J-PRISM II HIGHLIGHTS

Federated States of Micronesia

Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries Phase II (J-PRISM II)

J-PRISM II is the five-and-a-half-year Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management (2017-2022), assisting nine member countries (Federated States of Micronesia (FSM), Fiji, Republic of the Marshall Islands (RMI), Palau, Papua New Guinea (PNG), Samoa, Solomon Islands, Tonga, and Vanuatu) in the Pacific Region in partnership with the Secretariat of the Pacific Regional Environment Programme (SPREP). The project was commenced in February 2017, following the previous phase from 2011 to 2016.

Formulation of State Solid Waste Management Strategies (SSWMSs)

J-PRISM II has been supporting the four states of the FSM in formulating their state solid waste management strategies as an important outcome of the project. Support for strategy formulation was also provided during its predecessor project, as well as by other donors. However, J-PRISM II's support differs significantly from the previous support because it involves understanding the current solid waste management (SWM) situation technically as well as quantitatively through baseline surveys in order to set strategic goals and actions.

The formulation of SSWMSs is carried out according to the following two-step approach.

SSWMSs formulated by states in the FSM

Step 1: Understanding the current SWM situation technically as well as quantitatively

In 2017, officers in charge of SWM in each of the four states worked with J-PRISM II experts to conduct a series of baseline surveys in each state. These included waste amount and composition surveys (WACSs), as well as incoming waste amount surveys at landfill sites, time and motion surveys, and public opinion surveys. The results were summarized as waste flows, which were used to identify the urgent SWM issues and challenges in each state technically as well as quantitatively and share these among key stakeholders.

Step 2: Formulating strategies to tackle SWM issues and challenges identified

Based on their shared understanding and perception of urgent waste issues and challenges, the key stakeholders formulated SSWMSs in each state. All SSWMSs were endorsed by the respective governors.

The SSWMSs listed several priority activities that each state should undertake. Of these priority activities, those to be tackled urgently by each state were chosen as project outputs of J-PRISM II and officers in charge of SWM in each state are currently implementing improvements along with J-PRISM II experts. The next section details the im-

An EPA officer and a J-PRISM II expert measure the waste discharged by a household per day (2017)

Consultation meeting on the SSWMS in Yap (2018)

provement activities that each state is working on. (Note: PDF files of all SSWMSs are available on the SPREP website at https://www.sprep.org/j-prism-2/report-and-materials and via the SPREP Virtual Library at https://library.sprep.org/).

Yap: Pilot project to expand the public collection service

Yap is known for its advanced initiatives such as banning the import of plastic shopping bags and introducing a deposit-based recycling scheme for beverage containers (i.e., a container deposit scheme), but the SWM baseline survey revealed that garbage collection by the public sector is not provided in most communities. Thus, expansion of waste collection coverage is the biggest challenge in Yap. The state's Department of Public Works and Transportation (DPW&T) and Environmental Protection Agency (EPA) gathered together with experts of J-PRISM II and decided to tackle this issue by implementing a pilot project under J-PRISM II. Details of the pilot project have been under discussion.

Chuuk: Introduction of a Container Deposit Scheme (CDS) for Recycling

Chuuk has a history of being the first state to adopt a recycling law among the four states of the FSM. In Chuuk, recycling was institutionalized in 1979 for aluminum cans of non-alcoholic beverages such as soda (at the time, the import of alcohol was prohibited), even before the FSM gained its independence. After that recycling activities stopped working, a private company recycled aluminum cans and scrap metal, but since the company went out of business, similar recycling activities have not been carried out at all. Thus, Chuuk is currently the only state in the FSM that is not undertaking any recycling.

Having recognized that Chuuk EPA and Department of Transportation and Public Works (DT&PW) firmly intend to introduce a deposit-based container recycling scheme, J-PRISM II is making arrangements to provide technical support. Reflecting the strong intentions of the parties concerned, the introduction of a deposit-based recycling scheme is also set as a priority issue in the Chuuk SSWMS. However, prior to the provision of technical assistance, it is essential to prepare recycling facilities (including equipment and materials) and the necessary financial resources to collect beverage containers imported to the island before deposits start to be charged (i.e., "legacy cans"). Therefore, J-PRISM II and other donors are currently helping Chuuk's EPA to prepare in this regard.

Pohnpei: Improvement of the CDS

In Pohnpei, only aluminum cans are handled under the CDS. Currently, collection of aluminum cans is undertaken mainly by EPA in cooperation with the city authorities of Kolonia and Madolenihmw, unlike in Yap and Kosrae, where collection of beverage containers is completely outsourced to private companies. However, collection by EPA has been conducted only a few times a year due to EPA's time constraints, which present many challenges in implementing the CDS in Pohnpei. The waste flow formulated under the SSWMS also reflects such issues, showing a low rate of beverage container recycling in Pohnpei.

