

Voluntary Action Plan for the Promotion of 3R in Containers and Packaging 2010 Follow-up Report

Liaison Committee of Associations Promoting 3R

Glass Bottle Recycling Promoter Association
The Council for PET Bottle Recycling
Paper Packaging Recycling Council
Plastic Packaging Recycling Council
Japan Steel Can Recycling Association
Japan Aluminum Can Recycling Association
Japan Recycling Council for Beverage Cartons
Corrugated Board Recycling Association



Voluntary Action Plan Follow-up Report: An Overview

I. FY2009 performance of business-sector 3R promotion

- Reduce: Reduction has progressed steadily with many containers.
- Reuse: Survey and research on returnable systems were conducted.
- Recycle: Although the FY2010 targets have been achieved for some containers and packaging, we will continue our efforts to achieve all the targets.

II. Efforts for partnership among the actors

- Joint efforts of the 8 associations
 - Hosting self-designed networking events
Forum, seminar, 3R leader exchange
 - Joint participation in various exhibitions
 - Making appeals on recycling of containers and packaging with
Advertising Council Japan (former Japan Advertising Council)
- Individual efforts based on common themes (PR and research)

Liaison Committee of Associations Promoting 3R

**Deliberation process on the revision
of the Container/Packaging Recycling Law**

Business-sector
roles intensified

Closer partnership
among the actors

Liaison Committee of Associations Promoting 3R
launched: December 2005



**Voluntary Action Plan for the Promotion of
3R (FY2006 - 2010)
Announced March 28, 2006**

I. Business-sector Voluntary Action Plan for 3R Promotion

FY2010 targets

Reduce

リデュース

- Quantitative reductions by weight reduction and thinning (numerical targets)
- Promote rational packaging
- Develop refillable/rechargeable containers

Reuse

リユース

- Research and study on returnable systems

Recycle

リサイクル

- Keep/improve recycling, recovery and cullet utilization ratios
- Develop collapsible containers/packaging
- PR on rinsing and sorted discharge
- R&D on volume reduction machines
- Stop the use of hard-to-recycle labels and develop easy-to-recycle labeling
- Reconsider the use of composite materials
- Study and spread self-collection activities

II. Efforts for partnership among the actors

Through PR to consumers and participation/implementation of various research and studies, we make efforts to contribute to a stronger partnership with **consumers, municipalities and the state**

Joint efforts of the
8 associations

Public outreach for 3R promotion on waste C&P

- Organize forums
- Hold seminars
- Improved information dissemination such as the mutual linking of individual association websites and the use of common pages

Individual efforts based
on common themes

- Information service/promotion (including shared use of on-going individual association efforts)
 - Cooperate in exhibitions at environment fairs
 - Sponsor, support and participate in events and seminars organized by municipal governments, NPOs, schools, etc. for 3R promotion and awareness-raising
 - Prepare joint posters for 3R promotion
- Research and studies
 - Study sophistication and efficiency improvements for sorted collection and separate storage
 - Cooperate in pilot projects for improved sorted collection

Business-sector 3R promotion FY2009 performance: Reduce

Reduce

リデュース

- Quantitative reductions by weight reduction and thinning (numerical targets)
- Promote rational packaging
- Develop refillable/rechargeable containers

Reduce

- Cited as the priority policy goal in the Basic Law for a Sound Material-Cycle Society from the perspective of protecting the Earth's resources
- The Liaison Committee members are working to make C&P lighter in weight, thinner and more rational

Reduction has progressed steadily with many containers

Reduce: Quantitative reductions by weight reduction and thinning (numerical targets)

| Material | FY2010 target (from FY2004) | FY2008 actual (Reference) | FY2009 actual |
|--------------------------|---|---|---|
| Glass bottles | Reduce the average weight per bottle by 1.5% | Average weight per bottle reduced by 1.4% | Average weight per bottle reduced by 1.8% Reference: The additional total weight reduction was 1,472 tons (6 types and 16 items) |
| PET bottles | For each mainline size and usage, reduce the weight per bottle by 3% | In 13 out of 15 mainline sizes and usages, the weight per bottle was reduced by 0.1 - 11% | In 13 out of 15 types, the weight per bottle was reduced by 0.3-15% . The 3% reduction target was achieved for 8 types. |
| Paper Packaging | 2% reduction | 1.3% reduction | 11.4% reduction |
| Plastic Packaging | 3% reduction | 4.4% reduction | 6.4% reduction (From this fiscal year, the reduction is expressed as a percentage) |

