

**Voluntary Action Plan  
for Establishing a Sound Material-Cycle Society  
—Results of Fiscal 2020 Follow-up—  
<Summary>**

March 16, 2021  
Keidanren (Japan Business Federation)

**1. Efforts under the Voluntary Action Plan for Establishing a Sound Material-Cycle Society**

Keidanren formulated the Voluntary Action Plan for Establishing a Sound Material-Cycle Society (“Voluntary Action Plan”) to promote voluntary efforts on the part of Japan’s business community. Every year, it conducts and publishes a follow-up survey with cooperation of participating industries (see Reference 1 & 2 for details on its background). This fiscal year, a follow-up survey was conducted with a total of 45 participating industries.

Under the Voluntary Action Plan, each participating industry takes measures to achieve three types of targets: (1) reductions in the final disposal volume of industrial waste; (2) other industry-specific targets; and (3) industry-specific plastic-related targets.

In addition to achieving industry-specific targets for reducing the final disposal volume of industrial waste, with a view to not increasing the final disposal volume of industrial waste from the current level, “the Japanese business community as a whole seeks 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” (Fourth Target, revised in March 2016).

In addition, based on industry-specific characteristics and circumstances, from the perspective of improving the quality of resource circulation, each industry has set up individual targets, including target recycling rates for byproducts produced during manufacturing processes and targets for reducing municipal solid waste from business activities.

Furthermore, from fiscal 2019, given rising domestic and global concerns regarding marine plastic litter issues, Keidanren has set up industry-specific plastic-related targets in order to promote measures to deal with plastic issues and to widely communicate the efforts made by Japan’s business community.

We conducted a survey on the performance achieved in fiscal 2019 with regard to the progress made toward meeting the economy-wide and industry-specific targets, the specific initiatives taken to achieve these targets, and the industry-specific plastic-related targets that were newly introduced in the previous fiscal year. The survey results have been compiled in the results fiscal 2020 follow-up herein.

Furthermore, the target year of the current targets is fiscal 2020; therefore, we will also report the policy of the Voluntary Action Plan for fiscal 2021 and beyond, as well as the new industry-specific targets. (See “Policy for the Voluntary Action Plan for Establishing a Sound Material-Cycle Society from Fiscal 2021” should be referred to.)

\*Industries participating in the Fiscal 2020 Voluntary Action Plan for Establishing a Sound Material-Cycle Society (45 industries)

Electric power, gas, petroleum, iron and steel, non-ferrous metals, aluminum, brass, electric cable and wire, rubber, flat glass, cement, chemical, pharmaceuticals, pulp and paper, electrical and electronics, industrial machinery, bearing, automobiles, auto parts, auto-body, industrial vehicles, rolling stock, shipbuilding, flour, sugar, milk and dairy products, beverages, beer, construction, aviation, telecommunications, printing (The above 32 industries are counted when calculating the industry-wide industrial waste final disposal volume.); housing (Waste from the housing industry is included in that from the construction industry, and therefore is not added to total in order to avoid double-counting.), real estate, machine tools, trade, department stores, chain stores, convenience stores, railway, maritime transport, banking, nonlife insurance, securities, life insurance

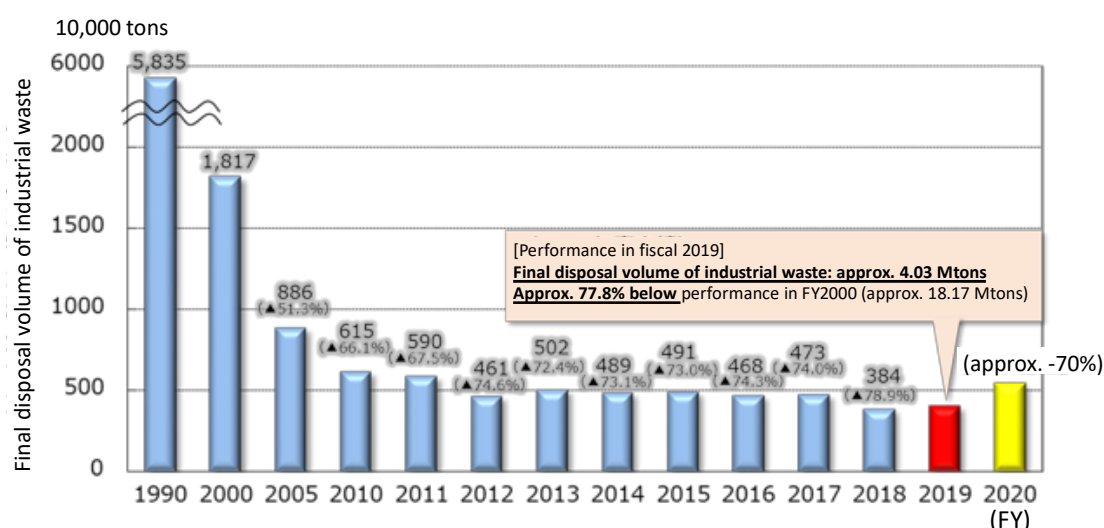
## **2. Results of efforts in fiscal 2019**

### **(1) Reduction target for final disposal volume of industrial waste**

In fiscal 2019, the final disposal volume of industrial waste (32 industries) was approximately 4.03 million tons, approximately 77.8% below the performance level in fiscal 2000 (approximately 18.17 million tons), the baseline year (approximately 93.0% below the fiscal 1990 level), thus overachieving the Plan's target (cf. Figure 1.).

In fiscal 2019, the final disposal volume of industrial waste marked an increase of approximately 0.19 million tons (approximately 5.0%) relative to the previous fiscal year (fiscal 2018 performance). This is assumed to be a consequence of increased construction work resulting from measures to maintain the functions of important infrastructure for disaster prevention and mitigation, while industries advanced their efforts to reduce industrial waste volume and to promote the 3Rs (reduce, reuse and recycle).

**Figure 1. Total final disposal volume of industrial waste generated by participating industries**



\*1: The rate (%) of reduction from final disposal volume of industrial waste in fiscal 2000 (baseline year) is provided in round brackets.

\*2: Total final disposal volume of industrial waste in 32 industries out of the 45 industries participating in the Plan.

\*3: The figure provided for performance in fiscal 1990 does not include the cement, bearing, shipbuilding, aviation and printing industries.

The figure provided for performance in fiscal 2000 does not include figures for the cement and printing industries and includes a sum of figures from past reports for the rubber industry.

The five industries mentioned above collectively account for approximately 0.5% of performance in fiscal 2019.

\*4: The final disposal volume of industrial waste recorded in fiscal 2019 amounted to approximately 4.03 million tons, accounting for around 43.2% of total nationwide final disposal volume of industrial waste, which was approximately 9.31million tons (fiscal 2018, according to Ministry of the Environment survey).

Industrial waste from organizations and companies that are not included in the Keidanren survey include for example, industrial waste (mainly sludge) from water and sewage works and the ceramics industry and industrial waste (animal and plant residue and animal feces) from the agricultural sector, etc.

## (2) Industry-specific targets

Industries set up individual targets accommodating industry-specific characteristics and circumstances and engaged in efforts to achieve them. The targets and performance in fiscal 2019 for each industry are presented in Table 1. (Details can be found in the Industry-specific Report (Japanese version only)). Keidanren will continue to encourage industries to set up industry-specific targets that will contribute to improving resource circulation.

**Table 1. List of industry-specific targets**

[Explanation of targets]

○: Quantitative targets

□: Qualitative targets

[ \* ] : Overachieved targets

※Targets are for industrial waste unless otherwise indicated.

