

EXPO 2027 YOKOHAMA JAPAN

International Horticultural Expo 2027, Yokohama, Japan Resource Circulation Policy

Created in March 2025
Japan Association for the International Horticultural Expo 2027, Yokohama

Summary of the Resource Circulation Policy



- The Association formulated the “Resource Circulation Policy” in March 2025. The Policy stipulates policies for considering resource circulation initiatives and measures, as well as targets, in line with the Sustainability Strategy of EXPO 2027 YOKOHAMA JAPAN.
- The Policy aims at promoting GREEN Circular Architecture, setting a material use policy such as specifying the use of renewable plant resources, ensuring 3Rs and thorough sorting, and promoting other initiatives in line with the aspirations of GREEN×EXPO 2027 with an eye to future society.

Title	Summary
1 Policy for considering resource circulation initiatives	<ul style="list-style-type: none"> From the perspective of a circular economy, initiatives in line with the aspirations of GREEN×EXPO 2027 with an eye to future society, will be promoted, including the promotion of GREEN Circular Architecture.
2 Estimated amount of waste emissions (the Environmental Impact Statement, etc.)	<ul style="list-style-type: none"> The three main types of waste expected to be generated during the EXPO are combustible waste (33.1%), paper (17%), and food waste (14%), which together will account for approximately 64% of the total.
3 List of key resource circulation measures	<ul style="list-style-type: none"> In collaboration with exhibitors and businesses, etc. various measures will be implemented at each stage of the EXPO, including preparation, construction, operation, and removal.
4 Material use policy	<ul style="list-style-type: none"> Maximise the use of renewable plant resources and minimize the use of plastics. Based on Japanese laws and regulations, the basic principles of the 3Rs+Renewable, etc., materials that are easy to reduce, reuse and recycle (3Rs), renewable resources, and recycled materials will be used to the maximum extent possible.
5 Measures related to general commerce (food and beverage, product sales, etc.)	<ul style="list-style-type: none"> In collaboration with businesses, etc., measures to reduce plastics and food loss/waste will be implemented.
6 3Rs and thorough sorting of waste	<ul style="list-style-type: none"> In compliance with the laws and regulations of Japan, Kanagawa Prefecture, and Yokohama City, initiatives for 3Rs and thorough sorting will be implemented. Recycling stations for visitors will be set up, and their awareness of sorting will be raised with the cooperation of volunteers, etc.
7 Target recycling rates	<ul style="list-style-type: none"> The target recycling rate for waste paper, food, waste plastics, PET bottles, glass bottles, cans, and waste cooking oil will be set at 100%. The target recycling rate for the total waste will be set at 65%. Ways to reuse plants will be considered, such as by distributing flower seedlings and by promoting composting.

- **Promoting initiatives in line with the aspirations of GREEN×EXPO 2027 with an eye to future society, from the perspective of a circular economy.**
- **Promoting GREEN Circular Architecture and GX House (a reusable building service)** to reduce environmental impact, effectively use materials and encourage the active use of domestic timber.
- **The material use policy sets out to promote the use of renewable plant resources** (including wood materials, paper, vegetable oil and biomass) **to the maximum extent and to keep the use of plastics to the minimum**, in line with the purpose of EXPO2027 YOKOHAMA JAPAN.
- **Individual policies will also be set for food/beverage containers, cutlery, beverage containers, and product sales (containers and packaging).**
- **The draft sorting categories during the EXPO period** are as follows: **About 36 categories** for the Association and exhibitors, and **about nine categories** for visitors. **Recycling stations will be set up to ensure 3Rs and thorough sorting.**
- **For plants** closely related to the EXPO, consideration will be given to ideas for **distributing flower seedlings to visitors and their reuse in public facilities, after replanting. Composting will also be promoted from the perspective of natural circulation.**

International Horticultural Expo 2027, Yokohama, Japan

Resource Circulation Policy



- 1 Policy for considering resource circulation initiatives**
- 2 Estimated amount of waste emissions (the Environmental Impact Statement, etc.)**
- 3 List of key resource circulation measures**
- 4 Material use policy**
- 5 Measures related to general commerce (food and beverage, product sales, etc.)**
- 6 3Rs and thorough sorting of waste**
- 7 Target recycling rates**

[Introduction] The site plan centred around green infrastructure and natural circulation

- The EXPO aims to preserve and utilise the existing natural environment and biodiversity, and **promote a site plan centred around green infrastructure.**
- **In order to achieve a Nature Positive society, the EXPO will promote the circulation of resources in nature (natural circulation)** while also publicising green infrastructure and other initiatives.
- At the same time, **it is important to promote sustainability by facilitating the material cycle at the EXPO.**

