

Extension of Expertise of the City with the Least Solid Waste in Japan abroad

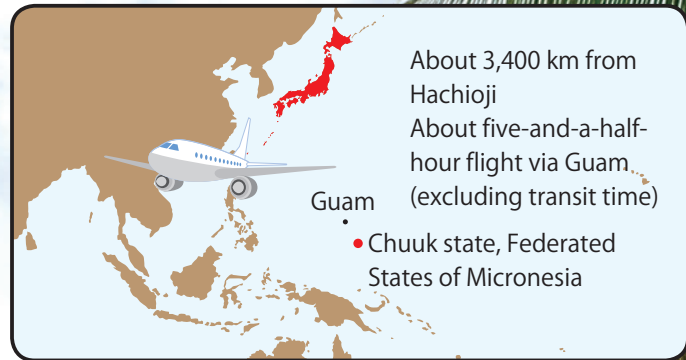


Hachioji City implemented a project to reduce waste-related problems in Chuuk State, the Federated States of Micronesia, under the Partnership Program of Japan International Cooperation Agency (JICA). Hachioji is the first city in the Tama Area of Tokyo to implement such a project. The amount of solid waste generated per person per day in the city is the smallest in Japan (among the cities with a population of 500,000 or more; data source: Ministry of the Environment in its report on waste for FY 2017 (update)). The city used its expertise in waste reduction activities in assisting the awareness-raising activities to reduce the use of disposable plastic bags, one of the major sources of plastic pollution in the ocean, improvement of waste collection service and cleaning activities in Micronesia. In addition, the lectures on this project given in response to requests from elementary and junior high schools in the city are contributing to the promotion of the education for international understanding at school.

Assisting Solution of Waste Problems in Ch

The Federated States of Micronesia

The country comprises 607 small islands dotting the Pacific Ocean just north of the equator. It comprises four states and has a population of around 110,000 people. Untouched nature with beautiful ocean is still found in Chuuk State and the state is world-renowned for excellent diving spots. The country has had a close relationship with Japan for a long time and such Japanese words as “denki (electricity)” and “gakkou (school)” are still in use in the country.



Promotion of 2R Activities among Residents

Because the state has no waste incineration plant or recycling facility and the existing disposal site is filled near to capacity, the 2R (reduce and reuse) activities must be promoted among the residents to reduce waste disposal.



▲ Survey on dissemination of 2R at a storefront

Activities



▲ Shopper with distributed shopping bags

Scene on site



▲ The landfill faced to ocean

To reduce the use of disposable plastic bags, we had many discussions with local NGO. They produced original shopping bags appropriate for the use in Chuuk and distributed them to the residents. In order to increase the number of shoppers declining disposable bags, we held a “No Plastic Bag Day” event at a local supermarket in cooperation with a collaborator, Soka University. Through those outreach activities, including lectures, implemented in various places have raised the awareness of the residents to the extent that local staff began their own waste reduction activities by themselves.

Through those activities, we assisted relevant local organizations for a law prohibiting the use of disposable plastic bags took effect in January 2020 and a new recycling center plan.

Installation of Organic Waste Disposal Units

There are areas where waste cannot be collected because of poor road conditions. Uncollected waste left in yards and along the road poses a serious hygienic problem. A survey on waste disposed of in these areas revealed that organic waste (including food waste, plants and grasses) accounted for about 50 % of the waste.

Scene on site



▲ Disposed organic waste

Activities



▲ The unit gives children an opportunity to learn about waste problems.

To facilitate appropriate waste disposal, we installed an organic waste disposal unit, in which organic waste is decomposed by microorganisms in the soil, at two locations and taught residents in the neighborhood how to use them. A survey after the installation revealed that the rate of organic waste had been reduced to about 20 %.

In addition, to extend the use of such units in other locations, we proposed equivalent products which can be made with locally available materials.