In the process of SSWMS formulation, these issues of concern were shared among stakeholders, increasing their intention to improve the CDS.

EPA constructed a new and bigger recycling center near the public disposal site with grass-roots grant aid from Japan, and is also in the process of procuring a new and bigger press machine with non-project grant aid from Japan. Preparations are making good progress. As soon as these preparations are complete, J-PRISM II will start providing technical advice on amendment of laws and regulations to allow handling of beverage containers other than aluminum cans, as well as on privatization of the redemption centers, and on awareness activities.

Kosrae: Introduction of an Inter-Municipal Collection System (IMCS)

Challenge identified: Improvement of collection

Kosrae is the smallest state in the FSM with a population of about 6,000. Kosrae is well known for its depos-

The notice board installed by KIRMA to notify people not to dump waste in open spaces (2017). Several illegal heaps of waste had been observed, especially in the municipalities with no regular waste collection services at the time. These illegal dumps had been removed by the efforts of KIRMA in collaboration with DT&I.

it-based beverage container recycling system, which has been properly implemented by the private company that operates the redemption center and is supervised well by Kosrae Island Resource Management Authority (KIRMA). It is also known for the good operation and management of its public disposal site by the Department of Transportation and Infrastructure (DT&I). As for waste collection, four municipalities on the island are mandated to provide collection services to the residents. However, municipalities with weak finances had been struggling to provide regular collection services to the residents, and the results of the SWM baseline survey under J-PRISM II confirmed that improvement of collection was a challenge to be tackled urgently in Kosrae.

The same baseline survey also revealed that in total, only 18 tons of waste per week were discharged from all four municipalities, as seen in the map below. At the same time, it became apparent that a new 4-ton compactor truck had just been procured through non-project grant aid from Japan. By utilizing this new compactor truck, all of the waste generated on the island could be collected and transported to the public disposal site, and therefore the J-PRISM II experts recommended that key stakeholders consider the introduction of an IMCS. The key stakeholders, including mayors, DT&I, KIRMA, and the Governor's Office, conducted a series of discussions among themselves and decided to introduce the IMCS.

The four municipalities of Kosrae

Features of the IMCS

In order to introduce the IMCS, three issues had to be resolved first. They were: (i) who would operate the IMCS, (ii) how to finance the IMCS, and (iii) which collection system would be employed for the IMCS. In answer to (i), key stakeholders agreed that DT&I would become the operating agency. In other words, DT&I would provide collection services to the residents, instead of the municipalities. This became possible by amending the state code that defines the roles and responsibilities of DT&I. Now, the provision of waste collection is formally defined as a responsibility of DT&I. With regard to (ii), sustaining the IMCS would require USD 16,000 annually, of which USD 10,000 would be financed by the regular budget of DT&I. The remaining USD 6,000 would be borne by each municipality in proportion to its population size. In response to (iii), a curbside collection method would be employed in most areas, since people live along the main roads in Kosrae. The compactor truck, which has a sound system, would drive past playing music on the collection days. People would bring their wheelie bins to the road side when the music approached. Only in a few locations where the road condition is bad and a compactor truck is unable to pass by, a station-based collection system was employed. The IMCS started in February 2020, after training in waste collection using the new compactor truck, as well as a series of community meetings and awareness-raising activities in each municipality. J-PRISM II will continue to monitor implementation of the IMCS throughout the project period.

Introduction of an Inter-Municipal Collection System (2020)

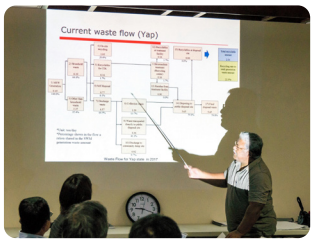
DECEM: Promotion of knowledge- and experience-sharing among the four states

In collaboration with the Department of Environment, Climate Change and Emergency Management (DECEM), J-PRISM II organizes SWM workshops biannually, aiming to provide opportunities for knowledge- and experience-sharing among the four states.

First SWM Workshop in September 2017

The first SWM workshop was held on September 27, 2017. At this workshop, representatives from the states presented the results of their SWM baseline surveys along with waste flows, and identified priority issues for each island. Also, in order to incorporate the essence of the Pacific Regional Waste and Pollution Management Strategy, known as Cleaner Pacific 2025 into the SSWMSs, an expert from SPREP conducted a session to familiarize participants with core values of Cleaner Pacific 2025.