Electric power	<ul style="list-style-type: none"> <li>○ Make efforts to achieve recycling rate of 95% in fiscal 2020 <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 98% [ * ]</li> </ul> </li> </ul>
Gas	<ul style="list-style-type: none"> <li>○ Maintain volume of industrial waste generated at city gas manufacturing plants at levels not exceeding 1,000 tons through fiscal 2020 (79% below fiscal 2000 level). <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 1,000 tons [ * ]</li> </ul> </li> <li>○ Reduce drilling mud from city gas conduit construction by no less than 17%, using an integrated indicator that combines drilling mud reduction and recycling. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 18.3%</li> </ul> </li> </ul>
Petroleum	<ul style="list-style-type: none"> <li>○ Maintain and continue zero emission (final disposal rate of no more than 1%) through fiscal 2020. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 0.1% [ * ]</li> </ul> </li> </ul>
Iron and steel	<ul style="list-style-type: none"> <li>○ Achieve steel can recycling rate of at least 90% <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 93.3% [ * ]</li> </ul> </li> </ul>
Aluminum	<ul style="list-style-type: none"> <li>○ Maintain aluminum dross recycling rate of no less than 99% in fiscal 2020. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2018: 99.9% [ * ]</li> </ul> </li> </ul>
Brass	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no less than 90% in fiscal 2020. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 95.1% [ * ]</li> </ul> </li> </ul>
Electric cable and wire	<ul style="list-style-type: none"> <li>○ Make efforts to maintain a recycling rate of no less than 95% in fiscal 2020. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 94.4%</li> </ul> </li> </ul>
Rubber	<ul style="list-style-type: none"> <li>○ Achieve a recycling rate of no less than 70% in fiscal 2020. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 92.9% [ * ]</li> </ul> </li> </ul>
Flat glass	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no less than 95%. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 87.3%</li> </ul> </li> </ul>
Cement	<ul style="list-style-type: none"> <li>□ Receives large volumes of waste and byproducts accepted by other industries and utilizes them in cement production.</li> </ul>
Chemicals	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no less than 65% in fiscal 2020. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 69% [ * ]</li> </ul> </li> </ul>
Pharmaceuticals	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no less than 55% in fiscal 2020. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 62.9% [ * ]</li> </ul> </li> <li>○ Improve waste generation intensity in fiscal 2020 to 50% relative to the fiscal 2000 level. (Reduce to a level of no more than 2.2 tons/0.1 billion yen.) <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 1.9 tons/0.1 billion yen [ * ]</li> </ul> </li> </ul>
Pulp and paper	<ul style="list-style-type: none"> <li>○ Make efforts to maintain current level (97%) of effective utilization. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 98.4% [ * ]</li> </ul> </li> </ul>

Electrical and electronics	<ul style="list-style-type: none"> <li>○ Reduce the final disposal rate to no more than 1.8% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 2.8%</li> </ul>
Industrial machinery	<ul style="list-style-type: none"> <li>○ Make efforts to achieve recycling rate of no less than 90%.</li> <li>➤ Performance in fiscal 2019: 90.7% [※]</li> </ul>
Bearing	<ul style="list-style-type: none"> <li>○ Make efforts to achieve recycling rate of no less than 96% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 95.3%</li> </ul>
Automobile	<ul style="list-style-type: none"> <li>○ Maintain recycling rate of no less than 99% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 99.9% [※]</li> </ul>
Auto parts	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no less than 85% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 84.6%</li> </ul>
Auto-body	<ul style="list-style-type: none"> <li>○ Achieve industry participation rate of no less than 95% in terms of sales (ratio of companies of the industry participating in the Voluntary Action Plan).</li> <li>➤ Performance in fiscal 2019: 98.1% [※]</li> </ul>
Industrial vehicles	<ul style="list-style-type: none"> <li>○ Make efforts to maintain recycling rate of no less than 90% for industrial waste generated during the manufacturing process.</li> <li>➤ Performance in fiscal 2019: 91.9% [※]</li> </ul>
Rolling stock	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no less than 99% in fiscal 2020 and make efforts to come as close to 100% as possible.</li> <li>➤ Performance in fiscal 2019: 99.9% [※]</li> </ul>
Shipbuilding	<ul style="list-style-type: none"> <li>○ Make efforts to achieve recycling rate of around 86% at the manufacturing phase of shipbuilding in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 79.5%</li> </ul>
Flour	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no less than 90% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 94.5% [※]</li> </ul>
Sugar	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no less than 98% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 95.2%</li> </ul>
Milk and dairy products	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no less than 97% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 97.3% [※]</li> </ul>
Soft drinks	<ul style="list-style-type: none"> <li>○ Maintain a recycling rate of no less than 99%.</li> <li>➤ Performance in fiscal 2019: 98.7%</li> </ul>
Beer	<ul style="list-style-type: none"> <li>○ Maintain 100% recycling rate in fiscal 2020.</li> <li>➤ Performance in fiscal 2018: 100% [※]</li> </ul>
Construction	<ul style="list-style-type: none"> <li>○ Achieve construction sludge recycling rate of no less than 90% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 94.6%</li> <li>○ Achieve a mixed construction waste recycling rate of no less than 60% in 2020.</li> <li>➤ Performance in fiscal 2019: 63.2%</li> </ul>
Aviation	<ul style="list-style-type: none"> <li>○ Aim to achieve final disposal rate of no less than 2.4% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 4.9%</li> </ul>
Telecommunications	<ul style="list-style-type: none"> <li>○ Achieve zero emissions (final disposal rate of no more than 1%) for waste from telecommunications facilities.</li> <li>➤ Performance in fiscal 2019: 0.07% [※]</li> </ul>
Printing	<ul style="list-style-type: none"> <li>○ Achieve recycling rate of no more than 95% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 98.4% [※]</li> </ul>
Housing	<ul style="list-style-type: none"> <li>○ Aim to achieve the following category-specific recycling rates in fiscal 2015 and beyond: Concrete: 96%; wood: 70%; steel: 92%</li> <li>➤ Performance in fiscal 2019: 87.0% (weighted average of the 3 categories)</li> </ul>

Real estate	<ul style="list-style-type: none"> <li>○ Aim to achieve paper recycling rate of no less than 85% in fiscal 2020. Make efforts to maintain recycling rate of 100% for glass bottles, cans and PET bottles. <ul style="list-style-type: none"> <li>➤ Performance in fiscal 2019: 85.1%</li> <li>➤ Performance in fiscal 2019: paper 87.0% [*]; glass bottles 100% [*]; cans 100% [*]; PET bottles 100% [*]</li> </ul> </li> <li>□ Improve purchasing rate of recycled paper.</li> <li>□ Improve green procurement rate.</li> </ul>
Machine tools	<ul style="list-style-type: none"> <li>➤ Achieve recycling rate of no less than 90% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 91.0% [*]</li> </ul>
Trade	<ul style="list-style-type: none"> <li>➤ Reduce disposal volume of municipal solid waste from business activities by 86% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 83.1%</li> <li>➤ Reduce volume of municipal solid waste from business activities by 55% from fiscal 2000 level (to no more than 4,000 tons).</li> <li>➤ Performance in fiscal 2019: 3,800 tons [*]</li> </ul>
Department stores	<ul style="list-style-type: none"> <li>➤ Aim to reduce final disposal volume (per 1m<sup>2</sup>) of waste generated in stores by 60% from year 2000 level in 2030.</li> <li>➤ Performance in fiscal 2019: 53.6% reduction</li> <li>➤ Reduce intensity (volume used per unit sales) of paper containers and packaging (wrapping paper, carrier bags, paper bags, paper boxes) use by 50% relative to year 2000 levels in 2030.</li> <li>➤ Performance in fiscal 2019: 40.4% reduction</li> </ul>
Railway	<ul style="list-style-type: none"> <li>➤ Achieve recycling rate of 94% for waste from stations and railcars.</li> <li>➤ Performance in fiscal 2019: 93%</li> <li>➤ Achieve recycling rate of 96% for waste generated at General Rolling Stock Centers, etc.</li> <li>➤ Performance in fiscal 2019: 95%</li> <li>➤ Achieve recycling rate of 96% for waste generated in facility construction.</li> <li>➤ Performance in fiscal 2019: 93%</li> </ul>
Maritime transport	<ul style="list-style-type: none"> <li>□ Appropriately manage waste in accordance with international standards.</li> <li>□ Make efforts to control waste generation.</li> </ul>
Banking	<ul style="list-style-type: none"> <li>➤ Achieve paper recycling rate of no less than 90% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 91.3% [*]</li> <li>➤ Increase purchasing rate of recycled paper and environment-friendly paper to no less than 75% in fiscal 2020.</li> <li>➤ Performance in fiscal 2019: 77.6% [*]</li> </ul>