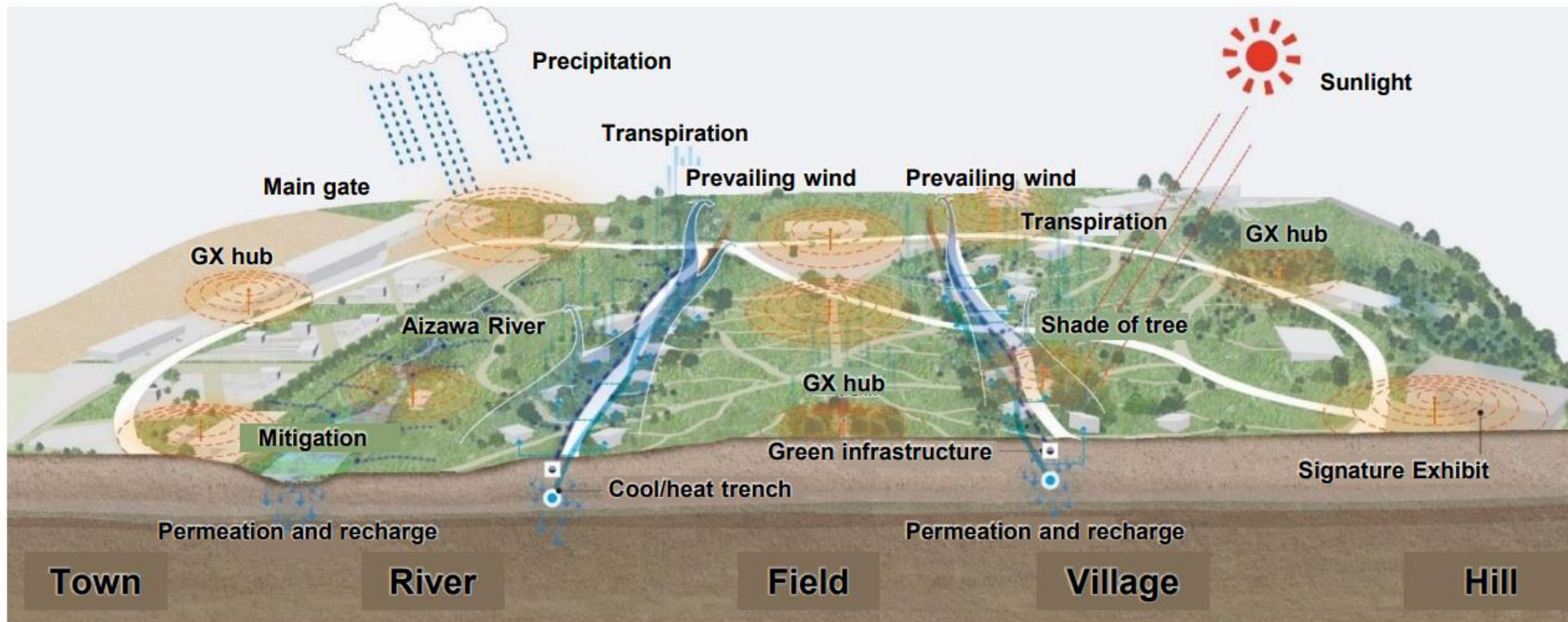


Image of implementation of green infrastructure

1 Policy for considering resource circulation initiatives

- **Promote initiatives in line with the aspirations of GREEN×EXPO 2027 with an eye to future society, by promoting GREEN Circular Architecture and GX House (a reusable building service), setting a material use policy such as specifying the use of renewable plant resources, ensuring 3Rs and thorough sorting, from the perspective of a circular economy.**
- **In accordance with the UN Guiding Principles on Business and Human Rights and the UN Global Compact and respecting other international norms,** the Association will promote initiatives for resource circulation.
- Initiatives will be promoted **in compliance with the laws and regulations** of Japan, Kanagawa Prefecture and Yokohama City and based on **the 3Rs and other priorities.**
- **In collaboration with** visitors, exhibitors, etc. businesses and **other stakeholders, various measures will be implemented at each stage of the EXPO, including preparation, construction, operation, and removal.**
- When discussing the initiatives, precedent cases of similar large-scale events will be referenced.
- The Association will continue to engage in detailed examinations based on the Resource Circulation Policy.

1 Transition to a circular economy

- Promote initiatives in line with the aspirations of GREEN×EXPO 2027 with an eye to future society, including promoting the 3Rs, defining the material use policy based on resource circulation, and minimising waste, from the perspective of a circular economy.

Limitation of a linear economy

Natural resources → Mass production → Mass consumption → Mass disposal

Large amounts of greenhouse gases are emitted throughout the lifecycle of a product from resource extraction to processing and disposal.

Resource depletion
Environmental impact of resource extraction

Environmental impact of disposal
(Marine plastics, hazardous substances)

Transition to a circular economy

Natural resources → Efficient production

- Environment-conscious design
- Use of recycled materials
- Reduce

Efficient use

- Achieving both high convenience and efficiency through reusing and sharing products, or promoting product-as-a service

