Yoko Onuma  
JICA Expert

The Samoa Recycling and Waste Management Association (SRWMA) and JPRISM had jointly completed Phase 1 of the pilot project on waste oil collection and storage for a month from August to September 2021. Phase 1 was carried out especially to acquire and analyze the basic data necessary for waste oil collection and storage activity.

As shown in Table 1, this time SRWMA/JPRISM set collection and weighing days twice a week, and set collection target amounts per day and month.

<table>
<thead>
<tr>
<th>Item</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 Implementation Period</td>
<td>1 month (From August 30 to September 29, 2021)</td>
</tr>
<tr>
<td>Waste Oil Collection and Weighing Day</td>
<td>2 days a week (Monday and Wednesday)</td>
</tr>
<tr>
<td>Daily Collection Target Amount</td>
<td>1,000 – 4,000 liter/day (1-4 IBC/day)</td>
</tr>
<tr>
<td>Monthly Collection Target Amount</td>
<td>8,000 – 32,000 liter/month (8-32 IBC/day)</td>
</tr>
</tbody>
</table>

Table 1: Implementation plan for the 1st phase
As shown in the collection results in Table 2, SRWMA collected waste oil from 3 companies and achieved both daily and monthly target amounts.

<table>
<thead>
<tr>
<th>Collection Day</th>
<th>Location</th>
<th>Collection Amount (liters)</th>
<th>Breakdown by Container Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>30th August (Mon)</td>
<td>Ford Samoa</td>
<td>9,650</td>
<td>51 Drums</td>
</tr>
<tr>
<td>6th September (Mon)</td>
<td>Vailima Breweries</td>
<td>8,098</td>
<td>40 Drums + 21 Small Containers</td>
</tr>
<tr>
<td>13th September (Mon)</td>
<td>Nissan Hyundai Service Center</td>
<td>11,608</td>
<td>60 Drums</td>
</tr>
<tr>
<td>20th September (Mon)</td>
<td>Nissan Hyundai Service Center</td>
<td>11,608</td>
<td>60 Drums</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>40,964</td>
<td>211 Drums + 21 Containers</td>
</tr>
</tbody>
</table>

Table 2: Waste oil collection results in the 1st phase

The factors that made it possible to achieve the collection target amounts were the operation status of rental vehicles such as truck and forklift, the number of workers assigned by SRWMA, and their all-devoted work.

Through the implementation of Phase 1, SRWMA and JPRISM reaffirmed that waste oil collection and storage work is a physically demanding task for workers, and a detailed cost calculation is required to do these works safely and efficiently.

SRWMA has started a voluntary waste oil collection program “SWOMP -Samoa Waste Oil Management Program-” since 2019, but until now it has been difficult to smoothly collect waste oil due to the following three main challenges.

- Difficulty in Assigning Workers and Vehicles Due to Chronic Labor Shortage
- Lack of Data Collection and Analysis
- Difficulty in Securing Export Destinations

This pilot project on waste oil will continue for another five months of Phase 2. For the next phase, JPRISM plan to analyze the implementation results of Phase 1, check more appropriate collection methods, equipment necessary for collection, conduct cost analysis, review the level of collection charge fee from generators and work necessary to secure export destination.
Mayu Nomura
JICA Expert

Maintaining facilities and equipment in good condition is one of the critical factors for sustainable waste management. With the intention to enhance counterparts’ capacity in this area, J-PRISM regional project has been working with Micronesian counterparts since the baseline interview survey conducted in 2019, which identified e.g. types and conditions of vehicle/ heavy machinery, workers’ capacity on maintenance, and organizational work flow for managing them. The collected information through the survey indicated that the preventive care of the vehicle/ heavy machinery needs to be enhanced in each institution whereas the reactive care, repairing and fixing, is always of importance.

Aiming at providing drivers and operators with knowledge and techniques on pre-after operation inspection, a series of online trainings were planned for each Micronesian counterpart institutions, including Bureau of Public Works (BPW) of Palau, Majuro Atoll Waste Company (MAWC) and Kwajalein Atoll Local Government (KALGOV) of the Republic of Marshall Islands (RMI), state governments of the Federated States of Micronesia (FSM), and 6 municipalities in Pohnpei State.

Although the training objective is the same, detailed contents and learning materials are designed for each institution reflecting pre-consultation and performance review through pre-recorded video by the lecturer. In July 2nd, the very first training was carried out for Kosrae in virtual setting, then another for Palau took place in September 28.

Training for Kosrae was delivered to a small group including mechanics, drivers, and landfill staff. They learned some necessary actions taken before starting engine, technical tips to tightening wheel nuts, hammering test methods, and so on. It was concluded to hold the second training for a larger audience in Kosrae.

The one for Palau benefitted 13 trainees from BPW and Koror State Government. It is especially expected to train those who operates dump truck and bulldozer equipped with the newly developed landfill site in Babeldaob.

In addition to the technical tips on inspection, the lecture highlighted the mechanism of engine oil when mixing with coolant, what would happen, and how much cost for it. The necessity of daily inspection seemed well noted.