Non-life insurance	<input type="checkbox"/> At individual insurance companies, 1. Establish a corporate waste management scheme to promote reductions in municipal solid waste from business activities generated at offices and collaborate with waste collection companies to ensure segregated collection and improve recycling rate. 2. Make efforts to purchase office supplies that contribute to increasing the utilization rate of environment-friendly products. 3. Reduce OA paper use through efforts made toward achieving corporate targets including the active utilization of two-sided copying, 2in1 copying, tablet devices, etc. <input type="checkbox"/> Reach out to society through automobile insurance. Promote use of recycled auto parts.
Securities	<input type="checkbox"/> Make efforts to reduce paper use and thus promote resource conservation measures by utilizing two-sided copying and 2in1 copying and promoting paperless operations by digitalizing documents. <input type="checkbox"/> Make efforts to reduce environmental burden and to recycle resources by promoting the use of paper manufactured using methods that reduce environmental burden and ensuring segregated waste collection.
Life insurance	<input type="checkbox"/> Make efforts to reduce paper use by promoting paperless practices. <input type="checkbox"/> Make efforts to engage in green procurement of paper and office supplies. <input type="checkbox"/> Make efforts to engage in fully segregated waste collection. <input type="checkbox"/> Make efforts that will lead to the reuse of paper and other resources.



## 【Reference】

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

According to the “Voluntary Action Plan for Promoting the 3Rs in Containers and Packaging 2020 Follow-Up Results (Performance in fiscal 2019)” (December 2020), the recycling and collection rates of steel cans, aluminum cans and cardboard boxes have remained above 90%, thus steadily achieving success. (see Table 2.)<sup>1</sup>.

Regarding plastics, a recycling rate of approximately 85% were achieved for PET bottles, which have become 24.8% lighter per bottle compared to fiscal 2004 levels. The 3Rs are also being promoted for plastic resources, succeeding in cumulative reductions of plastic packaging and containers by 17.6 % from fiscal 2005 levels (see Figure 2.).

**Table 2. Status of recycling targets**

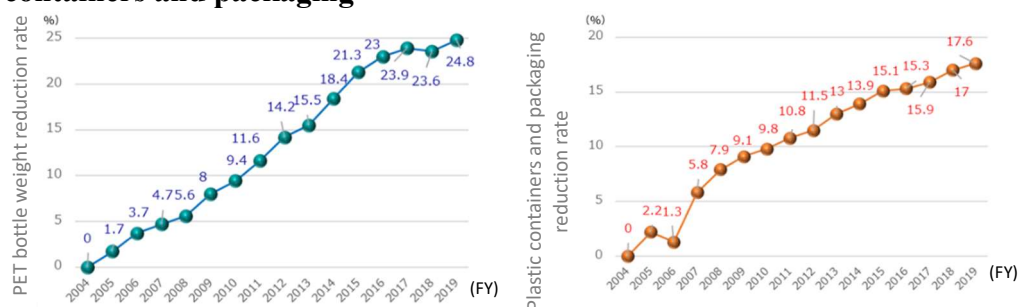
Material	Indicator	Fiscal 2020 target	Fiscal 2019 performance	<Reference> Fiscal 2018 performance
Glass bottles	Recycling rate	No less than 70%	67.6%	(68.9%)
PET bottles		No less than 85%	85.8%	(84.6%)
Steel cans		No less than 90%	93.3%	(92.0%)
Aluminum cans		No less than 90%	97.9%	(93.6%)
Plastic containers and packaging	Recycling rate	No less than 46%	46.4%	(45.4%)
Paper containers and packaging	Collection rate	No less than 28%	26.6%	(27.0%)
Paper containers for beverages		No less than 50%	41.4%	(42.5%)
Cardboard boxes		No less than 95%	94.6%	(96.1%)

<Source: Liaison Committee of Associations Promoting 3R>

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<sup>1</sup>Refer to the Liaison Committee of Associations Promoting 3R website for details: <http://www.3r-suishin.jp>

**Figure 2. Weight reduction rate of PET bottles and reduction rate of plastic containers and packaging**



<Source: compiled by Keidanren based on figures published by the  
Liaison Committee of Associations Promoting 3R>

### (3) Industry-specific plastic-related targets and other efforts

In August 2018, Keidanren compiled and published “Opinion on formulating ‘Japan’s Resource Circulation Strategy for Plastics,’” covering the Japanese business community’s basic approach and views on future measures regarding marine plastic litter issues faced at the global level and domestic plastic resource circulation<sup>2</sup>. In the Opinion, we included our intentions to “discuss how to enhance the Keidanren Voluntary Action Plan for Establishing a Sound Material-Cycle Society in a more plastic-conscious way.”

Based on the Keidanren Opinion, organizations and companies participating in the Keidanren Voluntary Action Plan for Establishing a Sound Material-Cycle Society considered targets that would contribute to solving marine plastic litter issues and promote plastic resource circulation from the perspective of deepening voluntary approaches by the business community and expanding the horizons of such efforts. As a result, in April 2019, each industry set up “industry-specific plastic-related targets.” In fiscal 2020, 40 industries announced a total of 85 diverse targets as given in Table 3 and a follow-up survey was conducted against these targets.

Furthermore, industries have also been engaged in efforts that have not been listed as targets, such as beach and river cleanups, outreach efforts using workshops and posters, promoting the use of alternative materials, and distributing reusable shopping bags. (For details and the follow-up results, see the “Industry-specific Report.”)

With a view to the growing global importance of marine plastic litter issues and the challenges related to promoting plastic resource circulation, Keidanren will seek to

<sup>2</sup>For details, see: <http://www.keidanren.or.jp/policy/2018/098.html>

further enhance targets, while also promoting understanding for the efforts made by the Japanese business community by widely communicating both domestically and overseas the voluntary approaches taken by these industries.

**Table 3. Industry-specific plastic-related targets**

<p>[Explanation of targets]  <b>【Quan○】</b> : Quantitative target  <b>【Qual○】</b> : Qualitative target  <b>〔*〕</b> : Overachieved targets  ※For details, see the “Industry-specific Report.”</p>		
Electric power	<b>【Qual①】</b> <b>【Qual②】</b>	Promote recycling of materials, including plastic wastes Promote beautification and cleanup activities
Gas	<b>【Quan①】</b>	Aim for 100% effective utilization of used polyethylene gas pipes, including thermal recovery by fiscal 2030 ➤98.6% (Fiscal 2019)
Petroleum	<b>【Quan①】</b>  <b>【Qual①】</b>	Achieve 100% implementation rate of systems ensuring segregated waste collection at each company (office) in fiscal 2020 ➤50.4% (fiscal 2019) Proactively engage in litter cleanup activities, including cleanups of plastic litter, in public spaces (roads, beaches, etc.)
Iron and steel	<b>【Quan①】</b>	Assuming that a legal system that further promotes the formulation of a sound material-cycle society will be established and that a collection system will be established under Government leadership, make efforts with an aim to use 1 Mt waste plastics annually. Note: revision of Commitment to a Low Carbon Society Phase 1 (2020 target) (from Iron and Steel WG Report on February 17, 2017) • The Association has aimed to reduce emissions by 2 Mt-CO <sub>2</sub> by expanding feedstock recycling of waste plastics at steel plants (utilization of 1 million tons), assuming that a collection system would be established under Government leadership. • In the May 2016 “Report on Evaluation and Study of the Implementation Status of the Containers and Packaging Recycling System,” the Association decided to “continue to prioritize recycling for 50% of material” and to conduct a review “in around 5 years.” • Given that the newly decided policy has made it extremely difficult to increase the utilization of waste plastics to 1 Mt in 2020 under the current circumstances, only increases in the volume of collected waste plastics, etc, relative to fiscal 2005 levels will be counted as reductions. ➤450,000 tons (fiscal 2019)
Non-ferrous metals	<b>【Qual①】</b>	Reduce plastic wastes and promote recycling