Disposal ← Collection and recycling

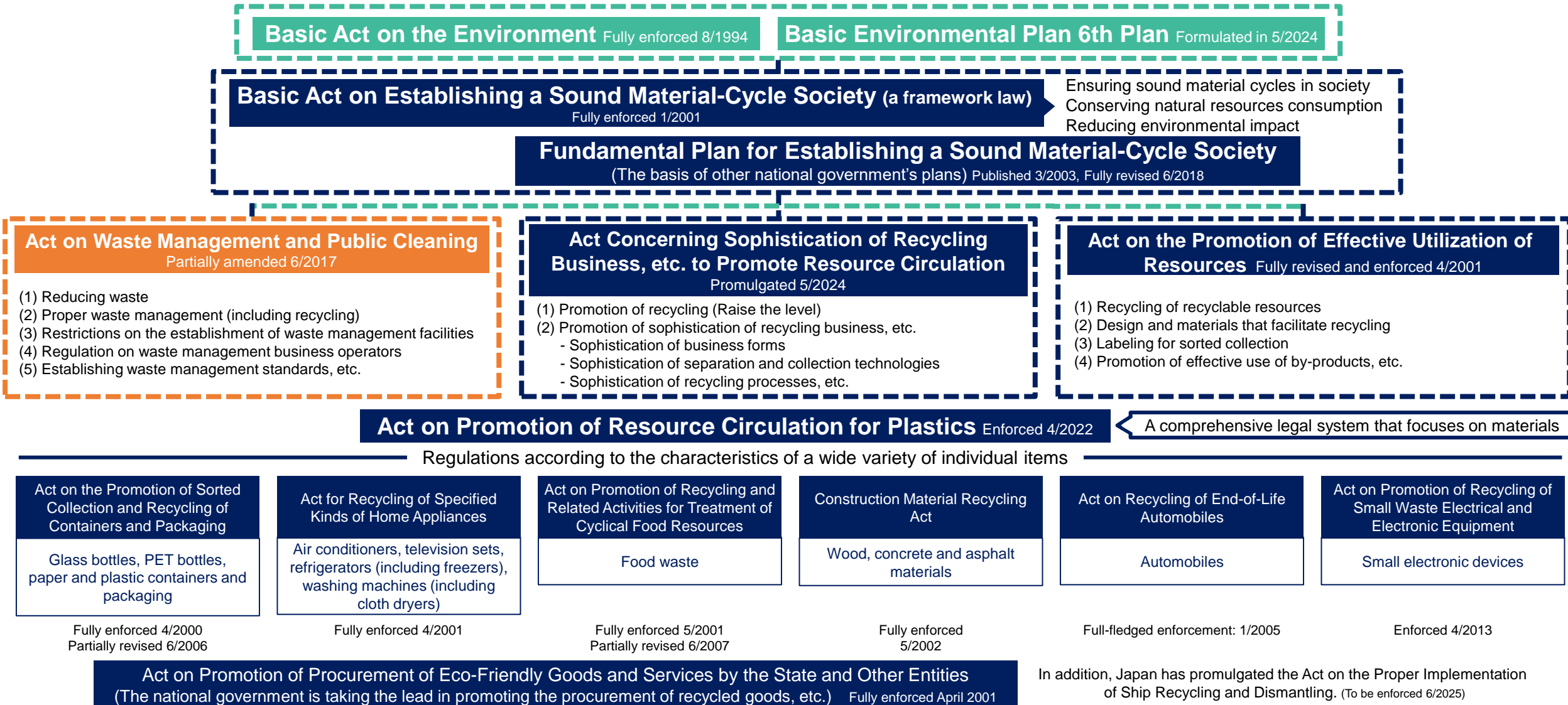
- Further promote collection
- Increase the supply of recycled materials and secure rare metals
- Technological innovation, quality improvement

Promotion of decarbonisation, enhancement of industrial competitiveness,
regional revitalisation, contribution to economic security

1 Legal framework of Japan for establishing a sound material-cycle society

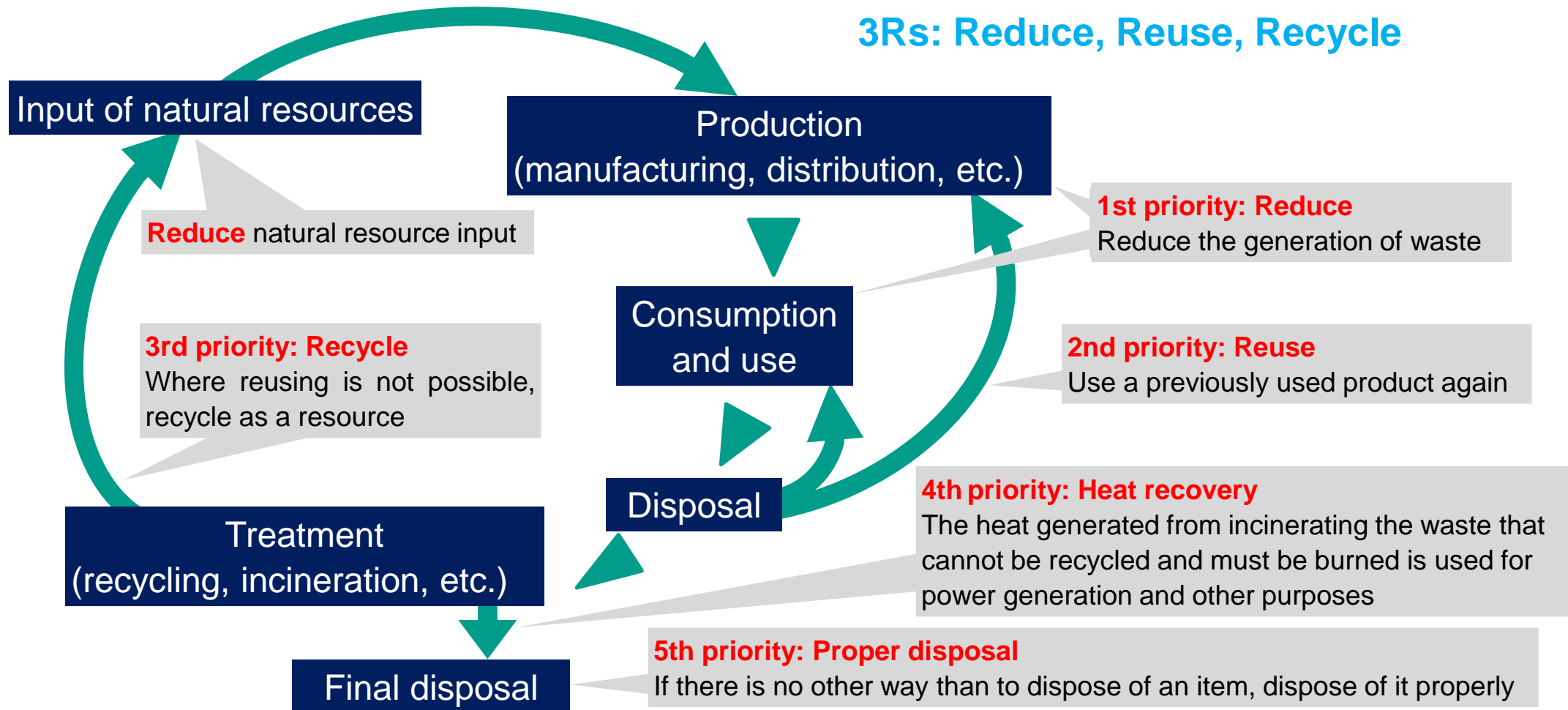


- **Compliance with the laws and regulations** of Japan, Kanagawa Prefecture and Yokohama City



