### Oita City, Oita Prefecture

# Initiative to Promote 4R in Oita



During the period of rapid economic growth in Japan, there were serious problems with pollution due to improper disposal of waste, which led to the enactment of Japan's first specific law (Note 2) concerning the responsibility for waste management in 1970.

This law clearly defined the roles of citizens and government in regards to the generation of waste in Japan, regulating that citizens must obey government rules when generating waste, and making cooperating with authorities an obligation.

Issues in Oita

This city is carrying out the promotion of 4R in its attempts to create a recycling-based society (Note 3) that cares for the environment, so that they can leave a healthy and rich Oita to the next generation.

# **Project Aims**

- 1. Change citizens' awareness concerning rubbish
- 2. Create a recycling-based society

# **Project Outline**

- (1) Initiatives to promote the limiting and avoidance of rubbish generation
  - Reduce kitchen waste and food waste (Note 4) through the "Eat Well and Reduce Kitchen Waste" three-step campaign.
  - Limit the generation of household rubbish through a system of charging for household waste
- (2) Initiatives to promote the reuse of resources
  - Promote the reuse of bicycles and furniture through "Free Lottery" events
  - Promote awareness among children through "Kaekko Bazaars"





- (3) Initiatives to promote the recycling of resources
  - Education activities to promote the correct way to separate household rubbish so it becomes common knowledge
  - Promote citizen-led rubbish separation through campaign projects for the collection of valuables by groups
  - Promote recycling of electrical appliances through collection projects for used small electrical appliances
- (4) Initiatives for increased awareness
  - Educational activities promoting 4R at all sorts of events
  - Comprehensive environmental education for children



#### **Strengths and Innovations**

This city's initiative to promote 4R involves avoiding generating rubbish, limiting rubbish output,

promoting reuse, and promoting recycling. It aims to create a recycling-based society by carrying out this cycle of initiatives. In particular, it is proactively promoting initiatives that increase citizens' interest and awareness, which plays a major part in the generation of rubbish.

To help avoid the generation of rubbish and limit the amount put out, they have developed the "Eat Well and Reduce Kitchen Waste" three-step campaign. This involves carrying out the three steps of using ingredients completely, not letting food go to waste, and properly draining out all the water before throwing out rubbish, in an attempt to reduce the kitchen waste that households generate daily and decrease food waste.

For this campaign, the city engaged in a public relations campaign using television commercials and city brochures to make the initiative well-known among citizens and to encourage their participation.

They also introduced a charging system for household waste, which involved putting certain items specified by the city into rubbish bags that had to be paid for, when household rubbish was thrown out.

As payment for this system was separate to taxes, and the costs arose when the rubbish was put out, it was hoped that it would increase citizens desire to separate and reduce their rubbish. Additionally, as the amount it costs changes depending on the amount of rubbish put out, it is possible to try and make the costs fair depending on the rubbish produced.

Regarding the reuse of resources, bicycles and furniture that had once been thrown out as rubbish are collected and fixed up as refurbished bicycles and refurbished furniture, and then handed over to citizens through free lottery events.

There were also Kaekko Bazaars for children, which are events where children can swap toys that they don't use anymore with other children, or children can help out in the running of the shop to earn toys.

These schemes were attempts to cultivate a consciousness across many generations that people should treasure things and treat them with care.

In regards to the recycling of rubbish that becomes resources, the most fundamental and important initiative in terms of reducing the costs of waste disposal and optimizing recycling efficiency is the separation of household rubbish by citizens.

Therefore, Oita City is working to provide guidance concerning separation of rubbish and provide a complete range of separation materials for citizens so that rubbish from households is properly separated and properly put out.

There are also projects to promote citizen-led recycling of resources, such as a way for citizens to voluntarily gather up valuable resources and sell them off to junk dealers, as opposed to having household rubbish collected by the authorities. These activities are being supported by the government through compensation payments and the provision of collection equipment.