Aluminum	【Quan①】	Maintain current plastic waste recycling rate through fiscal 2030 and aim to achieve higher rates.
Brass	【Quan①】	Maintain plastic waste recycling rate of no less than 85% through fiscal 2030. ➢90% (fiscal 2019)
Electric cable and wire	【Quan①】 【Qual①】	Limit final waste disposal volumes of plastic and rubber wastes to below current levels (baseline year: fiscal 2019) Enhance information-sharing among members
Rubber	【Quan①】	Maintain plastic waste recycling rate of no less than 85% through fiscal 2030.
Cement	【Qual①】	Increase receipt and treatment of plastic wastes
Chemical	【Quan①】 【Quan②】 【Qual①】 【Qual②】 【Qual③】 【Qual④】 【Qual⑤】 【Qual⑥】 【Qual⑦】	[JPIF] Encourage a wider range of companies to take measures to prevent resin pellet spill [JPIF] Increase the number of companies and organizations participating in the campaign to announce declarations towards resolving marine plastic litter issues ➢Currently, 54 companies and 16 organizations have declared measures. [JPIF] Conduct awareness-raising campaigns regarding marine plastic litter issues (host lectures, send lecturers) [JPIF] Coordinate academic research on marine plastic litter issues [JCIA LRI] Evaluate exposure or risk of environmental organisms to chemical substances absorbed by microplastics [JCIA LRI] Clarify the mechanism of microplastics generation [JaIME (Japan Initiative for Marine Environment)] Organize training seminars for dissemination in Asia [JaIME (Japan Initiative for Marine Environment)] Verify the effectiveness of energy recovery [JaIME (Japan Initiative for Marine Environment)] Conduct domestic awareness-raising campaigns: Widespread and deepened awareness that plastic is made from limited resources and thus bear value, will lead to the prevention of littering.
Pharmaceuticals	【Quan①】	Achieve plastic waste recycling rate of 65% in fiscal 2030. ➢59.1% (fiscal 2019)
Pulp and paper	【Qual①】 【Qual②】	Develop and supply biodegradable materials from paper pulp Accelerate the replacement of plastics by improving the functionality of existing paper products.
Electrical and electronics	【Qual①】 【Qual②】 【Qual③】	Promote lifecycle design and material circulation measures of products and packaging considering the 3Rs. Promote the 3Rs of plastic wastes in production. Implement measures, including cleanups, addressing marine plastic litter issues that contribute to biodiversity.

Bearing	【Quan①】	Make efforts to achieve recycling rate of no less than 96% for waste, including plastic waste in fiscal 2030. ➢ 95.3% (fiscal 2019)
Automobiles	【Quan①】 【Quan②】	Maintain recycling rate of no less than 99% for all industrial waste generated at factories through fiscal 2020. ➢ 99.9% (fiscal 2019) [ * ] Continue and maintain recycling rate of no less than 90% for automobile shredder residue through fiscal 2030. ➢ 95+% at each company (fiscal 2019) [ * ]
Auto parts	【Quan①】 【Quan②】 【Qual①】 【Qual②】	Achieve final disposal volume of 45,000 t or less for industrial waste in fiscal 2020. (equivalent to 68% reduction from fiscal 2000 level) ➢ 34,000 tons (fiscal 2019) [ * ] Achieve recycling rate of no less than 85% for all byproducts (industrial waste, valuable waste) generated at factories, etc. in fiscal 2020. ➢ 84.6% (fiscal 2019) Make efforts to promote the development and design of automobile parts with a view to improving the recyclability of disused automobiles and to improve the quality of 3R activities, including resource circulation Collect corporate waste reduction cases from member companies and share information to promote waste reduction
Auto-body	【Quan①】	Reduce final disposal volume of industrial waste by 89% relative to the fiscal 2000 level in fiscal 2020. ➢ 89% reduction (fiscal 2018) [ * ]
Rolling stock	【Quan①】 【Qual①】 【Qual②】	Achieve recycling rate of no less than 99% for industrial waste (including plastics) in 2020 and make efforts to come as close as possible to reaching 100%. ➢ 99.9% (fiscal 2019) [ * ] Promote proper treatment of plastic waste in business operations Change cushioning material from plastic to other materials

Shipbuilding	【Qual①】	<p>The shipbuilding industry appropriately treats all plastic waste (packing material, blue tarps, PET bottles, hoses, etc.) generated from business operations. The industry will continue proper waste treatment and take the following measures with a view to make further improvements:</p> <ul style="list-style-type: none"> <li>• Encourage member companies to perform outreach on environmental conservation and plastic waste-related activities.</li> <li>• Collect case studies of environmental conservation efforts, including cleanups and workshops, made by each company and share them outside the industry.</li> <li>• Introduce new trends regarding plastic wastes at the Environmental Task Force, joined by member companies, and exchange information regarding advanced measures taken in other industries and individual corporate efforts through site visits and various meetings.</li> </ul>
Flour	【Quan①】 【Quan②】	<p>Achieve plastic waste recycling rate of no less than 90% in fiscal 2030.            ➤ 84.7% (fiscal 2019)</p> <p>Reduce final waste disposal volume of plastic waste to below 65 tons            ➤ 76.0 tons (fiscal 2019)</p>
Sugar	【Quan①】	<p>Achieve plastic waste recycling rate of no less than 99% (for small package products) in fiscal 2030.            ➤ 93.8% (fiscal 2019)</p>
Milk and dairy products	【Qual①】 【Qual②】 【Qual③】	<p>Design products to minimize the use of plastic in containers and packaging.</p> <p>Promote the use of environment-friendly materials as raw material for plastics used in containers and packaging.</p> <p>Facilitate the recycling of waste plastics generated from manufacturing processes by using recycling operators.</p>
Soft drinks	【Quan①】 【Quan②】 【Quan③】 【Qual①】 【Qual②】 【Qual③】	<p>PET bottle weight reduction rate of no less than 25% in fiscal 2030 (baseline year: fiscal 2004)            ➤ 24.8% (fiscal 2019)</p> <p>PET bottle recycling rate of no less than 85% in fiscal 2030            ➤ 85.8% (fiscal 2019)</p> <p>PET bottle effective utilization rate of 100% in fiscal 2030            ➤ 98% (fiscal 2019)</p> <p>The Soft Drink Industry's Plastic Resource Circulation Declaration</p> <p>Awareness-raising campaigns against littering of containers</p> <p>Establishing an effective collection system to achieve a collection rate of 100%</p>