1 Sound material-cycle society and priority order of 3Rs

- The top priority should be given to “reduce,” followed by “reuse” and then “recycle” when considering resource circulation initiatives.



1 [Innovative measure] Promotion of a circular economy through GREEN Circular Architecture

Temporary structures of GREEN×EXPO 2027 will be constructed with environmentally friendly **GREEN Circular Architecture**.

Architecture in harmony with the surrounding scenery

- Utilise *Kamiseya*'s natural environment conditions such as its terrain, riverine systems, existing trees, and prevailing wind patterns to create a coherent layout and direction in line with exhibitions and landscape, with a size and height that blend into the surroundings.
- Take an ingenious approach to build the roof, openings and foundation, etc. to actively incorporate the natural power of light, wind, water, and earth.
- Develop facilities that connect to a pleasant outdoor setting so that visitors can enjoy outdoor gardens (plants) that show different scenes each day as well as the changing seasons.

GREEN Circular Architecture

Architecture that coexists with plants

- Create a design that enable visitors to feel the materials, plants' energy, the value of plants that create oxygen in the air, and gain the feeling of well-being.
- Take a new look at the relationship between architecture and plants, between which a close connection and relationship have been built over the years in regional climates of Japan, and utilise modern technology to propose a new relationship between people, plants, and architecture.

Architecture that promotes circulation and connection

- Design architecture that makes it easy to conduct daily maintenance and future repair, and that can grow with the surrounding environment and functions, for example, by planning its subsequent use in advance.
- Select environmentally friendly materials and do not create waste. Especially when using wood materials, etc. produced in Japan, they should contribute to the circulation of forest resources by using them to the fullest as structural/ finishing materials, furniture, and energy, etc.

Venue with nature-based design and GREEN Circular Architecture

- Leverage the plant resources and culture of Japan, and provide an appealing venue with a vision to create a green society filled with flowers and greenery after the EXPO.
- Temporary structures in the site should be circular structures (reuse and recycle) based on **GREEN Circular Architecture** that facilitates the reduction of environmental impact and effective use of resources.
- For construction materials, actively use wood materials produced in Japan.
- Reduce the construction work carried out at the site by manufacturing parts in factories in advance. By doing so, the work load and construction period will be reduced.



Image of a wood-based prefabricated facility

2 [Overview] Estimated amount of waste emissions from the venue (the Environmental Impact Statement, etc.)

- The amount of waste discharged highest during **“removal (96.8%),”** followed by “the EXPO period (2.1%)” and “construction (1.1%).”
- The amount of disposal highest during **“the EXPO period (78.5%),”** followed by “removal (13.1%)” and “construction (8.3%).”

Emissions by stage	Period	Waste emissions (t)	Percentage	Disposal volume (t)	Percentage	Main waste items (amounts of waste emissions (t))
Construction	From October 2024 to March 2027	2,286	1.1%	259	8.3%	<ul style="list-style-type: none"> • Mixed waste (1,041) • Waste plastics (242) • Waste plaster board (230)
The EXPO period	From March to September 2027	4,334	2.1%	2,442	78.5%	<ul style="list-style-type: none"> • Combustible waste (1,436) • Cardboard and other waste paper (736) • Food waste (607)
Removal	From September 2027	201,146	96.8%	408	13.1%	<ul style="list-style-type: none"> • Concrete chunks (136,779) • Asphalt and concrete chunks (61,876) • Waste metal (1,362) • Mixed waste (690)
Total	-	207,766	100%	3,265	100%	-

2 [Construction & removal] Estimated amount of waste emissions from the venue (the Environmental Impact Statement, etc.)

- In percentage terms, “**mixed waste (45.6%),**” “**waste plastic (10.6%)**” and “**waste plasterboard (10.1%)**” are significant during construction, while “**concrete chunks (68%)**” and “**asphalt and concrete chunks (30.8%)**” are significant during removal.

Waste type		Construction				Removal				
		Waste emissions (t)	Percentage	[Reference] Recycling rate	Source	Waste emissions (t)	Percentage	[Reference] Recycling rate	Source	
Industrial waste	Concrete chunks	0	0%	100%	(1)	136,779	68%	100%	(1)	
	Asphalt and concrete chunks	0	0%	100%		61,876	30.8%	100%		
	Glass and ceramics	179	7.8%	87.2%	(2)	-	-	-	-	
	Waste plastics	242	10.6%	82.6%	(1)	59	0%	81.3%	(1)	
	Waste metal	99	43%	97.9%		1,362	0.7%	98%		
	Wood chips, construction wood waste	189	8.3%	98.8%	(2)	188	0.1%	100%		
	Paper scraps	113	4.9%	97.6%	(1)	2	0%	97.9%		
	Waste plaster board	230	10.1%	79.4%		181	0.1%	75%		
	Waste PVC pipes	-	-	-	-	9	0%	58.7%		
	Others	192	8.4%	95.5%	(3)	-	-	95.5%		
	Mixed waste	1,041	45.6%	87.4%	(1)	690	0.3%	53.5%		
Total	-	2,286	100%	(Disposal volume 259 t)	-	201,146	100%	(Disposal volume 408 t)		-

Reference: [Environmental Impact Statement for EXPO 2027 YOKOHAMA JAPAN](#), Yokohama City. The recycling rates are reference values obtained from the following statistics in the assessment statement.