Active discussion at the workshop (2017)



Presentation by the deputy director of Yap DPW&T (2017)

Second SWM Workshop in September 2019

The Second SWM workshop, on the theme of improvement of collection, was held on September 26, 2019. Representatives from each state presented their state's waste collection situation. In addition, states with plans to implement collection improvement activities under J-PRISM II introduced their plans.

Presentation by the director of Kosrae DT&I (2019)

A group picture of the participants (2019)

Knowledge-sharing among three countries in the Micronesia region

J-PRISM II is actively promoting the sharing of knowledge and experiences among participating countries. Provision of regional training as seen below is one such effort under J-PRISM II.

Training on landfill management in Palau, February 2018

On-site training on sanitary landfill design and operation using the Fukuoka Method was conducted in Palau by Fukuoka University and the NPO SWAN Fukuoka from February 5 to 10, 2018, in collaboration with J-PRISM II.

JICA has been conducting a training program in Japan named "Design and Maintenance of Semi Aerobic Landfill Site (Fukuoka Method)," and representatives from Pacific Island Countries have been participating in the training every year. The training in Palau was designed as follow-up training for previous participants in JICA's landfill training in Japan, but landfill management officers who had no experience of the training in Japan were also able to attend the training this time. Of around 30 participants from the Micronesia region, four officers were from the FSM, namely from DPW&T (Yap), DT&PW (Chuuk), Pohnpei Waste Management Service (Pohnpei), and DT&I (Kosrae). They were trained by Japanese experts headed by Professor Matsufuji of Fukuoka University, and gained technical knowledge, alongside brushing up their landfill operation skills, through a half-day seminar and four days of on-site training. Utilizing skills and knowledge gained from the training, participants have subsequently dedicated themselves to improving the management of disposal sites in each country.

Disaster waste management (DWM) workshop in Palau, February 2019

Representatives from Yap, Pohnpei, Kosrae, and Chuuk attended the regional stakeholders' consultation workshop in Palau for the development of the regional DWM guideline. This consultation workshop was coordinated and conducted by J-PRISM II in collaboration with SPREP and the Japanese team that developed the Disaster Waste Management Guideline for Asia and the Pacific . A DECEM official led the representatives from the relevant organizations of the FSM, namely DPW&T (Yap), DT&PW (Chuuk), EPA (Pohnpei), and KIRMA (Kosrae). The five participants

delivered a number of presentations addressing the situation at the national and state levels, providing information on the overall status of DWM in the FSM and how disaster waste is managed. This baseline information was essential for developing the draft regional DWM guideline.

The workshop also provided guidance on the development of a national DWM contingency plan. This is important for future response and recovery measures when disaster strikes. A draft plan was presented and discussed, and participants were tasked with completing it after their return home.

[*1] https://www.env.go.jp/press/files/jp/110165.pdf

About Us: J-PRISM II in Federated States of Micronesia

In the Federated States of Micronesia, day-to-day activities have been conducted in line with the project framework below in close cooperation with the counterpart agencies:

- Department of Environment, Climate Change and Emergency Management (DECEM)
- Yap: Environmental Protection Agency (EPA), Department of Public Works and Transportation (DPW&T)
- Chuuk: Environmental Protection Agency (EPA), Department of Transportation and Public Works (DT&PW)
- Pohnpei: Environmental Protection Agency (EPA), Office of Transportation and Infrastructure (T&I)
- Kosrae: Kosrae Island Resource Management Authority (KIRMA), Department of Transportation and Infrastructure (DT&I)

Country Activities in Federated States of Micronesia

Federal Level

Purpose	Support to creation of solid waste management system in each four state is provided.
Output 1	Support from DECEM to formulate SSWMS is provided to each state.
Output 2	Good practices of solid waste management /3Rs[2] are promoted in the country.

State Level

Purpose		Creation of solid waste management system is promoted.
All four states	**Output 1**	New SSWMS and its action plan prepared in line with the Cleaner Pacific (2016-2025) are developed.
	Output 2	Good Practice of solid waste management/ 3Rs are promoted in the country and the region.
Yap & Kosrae	**Output 3**	Waste collection is improved.
Chuuk& Pohnpei	**Output 3**	Effective CDS implementation mechanism is explored by relevant authorities.

All the member countries are also assisted under the regional project framework to enhance the regional monitoring mechanism, south-to-south cooperation, disaster waste management, and the 3R+Return system in the region.

Regional Activities including Federated States of Micronesia

- Output 1: Monitoring mechanism for solid waste management in line with Cleaner Pacific 2025 is strengthened.
- Output 2: Regional cooperation is organized and promoted by utilizing regional human resource and sharing good practices in the region.
- Output 3: Regional capacity of disaster waste management is strengthened.
- Output 4: Practical and sustainable 3R+Return system is examined.

[*2] Reduce, Reuse, and Recycle

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