Beer	<p>【Quan①】</p> <p>Effectively utilize 100% of all used plastics generated during production (or 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 beer, etc. at all beer factories of the five member companies of the Brewers Association of Japan in fiscal 2030.</p> <p>➤All byproducts and waste is 100% recycled (fiscal 2000-2019) 〔*〕</p> <p>【Qual①】</p> <p>Support the promotion of Town Beautification and Adopt Program activities and awareness-raising campaigns for litter prevention through the Beverage Industry Environment Beautification Association.</p>
Construction	<p>【Qual①】</p> <p>Implement promotional and outreach campaigns, including making posters describing how to segregate waste, in order to ensure implementation of measures to address plastic waste issues at construction sites.</p> <p>【Qual②】</p> <p>Survey the types and ratio of plastic waste generated in the construction of new buildings and consider effective measures to reduce waste generation.</p>
Aviation	<p>【Qual①】</p> <p>Promote the segregation of plastic waste at offices and airports</p> <p>【Qual②】</p> <p>Reuse and reduce plastic products used on flights and at airports.</p> <p>【Qual③】</p> <p>Replace plastic products used on flights and at airports with environment-friendly materials.</p>
Telecommunications	<p>【Qual①】</p> <p>Promote the utilization of used plastics from removed telecommunication facilities</p>
Printing	<p>【Quan①】</p> <p>Aim to maintain a final disposal rate of 0.67% (actual performance in fiscal 2019) against total amount of waste plastics generated</p> <p>【Qual①】</p> <p>Further promote waste reduction of single-use containers and packaging in the near-term through collaboration with upstream and downstream industries of the supply chain.</p> <p>【Qual②】</p> <p>Aim to design plastic containers and packaging that are technically easy to segregate and at the same time reusable or recyclable, while also ensuring their functionality.</p>
Real estate	<p>【Quan①】</p> <p>Maintain a recycling rate of 100% for plastic waste generated at buildings used for the industry's own business operations through fiscal 2030.</p> <p>➤98.7% (fiscal 2019)</p> <p>【Qual①】</p> <p>Improve the green procurement rate of products purchased in buildings used for the industry's business operations.</p>

Trade	<p>【Quan①】</p> <p>【Qual①】</p> <p>【Qual②】</p> <p>【Qual③】</p>	<p>Aim to achieve 100% segregated disposal of PET bottles at each office at the end of fiscal 2020.</p> <p>➤ 100% implementation rate (fiscal 2019) [※]</p> <p>Make industry-wide efforts to handle products and promote business that contribute to the reduction, reuse and recycling of plastics.</p> <p>Organize an annual forum for member companies to exchange information on corporate initiatives addressing plastic-related issues and make an effort to expand initiatives.</p> <p>Ensure the promotion of the 3Rs (reuse, reduce, recycle) of plastics used in the cafeterias at each corporate location.</p>
Department stores	<p>【Quan①】</p>	<p>Aim to 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.</p> <p>➤ 44.2% reduction (fiscal 2019)</p>
Chain stores	<p>【Quan①】</p>	<p>Aim to achieve plastic shopping bag refusal rate of no less than 80%” by fiscal 2030.</p> <p>➤ 44.2% reduction (March 2020)</p>
Convenience stores	<p>【Quan①】</p>	<p>Aim to achieve “shopping bag refusal rate of no less than 30%” by fiscal 2020.</p>
Railway	<p>【Quan①】</p> <p>【Quan②】</p> <p>【Qual①】</p> <p>【Qual②】</p>	<p>Replace plastic shopping bags (around 240 million bags used annually) with bags made from biomass-based material at retail stores directly managed by relevant JR East Group companies that offer customers plastic shopping bags.</p> <p>➤ Completed by September 2020</p> <p>Replace plastic straws (around 30 million straws used annually) with straws made from paper or biodegradable material at retail stores directly managed by relevant JR East Group companies that offer customers plastic straws.</p> <p>➤ Completed by March 2020</p> <p>Promote recycling by installing segregated garbage bins at stations and separately collect PET bottles with the cooperation of customers.</p> <p>Promote customer understanding of the measures taken by the JR East Group to reduce plastics and encourage behavioral change of customers themselves.</p>



Banking	<p>【Quan①】 Engage in segregated collection of used PET bottles at 100% of member banks in fiscal 2030.  &gt;96% (fiscal 2019)</p> <p>【Quan②】 Engage in clean-ups and other measures to reduce marine plastic litter at 100% of member banks in fiscal 2030.  &gt;45% (fiscal 2019)</p> <p>【Qual①】 The banking industry will engage in the effective use of resources and waste reduction.</p> <p>【Qual②】 The banking industry will actively support companies that take measures to address plastic-related issues in line with government policy.</p>
Nonlife insurance	<p>【Qual①】 Encourage employees to bring their own bags and drink bottles.</p> <p>【Qual②】 Prohibit the use of plastic cups and straws at employee cafeterias or replace them with paper products.</p>
Securities	<p>【Qual①】 With a view to plastic resource circulation and measures to prevent the outflow of plastics into the ocean, make efforts to reduce environmental burden and to reuse resources by ensuring the segregated collection of waste, etc.</p>
Life insurance	<p>【Qual①】 Make efforts to reduce environmental burden by reducing the amount of resources, including plastic resources, required to perform business operations, as well as by promoting the recycling of resources.</p>

#### (4) Other efforts towards establishing a sound material-cycle society

In addition to efforts under self-determined industry-specific targets, industries are engaged in efforts exemplified in Table 4. (For details, see “Efforts towards establishing a sound material-cycle society” in the Industry-specific Report (Japanese version only).)

**Table 4. Examples of efforts towards establishing a sound material-cycle society**

Efforts to reduce environmental burden through product life cycles	
<ul style="list-style-type: none"><li>• Effective utilization of waste and byproducts (use as feedstock, etc.)</li><li>• Effective utilization of used products (reuse, recycle, etc.)</li><li>• Design products that are easy to recycle</li><li>• Visualize environmental effects by implementing product LCA</li><li>• Jointly develop recycling technologies with other industries</li><li>• Introduce in-house certification programs for products featuring reduced environmental burden</li><li>• Improve resource utilization efficiency by streamlining manufacturing processes</li><li>• Promote the proper implementation of various recycling laws</li><li>• Introduce maintenance-free and simplified products</li><li>• Consider labelling programs for environment-friendly products</li><li>• Recover rare metals from electronics</li></ul>	<ul style="list-style-type: none"><li>• Effective utilization of packing material</li><li>• Establish recycling routes through collaboration across the supply chain</li><li>• Promote the utilization of recycled products</li><li>• Receive and treat waste from other industries and contribute to reducing final disposal volumes</li><li>• Appropriately select waste treatment businesses</li><li>• Formulate and implement product assessment manuals</li><li>• Produce smaller, more lightweight and longer lifetime products</li><li>• Omit and simplify packing and introduce returnable packing material</li><li>• Proactively utilize certified paper and certified products</li><li>• Adopt buildings with high efficiency, including high insulation</li></ul>
Development of new technologies and products	

<ul style="list-style-type: none"> <li>• Develop technologies to streamline large-scale construction works</li> <li>• Develop and utilize cogeneration technologies</li> <li>• Establish material circulation systems</li> <li>• Develop products free of harmful substances</li> <li>• Develop technologies to recycle used lithium-ion batteries</li> <li>• Develop dechlorination technologies for products with high chloride concentration</li> <li>• Develop efficient waste treatment equipment</li> <li>• Develop recyclability assessment methods</li> <li>• Develop cellulose nanofiber technologies</li> <li>• Conserve water by using remotely monitored toilets</li> </ul>	<ul style="list-style-type: none"> <li>• Develop technologies to utilize biomass</li> <li>• Develop technologies to recover energy from waste</li> <li>• Develop new recycling processes</li> <li>• Generate power using biogas from waste</li> <li>• Develop CFRP recycling technologies</li> <li>• Develop lightweight containers and packaging material and utilize recycled material</li> <li>• Develop recyclable containers and packaging</li> <li>• Develop technologies to utilize used oil</li> <li>• Develop CFC-free technologies</li> <li>• Develop and utilize image-based consolidated management systems for waste treatment processes</li> </ul>
International contribution / overseas activities	
<ul style="list-style-type: none"> <li>• Promote export of waste-utilizing products</li> <li>• Support introduction of recycling systems</li> <li>• Conduct training programs on waste treatment for overseas trainees</li> <li>• Conduct waste management education at overseas corporate locations</li> <li>• Provide biomass power generation boilers to Southeast Asia, etc.</li> <li>• Consider local tax systems and green procurement</li> </ul>	<ul style="list-style-type: none"> <li>• Support overseas application of JIS standards</li> <li>• Develop returnable packing for overseas shipping</li> <li>• Cooperate in JICA group training programs</li> <li>• Implement overseas CO<sub>2</sub> reduction support projects</li> <li>• Perform environmental education at elementary schools in Southeast Asia, etc.</li> <li>• Engage in overseas tree-planting activities</li> </ul>
Other	
<ul style="list-style-type: none"> <li>• Engage in beautification and cleanup activities in rivers, beaches and road</li> <li>• Promote paperless operation through digitization</li> <li>• Receive RPF from other industries</li> <li>• Conduct composting of food waste from cafeterias</li> <li>• Create valuable resources by shredding confidential documents</li> <li>• Promote waste segregation at the office</li> <li>• Reduce paper use by duplex copying and microcopying</li> </ul>	<ul style="list-style-type: none"> <li>• Standardize waste-utilizing products (develop JIS standards)</li> <li>• Cooperate in treating disaster-related waste treatment</li> <li>• Reuse paper and cardboard boxes</li> <li>• Review the packing of procured parts</li> <li>• Communicate environment-related information on websites, etc.</li> <li>• Participate in environment-related events</li> <li>• Conduct segregated collection of PET bottles</li> </ul>