(1) Results of the FY2018 Survey on Construction Byproducts, Ministry of Land, Infrastructure, Transport and Tourism, Japan, (2) Yokohama City Resources and Waste Recycling Bureau “7th Yokohama City Industrial Waste Disposal Guidance Plan FY2016 ▶ FY2020,” (3) Results of the FY2012 Survey on Construction Byproducts, Ministry of Land, Infrastructure, Transport and Tourism, Japan

2 [The EXPO period] Estimated amount of waste emissions from the venue (the Environmental Impact Statement, etc.)

- The three largest types of waste to be generated during the EXPO are **combustible waste (33.1%)**, **paper (17%)**, and **food waste (14%)**, which together account for approximately 64% of the total.

Waste type		Waste emissions (t)	Percentage	[Reference] Recycling rate	Sources for recycling rates
Municipal waste from business activities	Combustible waste	1,436	33.1%	0%	-
	Brochures, newspapers, flyers, copy paper, cardboard	736	17%	86.3%	Paper Recycling Promotion Center "FY2021 Report on the Survey of Office Paper Waste"
	Food waste	607	14%	31%	"FY2020 annual amount of food loss and waste generated and recycling rate of cyclical food resources," Ministry of Agriculture, Forestry and Fisheries
	Plant waste	43	1%	77.1%	-
	Non-combustible waste	86	2%	29.8%	Reference to annual report on environmental management plan of Yokohama City, Policy Division, Environmental Planning Bureau, Yokohama City Government
Industrial waste	Plastics and Styrofoam	478	11%	62%	FY2022 Report on the Survey on Generation and Treatment of Industrial Waste (FY2021 estimates), Industrial and Hazardous Waste Management Division, Environmental Regeneration and Material Cycles Bureau, Ministry of the Environment
	Plant trays and flowerpots	370	8.5%		
	PET bottles	251	5.8%	86%	Statistics from the Council for PET Bottle Recycling's website
	Glass bottles	246	5.7%	77%	FY2022 Report on the Survey on Generation and Treatment of Industrial Waste (FY2021 estimates), Industrial and Hazardous Waste Management Division, Environmental Regeneration and Material Cycles Bureau, Ministry of the Environment
	Cans for commercial use, aluminium cans, steel cans	36	0.8%	100%	FY2018 Study on Countermeasures for the Transboundary Movement of Waste and Report on the Survey on the Actual Conditions of the Circulation and Utilization of Waste Materials, Environmental Regeneration and Material Cycles Bureau, Ministry of the Environment
	Waste cooking oil	45	1%	95%	Material by the UCO JAPAN
Total	-	4,334	100%	(Disposal volume 2,442 t)	-

3 List of major new measures in connection with the formulation of the Resource Circulation Policy



- In connection with the formulation of the Resource Circulation Policy, the following **new measures are being considered.**

Classification	New measures
<p>Material use policy</p>	<ul style="list-style-type: none"> • The policy for using materials for the EXPO is to use renewable plant resources (including wood materials, paper, vegetable oil and biomass) to the maximum extent and to keep the use of plastics to the minimum • Based on Japanese laws and regulations, the circular economy concept and the 3Rs+Renewable principle, materials that are easy to reduce, reuse and recycle (3Rs), renewable resources (wood materials, paper and biomass), and recycled materials (recycled paper, recycled fibres) will be used to the maximum extent possible • Use of digital media will be promoted for productions, handouts and novelties to the greatest extent possible. Where the use of print media is necessary, recyclable resources and recycled materials will be used • Plastic, paper and cloth to be procured in large amounts, which are of great social interest, will be purchased in line with the policy • For food/beverage containers, cutlery, beverage containers, and product sales (containers and packaging), materials will be procured according to individual policies
<p>Measures related to general commerce (food and beverage, product sales, etc.)</p>	<ul style="list-style-type: none"> • Measures against plastics (use of reusable tableware, provision of an environment for using personal bottles, charging for plastic shopping bags) • Measures to reduce food waste (providing menus in reasonable portions, recycling food waste, etc.)
<p>3Rs and thorough sorting of waste</p>	<ul style="list-style-type: none"> • In compliance with the laws and regulations of Japan, Kanagawa Prefecture and Yokohama City, confirm required sorting and treating methods and meet such requirements • The 3Rs and thorough sorting initiatives will be implemented with reference to precedent cases of similar large-scale events. The draft waste sorting categories are about 36 for the Association and exhibitors and about 9 for visitors • In order to ensure 3Rs and thorough sorting of waste, as well as to improve operational efficiency, recycling stations for visitors will be established in the venue
<p>Target recycling rates</p>	<ul style="list-style-type: none"> • The target recycling rates for waste paper, food, waste plastics, PET bottles, glass bottles, cans, and waste cooking oil will be set at 100%. The target recycling rate for the total waste will be set at 65% • Ways to reuse plants will be considered, such as by distributing flower seedlings and by promoting composting

3 Key resource circulation measures for EXPO 2027 YOKOHAMA JAPAN (1/2)



- The following measures that have been considered thus far will also be steadily implemented.

