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## SUSTAINABLE MATERIALS AND WASTE MANAGEMENT



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# SUSTAINABLE USE OF RESOURCES

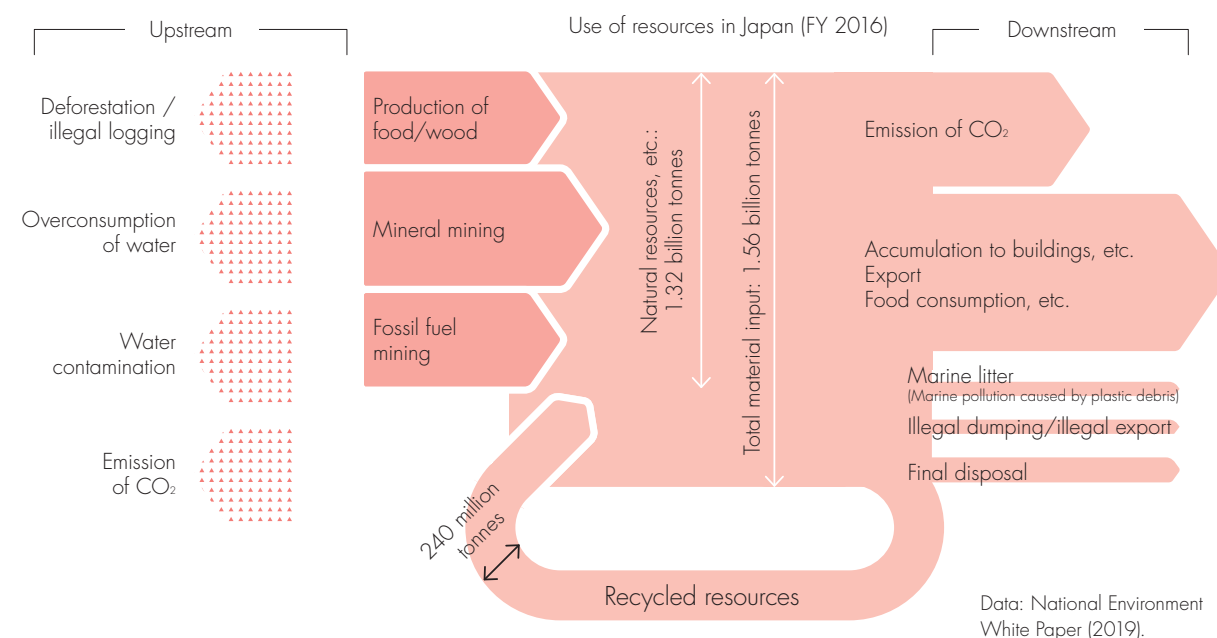
The consumption of resources is expected to increase along with the economic development of emerging countries. The Sustainable Development Goals (SDGs) adopted by the United Nations in September 2015 set forth Goal 12: Ensure sustainable consumption and production patterns.

In FY 2016 Japan consumed 1.32 billion tonnes of natural resources, almost half of which were imported. To compound the situation, these resources were not effectively recycled, with only 240 million tonnes of them being recycled.

## ▶ Tokyo Has Great Influence on the Use of Resources in Japan

As Tokyo is host to approximately 40% of the head offices of corporations in Japan consuming a significant amount of resources, it has to fulfill its responsibility for reducing environmental load on a global scale. TMG is working on a variety of initiatives to accomplish two missions by 2030, which are shown in the Sustainable Materials and Waste Management Plan (March 2016): conversion to the sustainable use of resources that promotes reduction of resource loss, use of eco materials, and further cyclic use of waste, and handing over a better city environment to future generations.

### Environmental impacts in the upstream and downstream sides of resource use



## ▶ Reduction of Resource Loss

In order to promote sustainable resource use through waste reduction and recycling, citizens as the generators of waste have to act responsibly in their day-to-day routines choosing products that help to reduce waste, while businesses are required to proactively reduce waste.