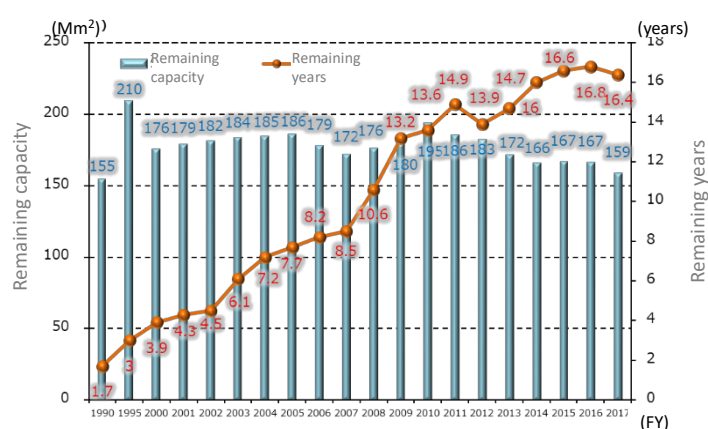
### **3. Challenges to be addressed in the near future for establishing a Sound Material-**

## Cycle Society

### (1) Potential for reducing final disposal volumes of industrial waste

As aforementioned, efforts by individual industries have led to the achievement of reductions in the final disposal volume of industrial waste by approximately 93.0% relative to the fiscal 1990 level. As a result, the years of remaining capacity at final disposal sites improved from 1.7 years in fiscal 1990 to 16.4 years in 2017 (see Figure 3).

**Figure 3. Trends in the years of remaining capacity at final disposal sites for industrial waste**

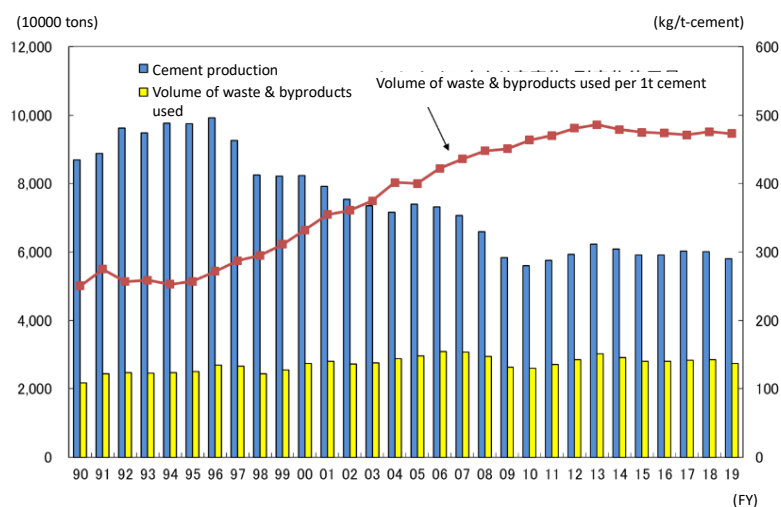


<Source: Ministry of the Environment>

However, in recent years, the potential for reducing final disposal volumes of industrial waste is nearing its limits and the rate of reduction is slowing down. Some industries have already achieved recycling rates close to 100% for industrial waste in their resource circulation efforts and some industries embrace wastes that are difficult to recycle. Further reductions would require a consideration of other factors, including increased energy consumption caused by recycling. Moreover, we must also pay attention to the potential drivers of increases in final disposal volumes of various industrial waste, including potential increases in construction works for disaster prevention and reduction and aging infrastructure.

Furthermore, in the cement industry, which contributes to the reduction of final waste disposal by utilizing waste and byproducts from other industries in cement production, the volume of waste and byproducts accepted by the cement industry has remained stagnant in recent years (see Figure 4.).

**Figure 4. Trends in the utilization of waste and byproducts in the cement industry**



<Source: Japan Cement Association>

## (2) Challenges to be addressed in the near future

The promotion of measures towards a sound material-cycle society has become increasingly important not only in Japan, with limited domestic resource availability, but also worldwide, as growing resource constraints are forecasted on a global scale due to increased population and economic growth.

Japan has been very successful in its endeavors, with the enactment of various recycling laws, such as the Basic Act on Establishing a Sound Material-Cycle Society, supported by active public cooperation, as well as the efforts of stakeholders, including the national government, local governments, the business community and non-profit organizations.

Internationally, there is growing interest in a transition from the conventional linear economy characterized by mass production, mass consumption and mass disposal to a circular economy. This approach seeks to achieve economic growth by integrating the entire cycle of procurement, feedstock input, production/distribution, consumption/use, and collection/recycling into our socioeconomic activities and effectively utilizing resources, thus creating new businesses. It follows the same path as the approach that Japan has taken to date toward achieving a sound material-cycle society.

Furthermore, with marine plastic litter issues receiving increased attention in Japan and overseas, at the G20 Summit, which was chaired by Japan in June 2019, governments reached agreement on the G20 Implementation Framework for Actions on Marine Plastics Litter and shared the Osaka Blue Ocean Vision under the leadership of

the Japanese Government. These documents do not prohibit the use of particular plastic products; instead, they acknowledge the social importance of plastic and set out a life cycle approach that encourages the smart use of plastics and controlling the outflow of plastic waste into the ocean.

Marine plastic litter issues are global issues that need to be resolved by promoting the 3Rs by securing the proper treatment of waste, preventing the outflow of waste plastics into the oceans and avoiding to the maximum extent possible their landfilling. Acknowledging the above, Japan can contribute to solving global plastic resource circulation issues by engaging in international cooperation, drawing upon its outstanding efforts, including the data, technologies and knowhow accumulated through its experiences to date, and contributing to proper waste treatment and the promotion of the 3Rs in developing countries.

On the other hand, given the recent implementation and strengthening of import restrictions on plastic waste in China and other emerging countries, plastic resource circulation has become a global challenge. Affected by these import restrictions, Japan is also faced with the increased domestic distribution of waste plastics, which are overloading relevant facilities<sup>3</sup>. In the follow-up survey results for this fiscal year, some relevant industries reported that because recycling business operators have stopped fee-based acceptance of waste, reduced the amount of waste accepted, or raised waste treatment fees, industries had no choice but to increase final disposal volumes of industrial waste. Japan is challenged with the urgent need to re-establish its plastic resource circulation system.