Waste type	Measures for “reduce” and “reuse”	Measures for “recycle”
General provisions	<p>The following initiatives in the manufacturing and distribution of procured goods, etc. are described in the Code of Sustainable Procurement.</p> <ul style="list-style-type: none"> • Promotion of 3Rs + Renewable and circular economy in the manufacture, distribution and other processes for the procured goods, etc. (as mandatory efforts) • Reduction of containers and packaging and adoption of recycled materials and plant-derived materials (as mandatory efforts) • Contamination prevention, chemical substance control, and waste management (as mandatory measures) • Development of an Event Sustainability Management System (ESMS) (Acquire ISO20121 certification and operate the certified ESMS) • Reduce single-use items as much as possible and thoroughly implementing the 3Rs + Renewable. The remaining waste will be disposed of properly. • The amount of municipal and industrial waste generated, the amount recycled and the amount disposed of, as well as the amount of using compost, will be published on the Association's website, etc. • Raise awareness among visitors and exhibitors, etc., and reduce municipal waste as much as possible 	<ul style="list-style-type: none"> • A storage area for industrial waste will be set up on the construction site, and measures will be taken to prevent scattering and ensure sorted waste storage. By doing these, contribute to reusing and recycling of resources • Educating construction contractors about thorough waste sorting • Specified construction waste materials are sorted and recycled in accordance with the Construction Material Recycling Act • Sorting and recycling in accordance with the Act on Promotion of Resource Circulation for Plastics

3 Key resource circulation measures for EXPO 2027 YOKOHAMA JAPAN (2/2)



Waste type		Measures for “reduce” and “reuse”	Measures for “recycle”
Municipal waste	Food	<ul style="list-style-type: none"> Promotion of efforts by visitors and exhibitors, etc. to reduce food waste Provide menu items in amounts and sizes visitors can finish eating without effort 	-
	Plants	-	<ul style="list-style-type: none"> Plants will be composted as much as possible, except for items that need to be incinerated. The Association will use the compost, etc. at the EXPO
Industrial waste	Concrete chunks	-	<ul style="list-style-type: none"> Recycling rate of concrete chunks: 100%
	Plastics	<ul style="list-style-type: none"> Reduce plastic use by switching to renewable resources such as paper, using recyclable packaging, and using reusable tableware Reduction of single use containers such as plastic containers Promoting the reuse (return) of industrial waste such as plant trays and flowerpots The Code of Sustainable Procurement stipulates the reduction of plastic product use and mitigation of its contamination of the environment (as mandatory efforts) 	<ul style="list-style-type: none"> Recycling of plastics

4 [General policy] Material use policy (1/2)

- **The material use policy** for the main products that are expected to be used at EXPO 2027 YOKOHAMA JAPAN is as follows.
 - ✓ **In line with the purpose of EXPO2027 YOKOHAMA JAPAN, the use of renewable plant resources (including wood materials, paper, vegetable oil and biomass) should be promoted to the maximum extent and the use of plastics** for materials to be used for the EXPO, including for construction, exhibitions, food/beverage service and product sales, and operation, **kept to the minimum.**
 - ✓ Based on Japanese laws and regulations, **the circular economy concept and the 3Rs + Renewable principle, materials that are easy to reduce, reuse and recycle (3Rs), renewable resources (wood materials, paper and biomass), and recycled materials (recycled paper, recycled fibres) should be utilized to the maximum extent possible.**
 - ✓ **Use of digital media will be promoted** for productions, handouts and novelties **to the greatest extent possible.** Where the use of print media is necessary, **recyclable resources and recycled materials will be used.**
 - ✓ The Association and exhibitors, etc. **should comply with the Code of Sustainable Procurement** when procuring products and materials.

4 [General policy] Material use policy (2/2)

- **Plastics, paper and cloth to be procured in large amounts, which are of great social interest,** will be purchased as follows, with reference to precedent cases.
 - ✓ **Plastics**
 - (1) **Minimise the use of plastics and instead, use alternative materials that have a low environmental impact.**
 - (2) If the use of plastics is necessary, use **bioplastics and other plant-based materials** and recycle them.
 - ✓ **Paper materials**
 - (1) **Digital media should be used to the maximum extent possible** for productions, handouts and reference materials to **reduce the use of paper materials.**
 - (2) Promote **the replacement of plastic with paper** to facilitate recycling.
 - ✓ **Cloth**
 - (1) The cloth used for exhibits and uniforms **should be made from recycled materials and recyclable resources.**
 - (2) After use, the cloth will be **reused and recycled** in an appropriate manner.
- **Individual policies** will be developed for the following materials of high social interest, with reference to precedent cases, etc.
 - ✓ **Food/beverage containers and cutlery**
 - ✓ **Beverage containers**
 - ✓ **Product sales (containers and packaging)**

4 [Individual policy] 3Rs for food/beverage containers and cutlery

- Food and beverage businesses that provide full service, such as restaurants, **use reusable tableware and cutlery** made of wood, ceramic and metal in principle.
- When using single-use containers and cutlery for food trucks, to-go orders, etc., **the lower environmental impact and feasibility** of using paper, wood, bioplastic materials **will be considered**.
- In principle, single-use cutlery, wet wipes, etc. should be **provided to those who request them for a fee**.
- **Chopsticks should be reused** in principle. **If disposable chopsticks are provided**, they should be made from **domestic wood (mill ends, leftover wood, thinned wood) or bamboo**.