The same kind of training was planned for KALGOV, Chuuk State, and Pohnpei in October.

1.2 Recommendation (Heavy)

2. No need to tilt the cabin
Engine oil/Power steering oil/Radiator coolant water

3. Opening the Front lid
Radiator coolant water
As part of Disaster Preparedness for the upcoming cyclone season in Vanuatu, JPRISM II conducted a training on the use of the Kobotoolbox Data Collection Technology for gathering information on the generated waste and damages caused to waste management facilities during disaster events. More than 15 officials participated from the Department of Environment and Conservation (DEPC), National Disaster Management Office, Port Vila City Council, Shefa Provincial Government Council, SPREP and others. The training programme covered - setting up of the participants’ Kobotoolbox accounts, creating of data collection forms, use of android devices to fill the forms, uploading of the filled forms to a designated server. The participants also learnt how to receive submitted forms in a designated server, view and extract the analysed information for reporting purposes.

Most of the participants were able to demonstrate through the training practical sessions, their capacity to use the Kobotoolbox applications. It was highlighted during the training the importance for the participants to achieve that level of skills and knowledge, for supporting future assessment in Vanuatu using this approach.

The Kobotoolbox Data Collection technology is free and has been used under several United Nations Humanitarian and Disaster Management initiatives throughout the world, and recent waste assessments in the region (International Union for Conservation of Nature [IUCN], World Bank, etc). This technology replaces the old paper version with the use of android devices to collect different types of information including photos, audios, documents, GPS coordinates, etc.

Ms. Ionie Bolenga, the Principal Waste Management and Pollution Control Officer of DEPC, thanked JPRISM II for this initiative. She confirmed the readiness of Vanuatu to use this data collection technology in the future. Mr. Ken Mana of NDMO reiterated the importance of this training for NDMO’s general disaster assessment purposes.

Similar training opportunities are currently planned for Samoa and Tonga. For more information, refer to the following links for disaster waste collection form samples.

https://ee.kobotoolbox.org/single/abwzUq0F - DW Collection Form - Vanuatu
https://ee.kobotoolbox.org/single/f3qqQt98 - DW Collection Form - Tonga
https://ee.kobotoolbox.org/single/SboV3qDc - DW Collection Form - Fiji
In 2007, the M-Dock landfill in Koror State was rehabilitated using the Semi-aerobic System (Fukuoka method) and is now nearing its full capacity, and the completion of the new National Landfill in Aimeliik State in November 2020 was a huge improvement to the solid waste management system in Palau. The Palau National Landfill Project was funded by the Government of Japan. The Ribbon Cutting Ceremony for the Construction of the National Landfill was held on November 19th, 2020 and was attended by a number of key officials including Former President Tommy E. Remengesau, Jr., Paramount Chief Ibedul, Paramount Chief Reklai, Ambassador Karasawa Akira of Japan Embassy, former JICA Palau Resident Representative Mr. Yoshikazu Tachihara and other notable guests and stakeholders. The National Landfill also used the Fukuoka Method, a semi-aerobic waste disposal technology developed in Japan, and is expected to last 20–25 years. It has four cells with a capacity to hold 384,898 cubic meters of waste and a leachate pond equipped with a circulation system where leachate is collected and pumped back into the waste disposal area to eliminate outside discharge. The daily operation of the new National Landfill is progressing well so far and there are ongoing discussions regarding tipping fees from businesses amongst other issues based on the collected data from the weighbridge. Along with this national landfill project is the inter-state collection service to serve ten (10) states in Bebeleob, Palau. Both the landfill operations and the collection service contract started on 22nd February, 2021. Issues and concerns related to the inter-state collection service are discussed at a monthly meeting among solid waste management staff, state representatives and the contractor in order to make improvements accordingly. With efforts to improve solid waste management in Palau, Koror State Recycling Facility has launched a new and improved Glass Craft Center that turns waste glass to a work of art product to accommodate the tourism industry. The Koror State Recycling Facility consists of the Glass Craft program, Compost program, Plastic to Oil program and a Redemption Center for the CDL program in Palau. Palau hopes that the Facility will continue to improve its recycling activities in order to achieve sustainable solid waste management.

For more information on the above activities, please visit:
Division of Solid Waste Management Office / Facebook
KSG-Solid Waste Management Office / Facebook
Waste Management Activities in the Republic of Marshall Islands

Jacqueline Lakmis
Operation Manager [MAWC]

It is two months away from the busiest season of all. A season of festive in the air. A whole month dedicated in sharing, socializing, sparkling atmosphere with lights shining brightly throughout the night, celebrating with delicious and assorted tastiest food for joy. With all the gifts to unwrap, all the delicious food to consume and festival decorations to use, would it be a season of generating more waste or would it be of a campaign recently launched by Jo-Jikim “ Kariklok Kobij, Kolaplok lakwe”, translated “Reduce Waste, Increase Love”, a joyful season for all. Start planning now and don’t wait until it’s too late unless you are among those who like to generate more waste.

