

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.

Successful Implementation of Sustainable Waste Management Services in Outer Islands

Vava'u is an island group comprising one large island ('Utu Vava'u) and 40 smaller ones in Tonga. It is about 300 km as the crow flies from the capital of Tonga. The population is about 12,000, which is around 12.5% of the total population of Tonga. Vava'u is known for its whale-watching, and during the whale-watching season, which runs from July to October, many tourists visit the island.

Vava'u is such a beautiful island, but prior to 2018 there was no regular garbage collection service, despite the previous phase of J-PRISM attempting to address this issue. In 2016, Waste Authority Limited (WAL), a public company that provides waste management services in the capital of Tonga, was officially approved to expand its services into the remote islands. Since then, J-PRISM II has been providing technical support to introduce sustainable waste management services to Vava'u and other outer islands such as Ha'apai and 'Eua.

Field survey

In order to start the waste collection service in Vava'u, WAL staff and J-PRISM II conducted a field survey. The survey covered 25 villages and one urban area. Access to waste collection sites was a concern due to the wide dispersal of villages throughout the island and the steepness of the slopes in some areas, but road conditions proved to be adequate. The survey revealed substantial illegal dumping on the island, confirming the need for a waste service. On some occasions, power company officials also accompanied the surveyors to check the electricity meters, as waste fees were to be collected from households and commercial buildings together with electricity fees.

Stakeholder meeting

Based on the results of the field survey, WAL and J-PRISM II experts worked together to develop a plan to begin a waste collection service. Although some community-based waste collection was already taking place with the support of J-PRISM, it was the first time the Vava'u people would pay for waste collection. Therefore, the governor of Vava'u, representatives of the villages, and officials from various government offices including the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change, and Communications (MEIDECC) were invited to a stakeholder meeting and the plan was explained. As it had previously been free to dispose of waste, there was some opposition to paying for the service. However, the service was eventually accepted by the Vava'u people, who shared a desire to conserve the island's beautiful nature. Their understanding was secured thanks to a plan based on data and the help of a newly hired WAL manager who hailed from Vava'u, as well as MEIDECC officials. Waste management services started officially in April 2018.

Making use of the experience gained in Vava'u, waste

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management services were started in 'Eua in October 2020, and in Ha'apai in November 2020.

On-the-Job Training for Waste Management Service Workers in Outer Islands

Landfill management with heavy machinery

Every day (excluding Sundays) approximately 9 tons of waste is carried into the Kalaka Landfill in Vava'u. It is therefore crucially important to maintain the landfill using heavy machinery, to maximize landfill capacity and stabilize the waste layer. The governor of Vava'u provided a mechanical excavator to the landfill site, and J-PRISM II has provided on-the-job training to the WAL personnel so that they can regularly use the excavator for loading, bed-leveling, compaction, and tightening of the garbage. The landfill had previously been considered a nuisance and was disliked by local residents, but the maintenance work has gradually reduced offensive odors, as well as the number of flies and other pests. Nowadays, the landfill is accepted by the local community. In 2020, financial assistance from Vava'u's governor enabled it to be covered with soil, which was a further improvement. While there is a plan to build a new landfill at another location in Vava'u, it is not easy to secure a site for it, so the existing Kalaka Landfill site will continue to be used for the time being. It is therefore more critical than ever to prolong its useful life through proper and continuous management by WAL.

Visual inspections of incoming waste

At the landfill site, the type and volume of incoming waste needs to be controlled in order to prevent environmental pollution in the area, preserve the facilities, and



Heavy machinery at the Kalaka Landfill site



Record-keeping by a WAL landfill management staff member

facilitate landfill operations. J-PRISM II provided on-the-job training to WAL landfill management staff on how to inspect incoming waste at the landfill gate. As a result, vehicles are monitored at the landfill's entry points and WAL now records and accumulates data such as vehicle types and arrival times, and waste sources, volumes, and categories. As mentioned above, the main purpose of this data is to facilitate proper management of the landfill site, but WAL also uses it to charge waste fees to businesses. Additionally, the data has been used for improving WAL's own operational management, and its usage is expanding.

Waste collection monitoring

J-PRISM II also provided on-the-job training for the staff of WAL's Vava'u branch on monitoring waste collection operations. Monitoring covers waste collection locations, the number of personnel and length of time needed to collect the waste, and the cost of fuel for each vehicle. Based on these individual data, WAL has improved on the collection plan developed when WAL's waste management services were initiated.

Disaster Waste Management (DWM)

Regional Consultation Workshop in Samoa, October 2018

At the regional stakeholders' consultation workshop held in Samoa for the development of the regional DWM guideline, Tonga was represented by a representative of MEIDECC and a representative of the National Emergency Management Office.

This consultation workshop was organized and conducted by J-PRISM II in collaboration with SPREP and the

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team that developed the Disaster Waste Management Guideline for Asia and the Pacific¹. A combined presentation delivered during the workshop provided baseline information for development of the regional DWM guideline. The workshop also provided information on how to develop a national DWM contingency plan. Tonga, like other participating countries, discussed and developed a draft plan during the workshop.

^{*1} https://www.env.go.jp/press/files/jp/110165.pdf





About Us: J-PRISM II in Tonga

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

- Waste Authority Limited (WAL)
- Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC)
- Ministry of Health

Country Activities in Tonga

Purpose	A foundation of sustainable solid waste management is built in the Tongan outer islands, with emphasis on practical implementation.
Output 1	WAL's 5 year business plan for expanding waste management services throughout Tonga is formulated.
Output 2	WAL's capacity on implementation of sustainable SWM in the Tongan outer islands is strengthened through providing waste management service in Vava'u.
Output 3	SWM action plans for the main islands of Ha'apai and 'Eua are developed.
Output 4	WAL's capacity on implementation of sustainable SWM in the Tongan outer islands is strengthened through providing waste management service in Ha'apai and 'Eua.

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 Tonga

- Output1: Monitoring mechanism for solid waste management in line with Cleaner Pacific 2025 is strengthened
- Output2: Regional cooperation is organized and promoted by utilizing regional human resource and sharing good practices in the region
- Output3: Regional capacity of disaster waste management is strengthened
- Output4: Practical and sustainable 3R+Return system is examined

Contact Us:

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