### Reduction of food waste

In developed countries, enormous quantities of food are wasted. Food waste in Japan is estimated at approx. 6.43 million tonnes (2016), which is equivalent to the amount of food consumed by Tokyo's residents in one year.

Food waste in Tokyo is estimated as approx. 270,000 tonnes (2012). In Tokyo, most of this food waste is generated by the food service industry and households.

In order to establish the Tokyo Style Reducing Food Waste Program so as to halve food waste by 2030, TMG will conduct a survey on the current status of food waste, hold stakeholder meetings in which we discuss ways to avoid food waste, and encourage consumers to take action.



In Japan, households, businesses, and local governments are encouraged to stock long life food, such as crackers and packaged cooked rice so as to be prepared for disasters such as big earthquakes. One of the food waste habits specific to Japan is the disposal of such food stock when it needs to be replaced. TMG continues to promote disaster preparedness and food waste avoidance by utilizing disaster food that needs to be replaced before it reaches its best-by date.

### Disposing of the disposable lifestyle

Tokyo will make efforts to reduce the amount of containers/packaging waste in liaison with surrounding local governments and decrease the use of single-use products in cooperation with municipalities and businesses, by promoting the use of reusable containers at large-sized events held in Tokyo.



Reusable cups test-marketed at a game of the Japan Rugby Top League 2017-2018

## ▶ Promotion of Further Cyclic Use of Waste

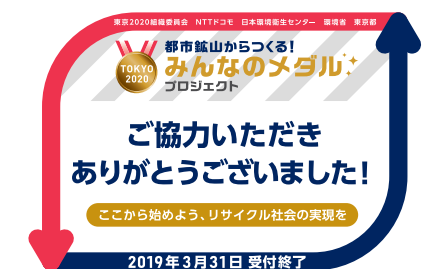
TMG will deal with a more sophisticated cyclic use of waste that contains recyclable resources.

### Recycling of Consumer Electronics

Tokyo 2020 Organising Committee conducted the Medal Project to manufacture the medals awarded at the Games from small WEEEs. The collection finished in March 2019 as sufficient metal for manufacturing the medals had been gathered.

In line with its aim for a more sustainable society, TMG was keen to cooperate with this project, and placed a collection box in its office building.

TMG will leave the small WEEEs' collection system as a legacy, and further promote the recycling of them.



2019年3月31日 受付終了 Medal Project

## ▶ Promoting the Use of Eco Materials

### Recycling of incinerator ash

In Tokyo, almost all unrecyclable waste is incinerated and some of the ash then recycled as raw material for Eco-Cement, etc.

© Tokyo Tama Regional Association for Waste Management and Resource Recycling



Eco-Cement plant, which produces cement from incinerator ash



Eco-Cement



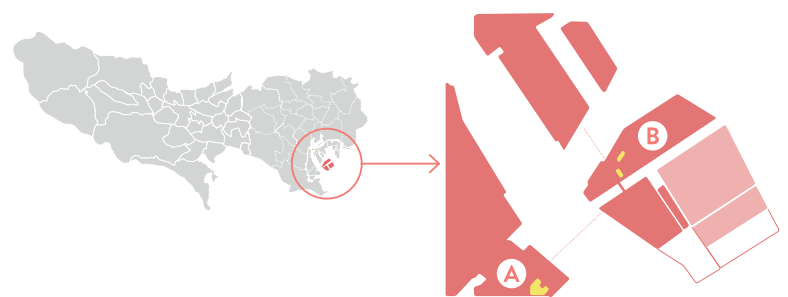
Used as construction materials

### Promotion of construction byproducts recycling

The Construction Recycling Law obligates construction companies to separate materials when demolishing buildings and recycle special construction materials (concrete, asphalt concrete, wood). To give an example, concrete is recycled not only for roadbed materials but also for making new concrete aggregates.