Under these circumstances, with a view to address various new challenges, Keidanren has decided to continue this Plan in fiscal 2021 and beyond and promote voluntary approaches taken by the business community toward building a sound material-cycle society. Pursuing transition to a circular economy, the business community will engage in proactive and voluntary efforts that will lead to the creation and promotion of innovation and enhanced competitiveness, while enhancing their industry-specific reduction targets and industrial-specific plastic-related targets with a view to improving the quality of resource circulation, in addition to continuing their efforts to reduce final disposal volumes of industrial waste. (For details, see “Policy for the Voluntary Action Plan for Establishing a Sound Material-Cycle Society from Fiscal 2021”)

To this end, roles must be appropriately shared among not only the business community but also various actors, including national and local governments, business operators, NPOs and citizens. It is important that each actor fulfills its role in partnership

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<sup>3</sup> For details, see Ministry of the Environment website: <https://www.env.go.jp/press/106088.html>

with other actors. In particular, in light of the fact that the further promotion of the 3Rs approaching its limits under current technology levels and legal system, it is essential that the Government improves and reviews the administration of the regulatory framework and offers policy support (see Appendix 1 “Main requests from individual industries to the national and local governments”).

Guided by the basic principle of “delivering on the SDGs through the Realization of Society 5.0.,” Keidanren will continue to engage in a wide range of innovations, including not only technological innovations, such as developing new feasible 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 issues in performing business operations.

**Main requests from individual industries to the national and local governments**  
**(from the “Industry-specific Report”)**

[Electric power]

- Promotion of circular use through the committed handling of fly ash (JIS ash) so that it is not deemed “waste.”

[Gas]

- Increased reuse of excavated soil as backfill in excavations of community roads and small-scale piping construction

[Iron and steel]

- Early formulation of concrete measures by the government to increase the volume of collected waste plastics
- Fundamental review of tender system, including the policy that prioritizes material recycling

[Electric cable and wire]

- Measures that facilitate access to information on waste treatment and recycling business operators overseas

[Rubber]

- Abolishment of notification system for taking waste beyond prefectural borders and introduction of an industrial waste collection and transport permit effective nationwide
- Unification of measures taken by individual prefectures in response to notifications
- Promotion of acceptance of industrial waste at municipal solid waste treatment facilities

[Flat glass]

- Development and revision of laws for glass-to-glass recycling of used glass

[Cement]

- Unification of application formats for permits for industrial waste treatment
- Revision of recycling permit system from a heat recovery perspective
- Resolution of impediments to transporting waste across wide areas in order to build a nationwide recycling network at the national level.
- Provision in the Ordinance for Enforcement that if in the event of a disaster, the debris from the disaster exceeds the capacity of municipal facilities and the local government requests treatment at facilities outside the prefecture, treatment of the



“debris” is not limited to “crushing” but can include “incineration / calcination.”

- Exemption of reporting changes in “5% shareholders” for fund management purposes in industrial waste collection/trade and treatment businesses
- Establishment of waste plastic energy recovery as a recycling method
- Revision of plastic containers and packaging recycling guidelines
- Streamlining of procedures for preliminary consultation on receiving waste from other prefecture

[Chemical]

- Deregulation related to promoting recycling under the Waste Management and Public Cleansing Act (issuance of control manifest, commissioning to collection and transport contractors, administrative reporting, issuing permits for wide-area recycling facilities)
- Promotion of use of liquid slag in public works

[Pharmaceuticals]

- Introduction of subsidies for installing waste treatment facilities and waste utilization facilities
- Support for waste plastic recycling operators
- Support across the supply chains to promote the development of industrial waste recycling technologies
- Support in finding operators that are ready to receive waste plastics
- Subsidies are required for the reduction of final disposal volumes, which entail increased costs

[Pulp and paper]

- Revision of regulations on receiving industrial waste from other prefectures

[Electrical and electronics]

- Wider target scope of subsidies and increased subsidy amounts for installing inhouse treatment facilities
- Subsidies for activities related to segregated waste disposal
- Subsidies for the introduction of high-efficiency waste treatment facilities by waste treatment contractors
- Consideration of preferential treatment, such as tax incentives and subsidies, for the utilization of recycled resources
- Reduction of burdens and mitigating the obligation to make best efforts related to confirming the treatment status in commissioned waste treatment
- Penalization of breach of law and proactive promotion of awareness-raising and educational activities
- Strengthened control over illegal dumping and waste treatment
- Relaxing of various regulations for the promotion of plastic waste treatment

- Abolishment and mitigation of regulations on receiving waste: and streamlining and acceleration of procedures
- Further deregulation including extending special provisions for waste treatment arrangements between parent companies and subsidiaries to those between group subsidiaries
- Promotion of support for increased recycling of components related to products, packaging and transport
- Establishment of a system for local government-led collection of valuables regionally generated (from industrial parks with small-scale business establishments)

[Automobiles]

- Support for the development of recycling technologies for CFRP waste
- Deregulation of the Waste Management and Public Cleansing Law to enable recycling operators of industrial waste to handle municipal solid waste, provided the same goods will be recycled, under the wide-area permit system

[Auto parts]

- Early establishment of a domestic resource recycling scheme for waste plastics
- Integration of requests from local governments, ministries and agencies, and trade organizations to investigate waste management and treatment
- Streamlining double regulation by national and local waste-related laws
- Support and measures for the increased use of recycled resources and measures to increase demand for products made from recycled resources
- Deregulation for efficient waste treatment including group companies from other prefectures

[Rolling stock]

- Subsidies for PCB waste treatment and updating equipment; and extension of deadline for treatment

[Shipbuilding]

- Categorization of commercial municipal solid waste (paper waste, wood waste, kitchen waste, etc.) from factories as industrial waste

[Flour]

- Improving the environment for recycling commercial municipal solid waste

[Milk and dairy products]

- Expansion of special provisions under the Waste Management and Public Cleansing Act (transport permits, etc.)

[Soft drinks]

- Enhance public awareness among consumers regarding how to appropriately treat containers and packaging after use
- Communication of marine plastic litter issues so that accurate information will reach

consumers

[Construction]

- Understanding the recycling status of intermediate waste treatment operators
- Concentrated management of electronic data on waste treatment
- Assessment of “market value” when determining whether something fits the definition of “waste”

[Printing]

- Given import restrictions on waste plastics, increased domestic capacity of waste plastic treatment, grants and subsidies to build treatment facilities, and deregulation
- Collaboration with the government through campaigns to reduce wastefulness and loss, in order not to dispose of unnoticed goods that are still functional as defective goods
- Grants for the use of recycled products
- Government support for development and further deployment of technologies for transition to biodegradable films, biomass plastic, recycled plastic and paper
- Communication on “marine plastic litter issues” by the national and local governments that plastic itself is not evil

[Housing]

- (Tentative name) Establishment of a New Lifestyle Point System
- Securing a grant budget for ZEH and system operations in line with the actual situation

[Trade]

- Policies that encourage the increased lifespan of products with large carbon stocks
- Policies that encourage the use of thermal insulation material using materials with large carbon stocks
- Provision of incentives for companies and retailers that are engaged in the reduction of single-use plastics and deployment of biomass plastics
- Exemption from the Waste Management and Public Cleansing Act when commissioning the transport of collected waste PET bottles to designated recycling facilities
- Stricter regulations on plastic recycling and waste reduction
- Exemption/mitigation of recycling fees payable when trading in household appliances for a given period of time

[Railway]

- Identification and coordination of local differences in waste segregation and collection schemes

## **Background of the Voluntary Action Plan for Establishing a Sound Material-Cycle Society**

### **1. Formulating the Voluntary Action Plan on the Environment (Section on Waste Disposal Measures) and setting up an economy-wide target (first target).**

In April 1991, Keidanren compiled the Keidanren Global Environment Charter in which it declared that it would promote voluntary and active efforts for environmental conservation. Based on this Charter, in 1997, Keidanren formulated the Voluntary Action Plan on the Environment to address waste disposal issues with the participation of 35 industries and incorporated industry-specific quantitative targets and concrete measures for the achievement of targets. Keidanren has followed up on the progress achieved in each industry every fiscal year thenceforth.