4 [Individual policy] 3Rs for beverage containers

- In addition to **encouraging people to bring their own bottles** into the venue, **water dispensers and washing machines will be installed throughout the venue** to help prevent heatstroke.
- Provide, at restaurants, **an environment in which beverages for to-go orders can be served in personal containers and facilities for allowing people to refill their personal bottles with drinking water.**
- Beverages sold from vending machines and stores are to be sold **in the following order of priority: paper carton/paper cup, can, PET bottle, and one-way glass bottle, based on the results of Japan's Life Cycle Assessment (LCA) and other factors.**
- From the perspective of heatstroke prevention, etc., the sale of PET bottles will also be permitted. However, **thorough sorting (including voluntary collection) and horizontal recycling (PET bottle to PET bottle) will be carried out in cooperation with relevant beverage manufacturers. Using recycled PET bottles, label-free packaging, and lighter materials** should be considered as ways to reduce environmental impact.

4 [Individual policy] 3Rs for product sales (containers and packaging)

- **Use of containers and packaging at retail stores should be limited to the minimum extent necessary, and paper containers and packaging should be used in principle.**
- **Plastic shopping bags and other bags (including non-plastic bags) will be charged for**, and in principle, visitors will be encouraged to bring and use their own eco-bags.
- In cases where plastic shopping bags need to be sold to avoid spillage, **bioplastic bags will be used** in accordance with the law, **taking into account environmental impact and feasibility, etc.**
- **Receipts will only be provided if requested.**

5 Measures related to general commerce (food and beverage, product sales, etc.)



Measures related to plastics

- **Measures related to tableware and beverage containers**
 - ✓ Introducing reusable tableware in food trucks
 - ✓ Introducing single-use, compostable cutlery
 - ✓ Creating an environment where people can use their own bottles at the venue
- **Plastic containers, packaging, giveaways, etc.**
 - ✓ Prohibition of free distribution of plastic bags and plastic shopping bags
 - ✓ Introduction of paper bags and other packaging made from alternative materials to plastic

Others

- ✓ Promotion of in-store decoration with recycling in mind

Measures related to food loss and waste, etc.

- **Measures to reduce food loss and waste**
 - ✓ Procurement of ingredients should be adjusted according to the projected number of visitors
 - ✓ Provide menu items in amounts and sizes visitors can finish eating
 - ✓ Implement sales measures for boxed lunches that are likely to go unsold, while ensuring food hygiene and quality control
 - ✓ Collaboration with food banks while ensuring quality and shelf life
- **Food waste recycling**
 - ✓ Recycling into compost, feed, etc.
 - ✓ Energy creation through methane fermentation and power generation, etc.
 - ✓ Building a food recycling loop in collaboration with food waste treatment contractors during the event period



6 [The EXPO period] Approaches to 3Rs and thorough sorting of waste

- **The following approach will be used to consider initiatives for 3R and thorough sorting** for the main waste items that are expected to be generated during the EXPO period.
 - ✓ In compliance with the laws and regulations of Japan, Kanagawa Prefecture and Yokohama City, confirm required sorting and treating methods and meet such requirements.
 - ✓ **3Rs and thorough sorting will be implemented with reference to precedent cases of similar large-scale events.**
 - ✓ **The draft sorting categories are subject to change** in the future, as they will be examined in more detail in light of factors such as coordination with waste disposal businesses, feasibility, and environmental impact.

6 [The EXPO period] Waste sorting categories (draft)

Waste type	Sorting category ^{1, 2}	The Association, exhibitors	Visitors
Combustible waste	Combustible waste	●	●
	Exhibits, etc. of Official Participants ^{*3}	●	-
Used paper	Cardboard	●	●
	Newspapers	●	
	Magazines (booklets and brochures)	●	
	Copy paper	●	●
	Mixed paper	●	
	Paper cartons and paper cups (including silver paper)	●	
	Confidential documents	●	
Food	Food	●	●
	Leftover water	●	●
Waste plastics	Plastics (not dirty)	●	●
	Plastics (dirty)	●	
	Styrofoam (not dirty)	●	
	PET bottles (Labels and caps are sorted into plastic)	●	●
Beverage bottles	Transparent bottles	●	●
	Coloured bottles	●	
Glass and ceramic waste	Glass and ceramic waste	●	-

Waste type	Sorting category	The Association, exhibitors	Visitors
Waste metal	Beverage cans	●	●
	Cans for professional use	●	-
	Spray cans	●	-
	Metal (Mixed ferrous and non-ferrous metal)	●	-
Small home appliances	Small home appliances	●	-
Batteries	Alkaline and manganese batteries	●	-
	Rechargeable batteries	●	-
Waste oil	Cooking oil	●	-
	Lubricant	●	-
	Engine oil	●	-
	Other waste oil	●	-
Sludge	Sludge	●	-
Plants	Plants	●	-
Woodchips	Wood materials	●	-
	Wood pallets	●	-
Old cloth	Old cloth	●	-
Industrial waste subject to special control	Industrial waste subject to special control (Medical waste, infectious waste)	●	-
Mixed waste	Mixed waste (including bulk waste)	●	-
	-	36 categories	9 categories

*1: The draft sorting categories reflect the current examination process and are subject to change depending on adjustments with waste disposal companies contracted by the Association and feasibility, etc.

