waste reduction single-use containers and packaging in the near-term through collaboration with upstream and downstream industries of the supply chain.	—	—
	Aim to design plastic containers and packaging that are technically easy to segregate and reusable or recyclable, while also ensuring functionality.	—	—

3. [New targets] Industry-specific plastic-related targets (3)

Industry (Organization name)	Target	Target FY	Baseline FY
Real estate (The Real Estate Companies Association of Japan)	Maintain a recycling rate of 100% for waste plastics generated at buildings used for the industry's own business operations through fiscal 2030.	FY2030	FY2019
	Improve the green procurement rate of products purchased in buildings used for the industry's business operations	–	–
Trade (Japan Foreign Trade Council)	Aim for 100% segregated disposal of PET bottles at the office	FY2020	–
	Make industry-wide efforts to promote measures and projects that contribute to the reduction, reuse and recycling of plastics	–	–
	Organize a forum for member companies to exchange information on corporate efforts addressing plastic-related issues and make an effort to expand measures	–	–
Department stores (Japan Department Stores Association)	Reduce the volume of plastic containers and packaging used by 50% in terms of intensity (volume of use per unit sales) in 2030 relative to the 2000 baseline level.	FY2030	FY2000
Railway (East Japan Railway Company)	Promote recycling by installing segregated garbage bins at stations and separately collect PET bottles with the cooperation of customers	–	–
Banks (Japan Bankers Association)	Engage in segregated collection of used PET bottles at 100% of member banks	FY2030	–
	Engage in clean-ups and other measures to reduce marine plastic litter at 100% of member banks	FY2030	–
	The bank industry will engage in the effective use of resources and waste reduction	–	–
	The bank industry will actively support companies that take measures to address plastic-related issues in line with government policy	–	–
Securities (Japanese Securities Dealers Association)	Promote the use of paper manufactured in ways that reduce environmental burden, while making efforts to reduce environmental burden and reuse resources by ensuring the segregated collection of waste, etc. with a view to plastic resource circulation and measures to prevent the plastic outflow into the ocean	–	–
<Reference> Plastic Containers and Packaging (Plastic Packaging Recycling Council)	Reduction rate of plastic containers and packaging: 16% (cumulative)	FY2020	FY2004
	Recycling rate of plastic containers and packaging: 46%	FY2020	FY2004

<Reference> Voluntary Action Plan for Promoting the 3Rs in Containers and Packaging

- ◇ The Liaison Committee of Associations Promoting 3R, comprising 8 containers and packaging recycling organizations, formulated the “Voluntary Action Plan for Promoting the 3Rs in Containers and Packaging in March 2006, given the Keidanren Proposal “Toward the Establishment of an Effective Recycling System for Containers and Packaging” (October 2005)
- ◇ Individual targets have been set up for each material type of container or packaging and conducts annual follow-up surveys, renewing target levels, as required.

<Recycling rate targets and performance>

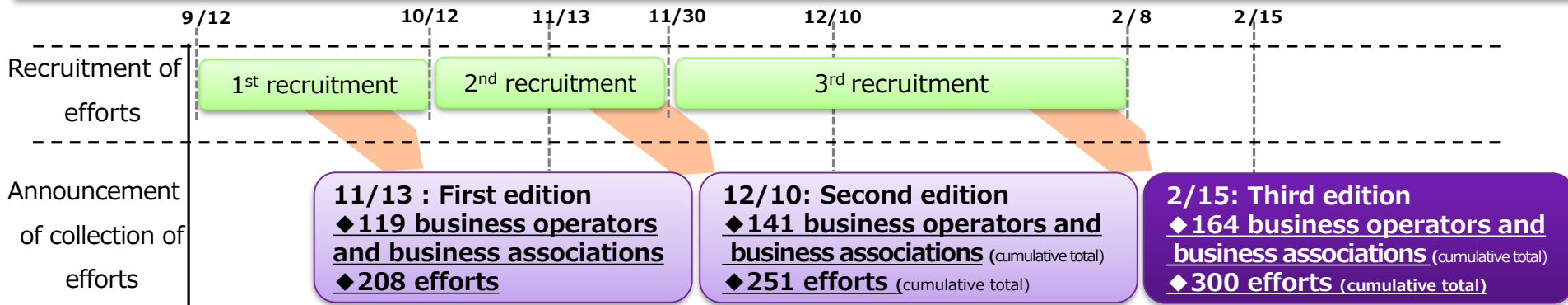
Material	Indicator	FY2020 target	FY2017 performance
Glass bottles	Recycling rate	No less than 70%	69.2%
PET bottles		No less than 85%	84.8%
Steel cans		No less than 90%	93.4%
Aluminum cans		No less than 90%	92.5%
Plastic containers and packaging	Recycling rate	No less than 46%	46.3%
Paper containers and packaging	Collection rate	No less than 28%	24.5%
Paper containers for beverages		No less than 50%	43.4%
Cardboard boxes		No less than 95%	96.1%