Majuro Atoll Waste Company here in the Republic of Marshall Islands continue this fight in finding solutions with limited financial resources available to instill in the mindset of the public to be more responsible and respectful towards waste. How you may be responsible and respectful you may ask? One look at the mountain trash to understand there is need to increase effort from the public in practicing 3Rs (re-use, reduce, recycle).

As mentioned in the previous newsletter, study shows 34tons is received daily. And so, the war continues bringing the warriors from the MAWC calling on donor partners and experts from national level down to local level for their aid. The technical team experts from Japan called J-PRISM team was consulted in guiding us through our method of attacking the situation when eradicating seawall at lagoon side to address the current dire situation as seen in photo above. Continued next page.
On March early this year, dumping begins and ONLY of household and green waste collected by MAWC. Construction of the seawall is under the Ministry of Works, Infrastructure and Utilities and separating the area into two cells; Cell1 & Cell2.

The project is strictly monitored by the Environmental Protection Authority to ensure tight guidelines are followed to eliminate any risk. Tests were taken before and after of the surrounding water inside cells and outside wall and have been with zero contamination found. These samples were sent to New Zealand at Hill Laboratories for testing. Work continues to progress.

While this is taking place, Republic of the Marshall Islands and the Majuro community is highly appreciative to the People and the Government of Japan for recent approval of another initiative called “Majuro Atoll Waste Company’s Waste Collection Improvement and Expansion Project”. The project aims to develop a safe and efficient standard of collecting and hauling of solid waste from residential homes and commercial users to the landfill. More than 50% of the population in the community will benefit from this project, for example through replacement of the damaged wheelie bins to new bins. Donated under the Japan Counter Part fund with a total estimation of $260,000.
JICA has initiated a new concept “JICA Clean City Initiative” this year, with a holistic approach which seeks to utilize a wide range of knowledge and resources to promote a safe and clean environment worldwide. The initiative works on the nexus of waste, water and air through Technical Cooperation focusing on institute and individual capacity development of administrative organizations, while appropriate solid waste management is essential to prevent water pollution and marine plastics.

The 9th Pacific Islands Leaders Meeting was held in July this year, and Leaders adopted the Pacific Bond or KIZUNA Policy which aims to enhance the partnership between Pacific Island Countries and Japan. Out of the five priority areas of the policy, Sustainable Ocean includes cooperation on waste management. J-PRISM is the flagship project to materialize KIZUNA Policy and JICA Clean City Initiative.

In the 30th SPREP Meeting held in September 2021, the two decades long partnership on waste management between SPREP and JICA was highly evaluated. While the second phase of J-PRISM is being completed September 2022, implementation of the succeeding phase, J-PRISM III, was supported and endorsed by SPERP and its member countries. Formulation of the next phase of the project will be carried out from late 2021 to early 2022.
About 100 participants attended the 4th Regional JPRISM II Steering Committee Meeting that was held virtually on Friday 6th August. JPRISM II is a solid waste management technical cooperation project under JICA in partnership with SPREP. The meeting was chaired by Samoa, who was represented by the Ministry of Natural Resources and Environment Assistant CEO (Division of Environment and Conservation), Mr. Seumalo Afele Failagi.

JPRISM II Chief Advisor, Mr. Satoru Mimura during his welcoming remarks stated that the purpose of the meeting was to discuss and review the progress of the project activities at the regional and country levels. He reiterated the importance of the meeting not only as a mechanism to monitor the progress of the project in all the nine countries, but also an opportunity to bring together the project team members and counterparts.

Mr. Kosi Latu, SPREP Director General thanked the government of Japan and the people of Japan for the continuing support to waste management in the region. He highlighted the 20 years history of collaboration between Japan through JICA and its waste management projects at the regional and country levels, which had contributed to the improvement of waste management in most of the Pacific Island Countries.

Mr. Seumalo Afele Failagi as the Chair of the meeting expressed his appreciation of Japan’s support to Samoa and other Pacific Island Countries, not only through the JPRISM I & II, but also other bilateral collaborations and initiatives through JICA and Embassies of Japan in the region.

During the discussion of the project activities, Mr. Satoru Mimura briefly summarized the achievements made at the regional level through the four key project outputs, as well as the planned activities for the remaining period. The JPRISM II National Activities Expert Team presented the achievements and progress made in the nine project countries.

Professor Kunitoshi Sakurai, Chair of the JPRISM II Technical Advisory Committee, thanked all the project countries especially the counterparts for their efforts. He was delighted with the great achievements made regardless of the challenges and difficulties associated with the COVID-19 pandemic.


JPRISM II team really appreciate each country’s efforts in tackling waste management and are grateful for their cooperation with the project activities both at national and regional level.
UPCOMING EVENTS

Join our Pacific Conversation

Register Today!

3RD CLEAN PACIFIC ROUNDTABLE

The Pacific Roundtable aims to drive high-impact and scalable initiatives for specific challenges relating to waste management in the Pacific Region.

EVENT DATES: 16-25 NOVEMBER 2021

MORE INFORMATION ABOUT THIS EVENT CLICK HERE

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