### Super Eco Town Project

TMG has implemented a Tokyo Super Eco Town Project with companies who have advanced and reliable technologies such as making animal feed from food waste, recycling construction mixed waste, and so on. The project will help extend the useful lifespan of landfill areas. The Super Eco Town is located in the waterfront area.



**A** Construction mixed waste recycling facility (2 plants)

**A** E-waste recycling facility (2 plants)

**A** Facility converting food waste to feed (2 plants)

**A** Facility generating biogas power from food waste (1 plant)

**A** Buried waste recycling facility (2 plants)

**A** Waste carpet tile recycling facility (1 plant)

**A** Debris/construction sludge recycling facility (1 plant)

**B** PCB waste treatment facility (1 plant)

**B** Gasification and melting power plant (1 plant)

## ▶ Measures for Plastics

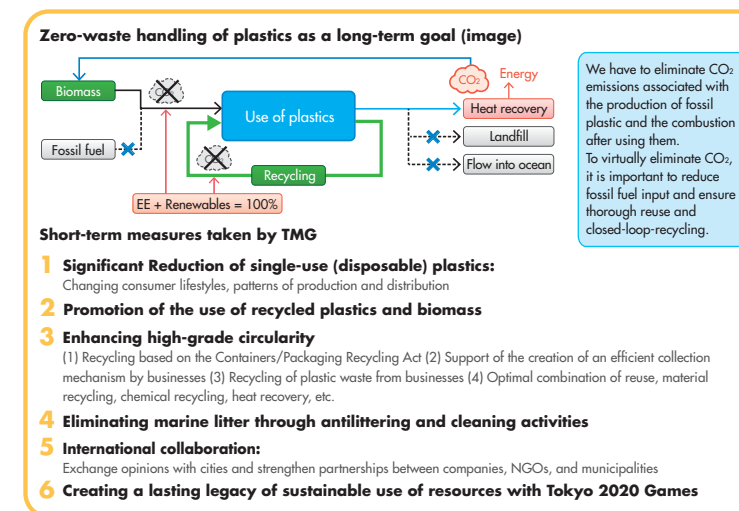
With their excellent properties, such as lightness and non-corrosiveness, plastics are widely used in our lives. However, CO<sub>2</sub> is emitted at all stages in the handling of plastic products, from manufacturing to disposal. There are concerns that plastic products flow into the ocean and adversely affect the marine ecosystem.



Reviewing how we deal with plastics has become a global challenge.

### Efforts to Reduce Single-Use Plastics

In April 2019, the Tokyo Waste Management Council proposed the long-term goals for sustainable use of plastics and short-term policies which should be taken by TMG, including reducing single-use plastics, increasing the use of recycled resin and enhancing high-grade recycling. In particular, it is important to reduce single-use plastics, such as plastic shopping bags, straws, and plastic bottles. Therefore, we will raise public awareness in cooperation with universities, office buildings, etc.



### Recycling Plastic Waste in Japan

Plastic waste has been exported from developed countries including Japan to Asian countries such as China. In some export destinations, however, problematic situations have developed, including environmental pollution caused by improper disposal. Import of plastic waste is now more strictly regulated in China and other countries. In the future, the export of plastic waste will be restricted on a global basis with the revision of the Basel Convention.

As a result, the disposal costs of plastic waste have increased in Japan as has the amount stored.

To prevent improper disposal at home and abroad and promote appropriate recycling in Japan, TMG has begun a survey on the latest trends in the plastic waste market and encourages information sharing among related businesses and ensures information dissemination to waste-discharging businesses.



### Marine litter: Plastic waste on the streets is carried into the Pacific Ocean, to end up as marine litter

It is said that each year 4.8 to 12.7 million tonnes of plastics wash into the ocean from rivers etc. around the world and the weight of plastics in the ocean will exceed that of fish by 2050. TMG works to raise public awareness on curbing the generation of marine litter, using leaflets and a short educational film created with children in Tokyo and New York. URL: <https://tokyodouga.jp/en/10000001425.html>



You can watch the film here