*2: Products subject to the individual recycling acts shall be properly disposed of by the generator. Returnable bottles, etc. are handled by exhibitors, etc. who sell them

*3: In accordance with the International Exposition Convention, exhibits, etc. of Official Participants must be destroyed



6 [The EXPO period] Policy for operating recycling stations for visitors

- In order to ensure 3Rs and thorough sorting of waste, as well as to improve operational efficiency, **recycling stations for visitors will be established** in the venue.
- **To promote and raise awareness of waste sorting among visitors, volunteers, etc. will be present at each station to engage in waste sorting and awareness-raising.**
- In consideration of the diverse range of visitors, including foreigners and people with disabilities, **multilingual signage, pictograms (pictorial symbols) and illustrations that take accessibility into account will be used.**
- **Materials that are easy to reduce, reuse and recycle (3Rs), recyclable resources, and recycled materials should be used** for trash cans and trash bags in accordance with the material use policy.

7 [The EXPO period] Approach to target recycling rates

- **The following approach** has been taken to consider **the target recycling rates** during the EXPO period.
 - ✓ The recycling rates for EXPO 2027 YOKOHAMA JAPAN **are calculated in the same way as for the Tokyo 2020 Olympic and Paralympic Games.**
 - ✓ Considering the target and actual recycling rates for major items at **similar large-scale events, etc.**, as well as feasibility, **the target rate for similar items has been set at 100%.**
 - ✓ **The target recycling rate for the total waste will be set at 65%**, which is higher than that of EXPO 2025 Osaka, Kansai, Japan or that of Tokyo 2020 Olympic and Paralympic Games.
 - ✓ **For plants** closely related to EXPO 2027, consideration will be given to ideas of **distributing flower seedlings to visitors and their reuse in public facilities, after replanting. Composting will also be promoted from the perspective of natural circulation.**



7 [The EXPO period] Method of calculating recycling rate

- The recycling rates for EXPO 2027 YOKOHAMA JAPAN will be calculated **in the same way as for the Tokyo 2020 Olympic and Paralympic Games** as follows. **The recycling rate will be based on the weight of waste dealt with by the Association.**
- The Association will also **encourage exhibitors, etc. to make efforts to recycle waste** that they are responsible for, and we will **consider requiring them to report the amount of waste and the waste disposal method to the Association.**

Method of calculating recycling rates for the EXPO

Weight of waste generated during the operation of the EXPO, which was reused or recycled

Weight of waste generated during the operation of the EXPO

[Reference] The method used to calculate recycling rates for Tokyo 2020

Calculation method	The rate of reuse and recycling of waste generated during operation *The calculation is based on a weight when the waste is discharged. $\left(\frac{\text{Weight of waste generated during operation, which was reused or recycled}}{\text{Weight of waste generated during operation}} \right)$
Denominator (Boundary)	Amount of waste discharged from competition venues, training sites, the athletes' village, IBC/MPC, etc. (Includes both municipal and industrial waste) (The boundary that the Organising Committee can grasp)
Numerator	Amount of items reused or recycled <ul style="list-style-type: none"> • Reuse: Leasing, rental, buy-back agreement Sale, gift, reuse, etc. Reuse after repair or processing • Recycling: Recycling of resources (Metal, paper, PET bottles, etc.)

7 [The EXPO period] Major target recycling rates

Waste type		EXPO 2027 YOKOHAMA JAPAN	Reference events*1			Government of Japan
		Target	Expo 2025 Osaka, Kansai, Japan	Tokyo 2020 Olympic and Paralympic Games		
			Target	Target	Result	Target
Total waste		65%	56.7%	65%	62%	-
Municipal waste from business activities	Combustible waste*2	(Heat recovery)	1.9%*3	-	(Heat recovery)	-
	Used paper	100%	100%	-	100%	-
	Food	100%	100%	-	100%	FY2024: 50%
Industrial waste	Waste plastics*4	100%	100%	-	100%	FY2035: 100%
	PET bottles	100%	100%	-	100%	-
	Glass bottles	100%	100%	-	100%	-
	Cans	100%	100%	-	100%	-
	Waste cooking oil	100%	100%	-	100%	-

*1: The sorting categories for waste differ in part between this Expo and the reference events

*2: Amounts of Official Participants' exhibits, etc. that must be destroyed in accordance with the Convention relating to International Exhibitions are excluded from the calculation of recycling rates

*3: The recycling rate for Expo 2025 Osaka, Kansai, Japan is calculated based on the amount of compostable tableware, disposable chopsticks, wooden pallets, disposable diapers, etc. that would normally be disposed of as combustible waste

*4: The target value includes thermal recycling, as is the case with the target value for Japan

References: [Sustainability Post-Games Report](#), The Tokyo Organising Committee of the Olympic and Paralympic Games; [Expo 2025 Green Vision \(2024 Edition\)](#), Japan Association for the 2025 World Exposition [Targets for the Recycling of Food Waste, etc.](#), Ministry of Agriculture, Forestry and Fisheries, Japan (quoting the target values for the food service industry); [Resource Circulation Strategy for Plastics](#), Ministry of the Environment, Japan

7 Promotion of recycling of plants

- In accordance with the Convention relating to International Exhibitions, exhibits, etc. of Official Participants, including plants, must be destroyed.
- In addition, some plants that are required to be disposed of under laws and regulations (including customs-related laws, the Plant Protection Act, the Act on the Prevention of Adverse Ecological Impacts Caused by Designated Invasive Alien Species) must be incinerated or otherwise disposed of.



- Other than the above, we **aim to promote the circulation of plants.**
- Specifically, **as to plants after replanting, distributing floor seedlings to visitors and their reuse in public facilities** will be considered.
- **We will promote composting all of other plants from the perspective of natural circulation.**