Voluntary Action Plan for Establishing a Sound Material-Cycle Society — Results of Fiscal 2021 Follow-up-<Overview>

March 15, 2022 Keidanren

1. Voluntary Action Plan for Establishing a Sound Material-Cycle Society (FY2016-2020)

* 45 participating industries

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

 \Rightarrow Industry as a whole "aims to reduce **by fiscal 2020**, the final disposal volume of industrial waste appropriately treated with consideration for achieving a low-carbon society by **70% from the actual performance level in fiscal 2000**".

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

⇒ <u>Set up individual targets</u> accomodating industry-specific characteristics and circumstances for <u>improving the quality of</u> <u>resource circulation</u>.(e.g. target material recycling rate for byproducts generated during a product's manufacturing process)

(3) "Industry-specific plastic-related targets" (fiscal 2019-)

⇒Based on Keidanren's "Opinion on formulating the 'Resource Circulation Strategy for Plastics'" (Nov. 2018), <u>set up industry-</u> specific targets contributing to resolving marine plastic litter issues and promote plastic resource circulation.

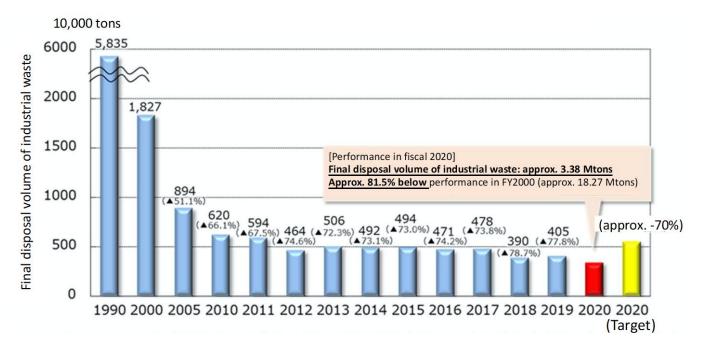
اــ	Packground (rofe	ranca)				
įΙ	Background (refe	Tence)				
! ! !	(1)1997	Formulated the Voluntary Action Plan on the Environment (Section on Waste Disposal Measures); annual follow-ups				
!	(2) Dec. 1999	Set up First Target: 75% below FY1990 performance level of final disposal volume of industrial waste in FY2010				
į	(3) Mar. 2007	Renewed to the Voluntary Action Plan on the Environment (Section on the Establishment of a Sound Material-Cycle				
į		Society)				
į		Set up Second Target: 86% below FY1990 performance level of final disposal volume of industrial waste in FY2010				
į		Set up industry-specific targets (using indicators other than final disposal volume)				
į	(4) Dec. 2010	Third Target: around 65% below FY2000 performance level of final disposal volume of industrial waste in FY2015				
į		Set up industry-specific targets (using indicators other than final disposal volume)				
į	(5) Mar. 2016 Renewed to Voluntary Action Plan for Establishing a Sound Material-Cycle Society; Set abovementioned targets					
į	(6) Apr. 2019 Set up "Industry-specific plastic-related targets"					
į	7) Mar. 2021 Third Target: around 75% below FY2000 performance level of final disposal volume of industrial waste in FY2025					
į		Set up "Industry-specific targets" (other than final disposal volume target) and "Industry-specific plastic-related				
i		targets"				

2. Performance in fiscal 2020: (1) Reductions in final disposal volume of industrial waste (Fourth Target)

- Supported by the high standards of Japanese companies, reductions amounted to <u>approx. 81.5% of performance in fiscal 2000</u> (baseline year), <u>overachieving the target level of the Plan (reduction by around 70%)</u>

By industry, 20 industries out of the 32 industries with final disposal targets saw reductions. This can be attributed to reduced construction work compared to the previous fiscal year and stagnated economic activities due to the spread of COVID-19, in addition to industrial efforts to reduce industrial waste and promote the 3Rs (reduce, reuse, and recycle).