In December 1999, it set up a target covering the entire business community to enhance voluntary industrial efforts: 75% below the fiscal 1990 performance level of final disposal volume of industrial waste in fiscal 2010 (First Target)

### **2. Upgrading to “Section on the Establishment of a Sound Material-Cycle Society” and renewing the economy-wide target (March 2007)**

The business community continued to achieve its economy-wide fiscal 2010 target set up in 1999 for four consecutive years from fiscal 2002 to fiscal 2005 prior to the target year. Therefore, in March 2007, Keidanren revised the Voluntary Action Plan on the Environment (Section on Waste Disposal Measures) to the Voluntary Action Plan on the Environment (Section on the Establishment of a Sound Material-Cycle Society), which aimed to promote a wide range of efforts reaching beyond waste disposal measures toward a sound material-cycle society. This was accompanied by a renewal of targets:

#### **(1) Reviewing the economy-wide target (reduction target for final disposal volume of industrial waste)**

The economy-wide target was renewed to: 86% below the fiscal 1990 performance level of final disposal volume of industrial waste in fiscal 2010 (Second Target). Keidanren decided to continue to call for reductions in the final disposal volume of industrial waste in each industry, setting up the abovementioned target for the entire business community and engage in efforts to further promote the 3Rs.

#### **(2) Setting up industry-specific targets**

Each industry newly set up individual targets using indicators other than the final disposal volume of industrial waste, further enhancing voluntary approaches to the establishment of a sound material-cycle society. Industry-specific targets include improved recycling rates, reduced waste generation and increased use of waste from other industrial processes.

**3. Formulating the post-fiscal 2010 Voluntary Action Plan on the Environment**  
**(Section on the Establishment of a Sound Material-Cycle Society)**  
**(December 2010)**

The second target for reducing final disposal volumes of industrial waste had established fiscal 2010 as its “target fiscal year.” In December 2010, for the continued voluntary and active promotion of the 3Rs beyond fiscal 2010, Keidanren formulated a renewed Plan embracing the two following pillars and scheduled follow-up surveys: 1) setting up the Third Target for reductions in the final disposal volume of industrial waste across the entire business community with fiscal 2015 as the target year: 65% below the fiscal 2000 performance level of final disposal volume of industrial waste in fiscal 2015 (third target); and 2) establishing industry-specific targets accommodating industrial features.

**4. Formulating the post-fiscal 2015 Voluntary Action Plan for Establishing a Sound Material-Cycle Society (March 2016)**

Welcoming the “target fiscal year” for the Third Target in March 2016, with a view to continuing voluntary and active promotion of the 3Rs, Keidanren formulated a new post-fiscal 2015 Plan, which would be subject to annual follow-up surveys. The new targets are provided below (see Attachment 2 for details):

**(1) Fourth target for economy-wide reductions in final disposal volume of industrial waste**

Aim to reduce by fiscal 2020, the final disposal volume of industrial waste appropriately treated with consideration of the achievement of a low-carbon society by around 70% from the actual performance level in fiscal 2000.

**(2) Enhancing industry-specific targets to improve quality of resource circulation**

**5. Setting up industry-specific plastic-related targets (April 2019)**

From April 2019, organizations and companies participating in the Keidanren Voluntary Action Plan for Establishing a Sound Material-Cycle Society considered 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.

## **Formulating the Voluntary Action Plan for Establishing a Sound Material-Cycle Society for fiscal years beyond 2015 (March 2016)**

March 15, 2016  
Keidanren (Japan Business Federation)

### **1. Continuing and renaming the Voluntary Action Plan on the Environment**

The Keidanren Voluntary Action Plan on the Environment (Section on the Establishment of a Sound Material-Cycle Society) has endeavored to meet the economy-wide target to "reduce the final disposal volume of industrial waste in fiscal 2015 by 65% from the fiscal 2000 performance level" (third target) with the participation of 41 industries.

Given the need for ongoing efforts toward establishing a sound material-cycle society, the business community will engage in voluntary efforts beyond fiscal 2015 and seek to communicate industrial efforts to the public at large by continuing the voluntary approach under a renewed name: the Voluntary Action Plan for Establishing a Sound Material-Cycle Society\*.

\* Since 1997, the Keidanren Voluntary Action Plan on the Environment comprised the Section on Global Warming Measures and the Section on the Establishment of a Sound Material-Cycle Society. Given the reorganization of the Section on Global Warming Measures into the Keidanren Commitment to a Low Carbon Society in January 2013, the Section on the Establishment of a Sound Material-Cycle Society will also change its name.

### **2. Outline of post-2015 Voluntary Action Plan**

(1) Economy-wide target for continued efforts to reduce final disposal volume of industrial waste

- ① The Voluntary Action Plan set up an economy-wide target to reduce the final disposal volume of industrial waste. The target was renewed three times in order to pursue higher targets and as a result, the final disposal volume in fiscal 2014 marked a reduction of 73% from the fiscal 2000 level (91% reduction from the fiscal 1990 level). Through such efforts, the Plan has contributed to improving the pressing situation regarding the availability of final disposal sites that had challenged Japan in the 1990s (the years of remaining industrial waste final disposal capacity increased from just two years in the 1990s to approximately 14 years in fiscal 2012).
- ② In recent years, efforts by business operators to further reductions in the final disposal volume of industrial waste have been approaching their limits; and therefore the pace of reductions has slowed down. It has been pointed out that with the Tokyo Olympics and Paralympics Games to be hosted in Japan, the final disposal volume of industrial waste is likely to increase.

- ③ Amid such circumstances, the Japanese business community has set up the following economy-wide target under the idea that it “will not increase the final disposal amount of industrial waste above the current level” to continue to engage in reduction efforts.

Aim 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\*

- \* Some industries point out that further reductions in the final disposal volume may increase energy use and in turn cause regression in the achievement of a low-carbon society or increase waste requiring final disposal as a result of tightened environmental regulations. Under such restrictions, it was decided that it should be indicated that efforts to reduce final disposal volume would be continued with consideration of reducing environmental burden by providing for “the final disposal volume of industrial waste appropriately treated with consideration of the achievement of a low-carbon society.”
- \* In case of large changes in the socioeconomic situation, the target will be reviewed as required after fiscal 2016.

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

- ① Given their differences in industrial characteristics and circumstances, industries are quite varied in their approaches, including the 3Rs, toward establishing a sound material-cycle society; and therefore it is difficult to determine an economy-wide target other than reductions in final disposal volume. Therefore, under the Keidanren Voluntary Action Plan on the Environment, industrial organizations have set up “industry-specific targets” since fiscal 2006 to voluntarily engage in establishing a sound material-cycle society.

In the medium- to long-term, amid global constraints on resource availability, Japan, with very limited natural resources, is particularly challenged with resource issues in its endeavors to achieve sustainable socioeconomic development. We need to promote measures focused on the quality of resource circulation for the efficient use of limited resources. A few examples of such measures are curbing the consumption of natural resources and reducing environmental burden.

- ② Therefore, in the post-fiscal 2015 Voluntary Action Plan, we will set up appropriate industry-specific targets accommodating industrial characteristics and circumstances, in addition to the final disposal volume target. We will consider shifting to quantitative targets aiming to improve the quality of resource circulation, to the furthest extent possible. When it is difficult to set up a qualitative target, we will set up qualitative targets that will serve the purpose of improving the material cycle and report the progress achieved in the annual *Industry-specific Report*.
- ③ Industries have set up individual targets as indicated in the appendix (omitted) to improve the quality of resource circulation. Some examples are: pursuing added-value through the use of byproducts generated in the manufacturing process as raw

materials, promoting the use of high-performance recycling facilities with high recycling rates and waste reduction rates, and reducing the amount of industrial waste generated by reducing construction material input at the planning stage.

- ④ Some industries have yet to determine an industry-specific target. We are determined to present a clearer view of our concept of improving the quality of resource circulation and continue our endeavors to enhance industry-specific targets that will serve this purpose.