Reduce: Quantitative reduction by weight reduction and thinning (numerical targets)

| Material | FY2010 target (from FY2004) | FY2008 actual (Reference) | FY2009 actual |
|--|---|--|--|
| Steel cans | Reduce the average weight per can by 2% | Average weight per can reduced by 2.0% | Average weight per can reduced by 3.4% |
| Aluminum cans | Reduce the average weight per can by 1% | Average weight per can reduced by 0.8% | Average weight per can reduced by 2.1% |
| Beverage cartons | 1% weight reduction on average | Keeping the status quo | Keeping the status quo |
| We are at the final conformation stage for making the paper thinner in cooperation with overseas corrugated board manufacturers. | | | |
| Corrugated board | 1% weight reduction per 1 m ² | Weight reduced by 0.9% per 1 m ² | Average weight reduced by 1.4% per 1 m ² |

Reduce: Weight reduction and thinning; the case of PET bottles

Case 2. Weight reduction of specified PET bottles in Japan

Progress of reduction in major 4 types

- (1) Heat-resistant 2-liter PET **For high-temperature bottling**

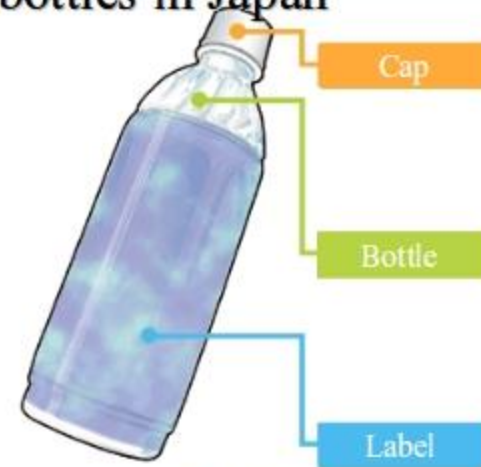
Weight already reduced by **26%** in the 20 years to 2004
4.1% reduction since 2004

- (2) Heat-resistant 500-ml PET

Weight already reduced by **19%** in 8 years to 2004
2.8% reduction since 2004

- (3) Sterile 2-liter PET **For room-temperature sterile bottling**
13.4% reduction since 2004

- (4) Sterile 500-ml PET
15% reduction since 2004



**POLY
ETHYLENE
TEREPHTHALATE**

Business-sector 3R promotion FY2009 performance : Reuse

Reuse リユース

● Research and study on returnable systems

Glass bottles

● Implementing a Model Project

The Glass Bottle Recycling Promoter Association conducted the reuse project for private brand sake targeting about 400 shops in cooperation with Japanese-style pub chains as a FY 2009 Local Energy Saving Reuse Model Project under the Ministry of the Environment (MOE).

● Conducting Seminars

Seminars were held in cooperation with major mass retailers and the Bottle Merchant Federation, on topics including the handling of returnable products in mass retail markets and possible systems for collecting empty bottles.

Business-sector 3R promotion FY2009 performance : Reuse

PET bottles

- The Council for PET Bottle Recycling participated in the “Research Meetings on Circulative Use of PET Bottles, etc. Including Reuse and Deposit Systems” organized by the MOE. At the Research Meetings, the following results were reported on the **hygiene and safety** of returnable PET bottles as well as a **comparison and evaluation of the environmental loads** of reused and one-way PET bottles using the life-cycle analysis (LCA) method.

1) Test on the erroneous use of returnable PET bottles by consumers

A PET bottle was cleaned after a contaminant was poured in it. The results indicated that **the contaminant adhered** to the inner surface of the PET bottle and **could not be removed**. When the PET bottle was filled with the drink, it was confirmed that the **contaminant dissolved** into the drink **at a rate above the allowable level**. Therefore, quality assurance using analysis devices which can detect misused bottles is essential.

2) Environmental loads (energy consumption and CO₂ emissions)

The **environmental loads** of **one-way** PET bottles used in **open systems (shop-front sales and others)** are **smaller** than returnable PET bottles. **Returnable** PET bottles have lower environmental loads only when they are used in a **closed system** (home delivery and others) over **short transportation distances** (less than 100 km) with **recovery ratios of 90% or more**.

Business-sector 3R promotion FY2009 performance: Recycle

Recycle リサイクル

- **Keep/improve recycling, recovery and cullet utilization ratios**
- **Develop collapsible containers/packaging**
- **PR on rinsing and sorted discharge**
- **R&D on volume reduction machines**
- **Stop the use of hard-to-recycle labels and develop easy-to-recycle labeling**
- **Reconsider the use of composite materials**
- **Study and spread self-collection activities**

Although the FY2010 targets have been achieved for some containers and packaging, we continue our efforts to achieve all targets.