For small electrical appliances like mobile phones and digital cameras, specialist collection boxes are set up in public facilities, in an attempt to enhance recycling.

Furthermore, the small electrical appliances that are collected will be recycled as medals, including for a project that uses the metal extracted from these devices to make medals for 2020 Tokyo Olympic and Paralympic Games (Note 5).

For the educational side of the 4R promotion, various events were held in the city to obtain the understanding and cooperation of the citizens, with educational booth displays, quizzes about separating household rubbish and explanations of the various projects that were being carried out.

Additionally, at Oita's Eco Life Plaza, which is the information transmission base for 4R, there is an exhibit and events like flea markets that help educate people of a wide age range.

There are also a number of initiatives for the children who will be responsible for Oita in the future, so that they have an awareness of the environment from a young age, such as picture story shows for preschool children, and providing opportunities for primary school children to learn about recycling through hands-on environmental studies.

# **Results of the Project**

The city achieved a reduction of 8,467 tons of non-recyclables (Note 6) among that which is put out by households (reduction of 9.4%) in 2017 compared to 2013.

In addition, the amount of recyclable plastic rubbish previously thrown out with non-recyclables increased to 785 tons (an increase of 24%) in 2017 compared to 2013.

These results lead to the conclusion that citizens have a growing interest in rubbish separation, properly putting rubbish out, and the recycling of resources, leading to them increasing their efforts to do so.

#### Problems, and Responses

In 2017, among the rubbish put out by households for disposal by incineration, about 16.7% was paper and plastics that could be recycled, so there is a need from here on for even more initiatives to promote the correct separation and disposal of rubbish.

Also, a common issue for each municipality relating to proper waste disposal and final disposal sites, is that in recent years there has been increased attention on marine pollution caused by plastic rubbish, which has highlighted that initiatives must continue to be developed at the level of each municipality.

From here on, they hope to solve more issues with even more 4R initiatives and try to create a recycling-based society, as well as promote limits to the amount of rubbish produced and the recycling of resources on a global scale, by striving to contribute to international cooperation.

### **Future Developments**

As rubbish is still not always separated correctly, and it has been seen that there are still differences among the age groups in terms of their awareness of the importance of separation, from here on there will be more promotion of initiatives to to provide 4R education to a wide range of age groups including children, students, and families that are raising children, as well as ways to try and get them to continually put these ideas into practice.

#### **Reference URL**

http://www.city.oita.oita.jp/o143/kurashi/gomi/1478 248312226.html

# Contact

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# Definitions of Technical Terms etc.

(Note 1) 4R: The four Rs from the words Refuse (avoid generating rubbish), Reduce (limit the amount of

rubbish put out), Reuse (reuse resources) and Recycle (recycle resources). It is the theme of the plan formulated by this city to help create a recycling-based society, and it has developed into a project.

(Note 2) The Waste Disposal and Cleaning Law: A law enacted in 1970 that was the first in Japan to clearly specify responsibilities for waste management

(Note 3) Recycling-based society: A society that uses resources as efficiently as possible, as well as reproducing, reusing, and recycling them in a sustainable way.

(Note 4) Food waste: The portion of food among food rubbish that is made up of unsold food products and left-over food from meals that could still be eaten without any problems. As the amount of food waste in Japan in FY 2015 rose to around 6,460 kilotons per year, there have been initiatives developed throughout the country in recent years to reduce food waste.

(Note 5) Making medals from urban mines! "Everyone's Medal" Project: Project being conducted by The Tokyo Organizing Committee of the Olympic and Paralympic Games (Tokyo 2020 Organizing Committee) involving the use of small electrical appliances such as mobile phones that have been discarded from households in Japan to make the medals that will be used in the Tokyo 2020 Olympics.

(Note 6) Non-recyclables: In Oita City, this refers to burnable rubbish (kitchen waste, vegetation, unclean paper, etc.) and non-burnable rubbish (scrap iron, glass, porcelain, etc.)