<Reduction rate targets and performance>

Material	Indicator	FY2020 target (relative to FY2004)	FY2017 performance
Glass bottles	Average weight per bottle (can)	1.5% lighter	2.2%
PET bottles		25% lighter	23.9%
Steel cans		8% lighter	7.8%
Aluminum cans		5.5% lighter	5.3%
Plastic containers and packaging	500ml milk carton	3% lighter	2.9%
Paper containers and packaging	Average weight per m ²	6.5% lighter	5.1%
Paper containers for beverages	Reduction rate	14%	11.2%
Cardboard boxes		16%	15.9%

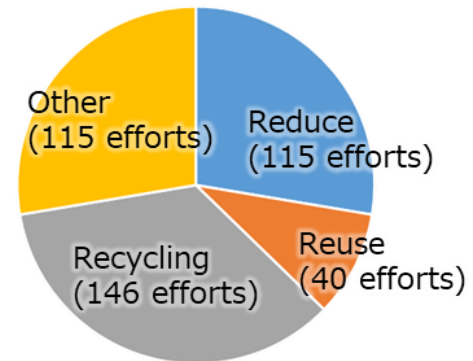
Outline of “Contributing to the UN SDGs through Measures Addressing Plastic Waste Issues”

- ◆ Conducted a questionnaire survey targeting member companies and organizations on efforts serving plastic resource circulation and ocean plastic issues (Sep. 12 – Oct. 12, 2018)
⇒ **Appeal the Japanese business community’s efforts both domestically and internationally, Promote voluntary approaches**
- ◆ Across three recruitment periods, 300 efforts were reported by 164 business operators and business associations.



◆ Collection of efforts made by companies and organizations of 29 industries*. A wide range of industries are taking measures. *Based on the 33 industries of the Tokyo Stock Exchange. Categories for organizations and non-listed companies were allocated by the Keidanren Secretariat based on considerations of business operations

◆ In addition to reduction, reuse and recycling, efforts covered a wide range of activities, including coastal cleanups, environmental education, R&D&D of alternative to plastics.



Take advantage of the B20 and G20 Summits in 2019 to widely showcase the Japanese business community’s efforts domestically and internationally. (An English summary was distributed at the B20 meeting.)

4. Near future challenges

Current situation

- ◇ Japan has been very successful in its efforts to achieve a Sound Material-Cycle Society, supported by the cooperation of national government, local governments, operators, consumers and non-profit organizations etc..
- ◇ On the other hand, the circumstances related to efforts toward resource circulation is changing significantly with marine plastic litter issues and the introduction or enhancement of bans against plastic waste imports in emerging economies.

Challenges and future efforts

- ◇ Keidanren will actively and voluntarily engage in the promotion of the 3Rs through continued efforts to promote the Voluntary Action Plan for Establishing a Sound Material-Cycle Society while not only reducing the final disposal volume of industrial waste but also improving the quality of the material-cycle and "industry-specific plastic-related targets".
- ◇ Keidanren is determined to continue to engage in recycling method innovations, including development of new feasible low-cost technologies and their deployment, as well as non-technology socio-economic innovations, including lifestyle transformations through collaboration and cooperation with various sectors and levels of society.
- ◇ Given limited room for the further reduction of final disposal volume of industrial waste under current level of available technologies and existing legislative framework in Japan, it is critical that the Japanese Government improve and review related legislations and their administration and provide other policy support. In addition, the digitalization of waste information and the utilization of data promise to lead to innovation and higher productivity.