Keep/improve recycling and recovery (numerical targets)

| Material | Index | FY2010 target | FY2007 actual (Reference) | FY2009 actual |
|--------------------|--|-------------------------------|------------------------------|--|
| Glass bottles | Recycling rate (Cullet utilization ratio) | over 70% (over 75%) | 65.0% (74.2%) | 68.0% (74.2%) |
| PET bottles | Recovery rate | over 75% | 77.9% | 77.5% |
| Paper packaging | Recovery rate | over 20% | 14.2% (19.5%) | Collected by government 13.9% (government + groups 19.1%) |
| Plastic packaging | Recovery rate | over 75% | 59.0% | 61.3% |

Keep/improve recycling and recovery (numerical targets)

| Material | Index | FY2010 target | FY2007 actual (Reference) | FY2009 actual |
|------------------|----------------|---------------------------------------|------------------------------|---------------|
| Steel cans | Recycling rate | over 85% | 88.5% | 89.1% |
| Aluminum cans | Recycling rate | over 90% (over 85%) | 87.3% | 93.4% |
| Beverage cartons | Recovery rate | over 50% | 42.6% | 43.5% |
| Corrugated board | Recovery rate | over 90% | 95.1% | 100.6% |

Sorted discharge and collection have progressed steadily

Recycling: Recyclability improvements

Develop collapsible C&P

- **Corrugated board:** The corrugated board industry investigated on specific examples of collapsible corrugated boards, and posted results on the website.
- **Paper packaging:** Efforts continued to develop perforated boxes for easy folding upon disposal, and composite C&P easily separable into single materials

Research and Development on Volume-Reducible Containers and Compound Materials, Other Efforts

- **Plastic containers and packaging:** Implemented efforts include (1) the development of volume-reducible containers, (2) R&D on easy-to-disassemble containers and (3) weight reduction by improving the properties of containers and packaging.
- **PET bottles:** A survey was conducted on colored bottles, etc. in order to ensure compliance with the voluntary design guidelines and non-conforming firms were alerted and asked to correct the problems. One firm replied that it will replace colored bottles with clear bottles for two products.

Recycling: Self-collection/materials identification labeling

Research and the spread of self-collection

- **Paper packaging:** Support was provided for the activities of the **Sake Pack Recycling Promotion Council** that collaborates with an NPO. The activities included the “eco” sake retailer activities that collect sake packs at shop fronts.
- **Steel cans:** In order to promote recycling through group collection, the “Group Collection Manual: Collaborative Group Collection” was published. The manual compiled the history and the current situation of group collection, implementation methods and implementation examples nationwide.
- **Aluminum and steel cans:** Awards for good practice are been given to collection groups, schools and others every year as a way to support and expand group collection.
- **Beverage cartons:** 3,855 carton return boxes were distributed to schools, municipalities, citizen groups, workplaces, firms, supermarkets, etc. (aggregate total 18,070 boxes). An on-line survey for effective collection was conducted in order to understand the current situation of household emissions.

Other identification labeling

- Improving implementation of identification labeling to containers and packaging
- Promoting DfE by developing and adopting voluntary design guidelines

Efforts for partnership among the actors

Joint efforts of the 8 associations

Efforts for partnership among the actors

Joint efforts
of the 8 associations

Public outreach for 3R promotion on waste C&P

- Organizing forums: The main targets were the relevant personnel in municipal governments.
- Holding seminars: with the aim of creating better systems together with various people and groups
- Improved information dissemination such as mutual linking of individual association websites and the use of common pages

**Concerted efforts began in FY2006 with
the formation of the 3R Promotion Liaison
Committee**

Efforts for partnership among the actors Joint efforts of the 8 associations

Measures implemented in FY2010

■ Forum

- C&P 3R Promotion Forum in Saitama (October 22-23, 2010)

■ Seminar

- C&P 3R Collaboration Consumers Seminar in Nagoya (to be held on February 5, 2011)

■ 3R Leader Exchange

- Exchange meetings and working group meetings were held over a three year period and a booklet “The Basics of Recycling” was created as a 3R awareness-raising material and distributed to municipalities nationwide in July 2010.

■ Joint participation in exhibitions

- Tokyo Pack 2010 (at Tokyo Big Sight on October 5-8, 2010)
- Eco-Products 2010 (at Tokyo Big Sight on December 9-11, 2010)