<Total final disposal volume of industrial waste general by participating industries>



(2) Industry-specific targets & efforts

♦42 industries set up individual targets accommodating industrial characteristics and circumstances and implemented measures for their achievement

(Examples of industry-specific targets)

- Achieve material recycling rate of around 95% in FY2020
- Maintain volume of generated industrial waste at levels not exceeding 1,000 ton
- Reduce volume of municipal solid waste from business activities by 55% from fiscal 2000 level.
- Reduce volume of paper containers and packaging used per unit sales by 50% relative to fiscal 2000 level.
- Achieve a procurement rate of at least 75% for recycled paper and environment-friendly paper
- Achieve a material recycling rate of at least 90% for steel cans
- Maintain zero emission (final disposal rate of 1%)
- Maintain a material recycling rate of 100%; etc.

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

(Examples of efforts)

<Efforts to reduce environmental burden through product life cycles>

- Establish recycling routes through collaboration across the supply chain
- Design products that are easy to recycle

- Visualize environmental effects by implementing product LCA
- Omit and simplify packing and introduce returnable packing material

<Technology development>

- Develop technologies to utilize biomass
- Develop technologies to recover energy from waste

Develop CFC-free technologies

Develop technologies to utilize used oil

<Provision of new products and services>

- Develop and provide products using circular materials
- Develop efficient waste treatment equipment

- Generate biogas from waste
 - Develop recyclable containers and packaging

<International contribution / overseas activities>

- Support introduction of recycling systems
- Provide biomass power generation boilers in Southeast Asia, etc.
- Engage in overseas tree-planting activities
- Implement overseas CO2 reduction support projects

<Other>

- Beautification and cleanup activities in rivers, beaches and roads
 - Promote paperless operation through digitization

- Cooperate in disaster-related waste treatment
- Participate in environment-related events; etc.

2. (3) Industry-specific plastic-related targets

- From the perspective of deepening voluntary approaches by the business community that <u>contribute to solving</u> <u>marine plastic litter issues and promoting plastic resource circulation</u> and of expanding the horizons of such efforts, industries set up "industry-specific plastic-related targets" based on the Keidanren Opinion (November 2018).
- \bigcirc Keidanren will promote these voluntary approaches and seek to contribute to solving plastic issues.

(Plastic-related quantitative targets (33 targets)

- Quantitative targets, including target recycling rates and effective utilization rates (18 targets)
- Quantitative reduction targets, including targets to reduce weight and/or volume of use (5 targets)
- · Quantitative targets regarding the reduction of final disposal volumes (4 targets)
- Quantitative targets regarding the implementation rate of measures taken by member companies (6 targets)

(Plastic-related qualitative targets (50 targets)

- Targets regarding reuse and recycling efforts and the promotion of such activities (15 targets)
- Targets regarding the promotion of reduction measures (8 targets)
- Targets regarding the promotion of beautification activities in communities, rivers and beaches (4 targets)
- Targets regarding educational and awareness-raising activities targeting member companies and customers (12 targets)
- Targets regarding the development of new technologies, including biomass technologies and recycling technologies (9 targets)
- Targets regarding the proactive purchasing of environment-friendly products and support for environmentally advanced companies (2 targets)

<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, based on the Keidanren Proposal "Toward the Establishment of an Effective Recycling System for Containers and Packaging" (October 2005).
- ♦ In fiscal 2021, a follow-up survey was conducted for the final year of the Voluntary Action Plan (performance in fiscal 2020) and the results achieved in five years were compiles.

<Recycling rate targets and performance>

<Reduction rate targets and performance>

Material	Indicator	FY2020 target	FY2020 performance
Glass bottles	Recycling rate	70%+	69.0%
PET bottles		85%+	88.5%
Steel cans		90%+	94.0%
Aluminum cans		90%+	94.0%
Plastic containers and packaging	Recycling rate (material recycling rate)	46%+	46.5%
Paper containers and packaging	Collection rate	28%+	35.1%
Paper containers for beverages		50%+	38.8%
Cardboard boxes		95%+	96.1%

Material	Indicator	FY2020 target (relative to FY2004)	FY2020 performance
Glass bottles		1.5% lighter	2.2%
PET bottles	Average weight	25% lighter	25.3%
Steel cans	per bottle/can	8% lighter	8.6%
Aluminum cans	p = 1 = 2 = 1 = 1	5.5% lighter	5.8%
Plastic containers and packaging	500ml milk carton	3% lighter	2.5%
Cardboard boxes	Average weight per m ²	6.5% lighter	6.1%
Paper containers for beverages		14%	23.5%
Plastic containers and packaging	Reduction rate	16%	19.2%