Chuuk State, Federated States of Micronesia

Assistance before this Project

Hachioji City had contributed to the establishment of a waste collection system in Chuuk State with such assistance as the donation of a garbage truck under a scheme of the Ministry of Foreign Affairs and a staff dispatch of a member from the municipal government as a Japan Overseas Cooperation Volunteer for two years from June 2011 to mitigate waste problems. However, as there were still such issues as the lack of knowledge of residents of waste disposal and the lack of maintenance of garbage trucks, further assistance was required for improving the waste disposal system in Chuuk.

Project Outline

- Project period: From August, 2017 to February, 2020
- Contents: Dispatch of experts - six times and a training course in Hachioji City
- Main activities: "Awareness-raising activities to promote 2R activities among residents," "Improvement in waste collection and vehicle maintenance" and "Installation of organic waste disposal units"
- Collaborator: Soka university (Chosen by openly accepting proposals among universities in the city. One of the characteristics the city is has many universities.)
- Cost: Borne by JICA

Improvement in waste collection and vehicle maintenance

The waste collection service stopped sometimes by frequent breakdowns of garbage trucks caused not only by salty sea breeze, dust and the poor road condition, but also by the lack of inspection and maintenance.



Activities

▲ Vehicle maintenance is essential.

▲ Training on safe waste collection

Scene on site



▲ Broken collection truck

We repaired a broken-down truck and taught local workers the causes of the breakdowns and inspection and maintenance methods. We also provided training on efficient and safe waste collection to improve the work and on the method to educate residents on waste reduction.

A manual for the continuation of these activities for future was also prepared.

Activities for Environmental Beautification and against Ocean Plastic Pollution

Plastic is scattered along the shoreline. Plastic, in particular, turns into "microplastics" are 5.0mm in size or less, over a long time. Pollution of the ocean by microplastics has become a global problem as there are reported of adverse effects of microplastics on the organisms.



Activities

▲ The skit telling the impact of littering



▲ Cleaning activity for keeping beautiful nature

We emphasized that inappropriate waste disposal would lead to the plastic pollution in the ocean in outreach lectures. Some of the audience said, "I didn't know throwing plastic bags away to the ocean had adverse effects on fish and the ocean" and "I will stop littering and start using the waste collection service."

In the cleaning activity co-organized with a local NGO, we collected litter with local people including many children. We felt the will of the residents to continue the cleaning activities after the conclusion of the project.

Scene on site



▲ Littered trash around coast

Training in Hachioji

We invited six persons involved in waste disposal in Chuuk State to the city to participate in a two-week training course in June, 2019. The trainees took part in various activities, including a field study of an outreach program on waste disposal for children at school, a study on the use of shopping bags by shoppers and interaction with local children and students. They also joined a volunteer activity of picking up trash to raise their awareness to environmental beautification.



▲ Study on use of shopping bags



Mr. Atson Nakayama,
Weno Municipal Government,
Chuuk State

I am very grateful to have this opportunity to learn many things, including the importance of the participatory approach and education for children. Among the things I learned, the concept “Think globally, Act locally” impressed me the most. We all will be united to continue to practice all what we have learned in the training.



▲Field study of school outreach program



Ms. Christine Robert,
Chuuk Women’s Council

The training has made me love this city. I will try to teach all what I have learned in the training to the residents and practice it in Chuuk. I think it is wonderful to maintain the friendly relationship between Hachioji and Chuuk because it will promote the beautification of the environment in Chuuk State.

Citizens’ Comments

We received comments on the project such as “I feel proud to be a citizen of the city” and “I would like to use the project as a class subject,” from citizens of Hachioji and other municipalities and educators who learned about this project from newspaper and TV reports and the city’s homepage. We have given lectures on the project and ocean plastic pollution problem at elementary and junior high schools and universities in the city, in response to their requests. The lectures have been used as opportunities for the students to think “what I can do” on the environmental and waste-related problems.



▲ Quizzes are part of the lecture.



▲ An opportunity to think how to be involved in solution of environmental and waste problems

I didn't know fish and turtles eat microplastics. I am going to use a shopping bag from now on. (a fourth grader living in Hachioji)

I felt grateful that waste is routinely disposed of without my knowing it. I would like to do whatever I can to reduce waste. (a seventh grader living in Hachioji)