Report P.7

| Fiscal year | 2006 | 2007 | 2008 | 2009 | 2010 (including planned events) |
|--|---|---|---|--|--|
| 3R promotion forums | Yokohama City Aug. 29, 30 | Kobe City Sep. 19, 20 | Tokyo Oct. 6, 7 | Kyoto City Oct. 22, 23 | Saitama City Oct. 25, 26 |
| 3R seminars | Tokyo Feb. 28, 2007 | Kitakyushu City Oct. 19 Kawasaki City Feb. 18, 2008 | Kyoto City Mar. 7, 2009 | Sendai City Feb. 2, 2010 | Nagoya City Feb. 5, 2011 |
| 3R leader exchange meetings | | 4 exchange meetings | 5 exchange meetings | A 3R awareness-raising booklet "The Basics of Recycling" was created. | Completion and distribution of "The Basics of Recycling" |
| Joint participation in exhibitions | National Convention for the 3R Promotion Forum Oct. 19-21 Nagoya City Eco-Products fair Dec. 14-16 Tokyo | National Convention for the 3R Promotion Forum Oct. 17-19 Kitakyushu City Eco-Products fair Dec. 14-16 Tokyo | National Convention for the 3R Promotion Forum Oct. 24-26 Yamagata City Eco-Products fair Dec. 14-16 Tokyo | National Convention for the 3R Promotion Forum Oct. 16-18 Chiba City Eco-Products fair Dec. 14-16 Tokyo | Tokyo International Packaging Exhibition 2010 (Tokyo Pack 2010) Oct. 5-8 Tokyo Eco-Products fair Dec. 9-11 Tokyo |
| Awareness enhancement projects with the support of Advertising Council Japan | | | Hope that the word "waste" will disappear one day | Dreaming about recycling | Bye-bye for now |
| Press seminars and exchange meetings | | | | Influence of Media Reporting on Consumers' 3R Action Sep. 18 Tokyo | Discussion Meetings between the Press and 3R Promotion Groups Aug. 26 and Nov. 26 Tokyo |
| Others | Creation of joint posters Cross-linking organization websites | | Launch of a website | Implementation of the Consumers' Opinion Survey | Holding the research meetings on 3R systems for containers and packaging |

Distribution of “The Basics of Recycling” Nationwide

The Liaison Committee held exchange meetings with 10 consumer leaders over a three year period.

Based on the discussions, a booklet “The Basics of Recycling” was completed and distributed nationwide. It intends to provide the information needed for:

- “Various citizens”
- “Local community leaders” and
- “Relevant personnel at municipal governments.”



Participation in Exhibitions

The Liaison Committee, the Ministry of Economy, Trade and Industry (METI) and the MOE jointly participated in the exhibition at the Eco Packaging Pavilion in Tokyo Pack 2010, one of the largest packaging exhibitions in Asia (October 5-8, 2010).



Joint efforts

Awareness Enhancement with the Support of Advertising Council Japan

- 3R promotion and awareness enhancement advertisement was launched in FY2008, as a supportive project of Advertising Council Japan (former Japan Advertising Council)
- Media: TV spot CM (15 & 30 seconds), Radio spot CM (20 & 40 seconds) Newspaper ads (total 5 columns, 7 columns), Magazines
- Considered as an effective means of reaching out to those who are not related to waste problems in daily life. Such an approach can be only taken by business associations.

FY2008: We hope the word “garbage” would go away



Received Silver Award in the 49th Competition of Advertisements that Help Consumers, public advertisements block, TV advertisements

Joint efforts

Awareness Enhancement with the Support of Advertising Council Japan

FY 2009 Transit Advertising <Dreaming about Recycling>

夢をかなえた、空き缶たち。

空き缶のぼくとペットボトルさんの夢は、新幹線だ。...

リサイクルは、明日の夢につながっている。

3R推進団体連絡会

AC JAPAN

Joint efforts

2010 Awareness Enhancement with the Support of Advertising Council Japan

3R推進団体連絡会
<http://www.3r-japan.jp>
 3R推進団体連絡会

正しく分けて、 ちょっとだけ バイバイ。

たとえば、ペットボトル、
正しく分けて回収してもらえると、
新しい命を獲て、ワイシャツやネクタイ、エプロンなどに
生まれ変わることが出来ます。
資源ごみに「ずっとお別れ」するんじゃなくて、
ちょっとだけお別れです。

あれも、これも、資源ごみの生まれ変わり。リサイクルで、また会おうね。

| | | | | | | | | |
|--------|-------|------|------|-------|------|------|-------|------|
| | | | | | | | | |
| ペットボトル | ワイシャツ | ネクタイ | エプロン | ワイシャツ | ネクタイ | エプロン | ワイシャツ | ネクタイ |

※上記はイメージです。

国民の広告ネットワーク
AC JAPAN

他団体（NPO等）と「国民の広告ネットワーク」を共同で運営しています。
 ACジャパンは、この団体の活動を支援しています。

Future Efforts

Promoting 3R Measures by Each Organization

- Measures for steady resources recycling are to be promoted, toward the targeted fiscal year 2010

Efforts for partnership among the actors are to be continued and deepened further

- Forums, seminars and other joint efforts will continue to be held, for deepening partnership with consumers and municipalities

In Closing

**2010 is the first target year for the Liaison Committee's Voluntary Action Plan.
The Voluntary Action Plan for the next five years is currently being
formulated.**

**We will announce the new plan at the end of this fiscal year.
We greatly appreciate your continuous support and understanding for
the promotion of 3Rs.**

Thank you very much