Reference: PET bottle collection rate: 96.7% (Performance in FY2020)

3. Near future challenges

Understanding the status quo

- Japan has been very successful in its efforts to achieve a Sound Material-Cycle Society, supported by cooperation and collaboration among national government, local governments, business operators, consumers and non-profit organizations.
- In April, the Plastic Resource Circulation Act, which promotes resource circulation with a focus on plastic as a "material," will be enacted, calling for the further facilitation of plastic resource circulation.
- Transition from the conventional linear economy, characterized by mass production, mass consumption and mass disposal, to a circular economy is an emerging global trend.

Challenges and future efforts

- Keidanren will continue to promote the Voluntary Action Plan for Establishing a Sound Material-Cycle Society in 2021 and beyond, and actively and voluntarily engage in the promotion of the 3Rs by not only working vigorously to reduce the final disposal volume of industrial waste, but also enhancing industry-specific plastic-related targets, as well as industry-specific targets with a view improving the quality of resource circulation. It will contribute to resolving tight landfill space issues and marine plastic litter issues while proactively seeking transition to a circular economy.
- Guided by the basic philosophy of making every possible effort to achieve a sustainable and rich future society governed by sustainable capitalism, Keidanren will engage in a wide range of innovations, including not only technological innovations, such as developing new socially implementable low-cost technologies, but also lifestyle transformations through collaboration and cooperation among various sectors and strata of society. Furthermore, we will promote "Integrated Environmental Corporate Management," addressing climate change countermeasures and biodiversity conservation activities, as well as resource circulation measures, as critical business management challenges.

4. [Reference] Initiatives taken by Keidanren in fiscal 2021

Initiatives for the circular economy

- ♦ In March 2021, Keidanren, jointly with the Ministry of the Environment and the Ministry of Economy, Trade and Industry, founded the Japan Partnership for Circular Economy (J4CE), which aims to enhance public-private partnership with a view to foster further understanding for a circular economy.
- The Partnership engages in activities under its pillars of activity: 1) Collecting and communicating to domestic and overseas audiences, examples of Japan's advanced initiatives related to circular economy; 2) sharing information and building networks on circular economy; 3) setting fora for dialogue toward promoting circular economy.

Addressing the resource circulation of plastics

- Keidanren attended the joint meeting of the Central Environment Council and the Industrial Structure Council, held in June 2021 for the purpose of considering cabinet orders and ministerial ordinances in relation to the Act and its announcement, and advocated the development of a scheme that would support voluntary approaches taken by the business community.
- The Act provides for measures to facilitates the resource circulation of plastics. Given the momentum of its enactment, Keidanren is determined to further promote voluntary approaches taken by the business community and engage in the enhanced sophistication of plastic resource circulation.

<Reference> Policy for the Voluntary Action Plan for Establishing a Sound Material-Cycle Society from 2021 and beyond

- Initiatives taken toward establishing a sound material-cycle society are not only important <u>for Japan</u>, <u>in light of its limited domestic resources</u>, but are increasing their importance globally, <u>given</u> <u>looming resource constraints due to growing populations</u>.
- We also need to address new challenges, including <u>marine plastic litter issues and waste import</u> <u>restrictions adopted by other countries</u>.
- ◇ In our continued efforts to create and promote innovation, we will encourage the Japanese business community to engage in voluntary approaches, under three targets: (1) reduction targets for the final disposal volume of industrial waste; (2) industry-specific targets; and (3) industry-specific plastic-related targets.

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

- ⇒ The business community will collectively aim to reduce the final disposal volume of industrial waste appropriately treated with consideration for achieving a low-carbon society **by around 75% in fiscal 2025** relative to the fiscal **2000** performance level.
- (2) Industry-specific targets with a view to improve the quality of resource circulation
- ⇒ Industries will voluntarily and individually set up « <u>industry-specific targets » for improving the</u> quality of resource circulation, accommodating industry-specific characteristics and circumstances.
- (3) Industry-specific plastic-related targets (fiscal 2019-)
- ⇒ Industries will set up targets that contribute to **solving marine plastic litter issues and to promoting plastic resource circulation.** In addition to further enhancing targets, we will **widely communicate such efforts in Japan and overseas.**