J-PRISM FLASH No.2

1. What is J-PRISM FLASH

January 2013, No.2

Contents

J-PRISM Flash is a newsletter of which aims are to share the project practices and lessons learnt in the Pacific region. In addition, this newsletter would further facilitate communications among all stakeholders of the J-PRISM including project counterpart members, NGOs, private sector and international organizations relating to waste management in the region.

J-PRISM Flash ***"No.2"*** *provides an update of the J-PRISM project activities both at regional and national levels, with a special feature on* ***"3Rs"****.*

2. Regional Activities

2-1. J-PRISM 3R Regional Training

J-PRISM 3R Regional Training, in collaboration with Shibushi city, one of the most successful municipalities in Japan in minimizing waste, was organized by Department of Environment, Ministry of Local Government, Urban Development, Housing and Environment, Fiji from 19th to 23rd November 2012 in Nadi, Fiji. The training was supported by Lautoka City Council, Nadi Town Council, Sigatoka Town Councils, and OISCA, a Japanese NGO to share their advanced experiences and lessons learnt. The objective of this training was to provide waste management personnel in PICs with basic and practical technical knowledge on waste minimization through 3R (reduce, reuse and recycle) activities. 11 participants among 30 in total were from outside of Fiji such as Kiribati, Marshall Islands, Samoa, Solomon Islands and Vanuatu.

As mentioned above, Shibushi City is famous as a "3R City" who has achieved eighty (80) % reduction in the amount of waste disposed at its landfill for only seven years without an incinerator for solid waste. The experience of Shibushi is very valuable and helpful to PICs in order to minimize and reduce the growing

amount of solid waste. In the training, experts from Shibushi City demonstrated how to separate rubbish in order to make them change into valuables again. At the community meetings, training participants learned the importance of close and frequent communication with residents as a duty of officers in charge of waste management in order to introduce changes such as waste segregation and minimization.

At the end of the training, each participant developed a 3R action plan to implement in his/her home country or municipality. For example, Ms. Rosemary Apa from Ministry of Environment, Climate Change, Disaster Management, & Meteorology, Solomon Islands, came up with idea to implement 3R activities at school in Honiara City, replicating activities widely spread in schools in Nadi and Lautoka in Fiji as the "Clean School Program". She told that she would discuss her plan with stakeholders as soon as she came back home. The action plans developed through the training would be continuously monitored by the J-PRISM.

2-2. J-PRISM 2nd Steering Committee Meeting

The 2nd J-PRISM Steering Committee met in September 2012 during the 23rd annual SPREP (Secretariat of the Pacific Regional Environment Programme) Meeting held in Noumea, New Caledonia and brought representatives of 10 project member countries together. A delegation from JICA Headquarters in Tokyo, SPREP and observers such as USAID, World Bank, etc. also joined the meeting. The meeting was chaired by Mrs. Tagicakibau, Permanent Secretary of the Ministry of Local Government, Urban Development, Housing and Environment, Republic of Fiji.

Two representatives from the Solomon Islands, Ms. Wendi Beti (Environment Officer of the Ministry of Environment, Climate Change, Disaster Management, & Meteorology) and Mr. Derald Michael (Town Clerk of the Gizo Town Council) presented the successful activities being undertaken in their country such as waste data collection activities and preparation of dumpsite improvement plans. Fiji representatives also presented the progress of activities on 3R and its assistance to other countries through the country attachment and study visit programs. Mr. Gyneshwar Rao, Director Health Services of Lautoka City Council and Mr. Rajeshwar Raj, Acting Senior Health Inspector of Nadi Town Council gave presentations respectively on behalf of Fiji.

"I was very much encouraged by the presentations and they reminded me of the important fact that it is our counterparts who bring about or inspire local changes, not a donor agency or external experts," commented Mr. Shiro Amano, Chief Advisor of J-PRISM, JICA. "We are the coaches to develop and increase our players' capacity so that those players will be able to achieve their goals without coaches in the future. JICA, together with SPREP, will continue to support our counterparts' initiatives as they help each other and build on the capacity that was developed through past assistance."

SPREP's Director General, Mr. David Sheppard, thanked JICA, and in particular Mr. Amano and his team for their excellent work and dedication to assisting the Pacific improve regional waste management. "J-PRISM is a model for the Pacific region and one that I would like to see repeated. The presentations were inspiring and demonstrate that with the right guidance, our islands have the capacity to improve their situation in terms of waste management."

The Steering Committee Meeting concluded with the presentation of the Year 2011 awards to Mr. Amos Mathias, Landfill Operational Supervisor of Port Vila Municipal Council as the Best Counterpart for his dedication to management of Bouffa landfill in Port Vila, and to the team of Solomon Islands as the Best Team for their effort during 2011/2012.

2-3. Reverse logistics Workshop

Workshop on Improvement of Bulky Waste Recycling in the PICs through Reverse Logistics was held on 26th and 27th September 2012 in Suva, Fiji, co-organized by J-PRISM and the JICA Study Team. The objective of this workshop was to provide an opportunity for the stakeholders of both the waste management sector and the maritime sector to exchange information and opinion on bulky waste recycling with the aim of improving the bulky waste recycling activities in PICs through reverse logistics.

The main points of the workshop are summarized as follows: 1) Recyclable collection system, shipping route connections and terminal operations need to be improved. 2) A linkage between waste management sector and maritime sector need to be strengthened. 3) More and more roles of government are expected in terms of public awareness, legislation and environmental monitoring. All participants opinions were exchanged and the above issues were intensively discussed among all participants including government officials, recycling companies, Port Authorities, maritime transport companies of five countries (Fiji, Samoa, Tonga, Tuvalu and Vanuatu), YAMANAKA (a Japanese recycling company), JICA Tokyo Headquarter, JICA Fiji office, JICA Study Team, SPREP and J-PRISM experts . A fruitful recommendation was unanimously adopted at the end of this workshop. The JICA Study team is expected to make the most of the result of this workshop and to summarize the final report of their study by the end of year 2012.

2-4. Eco-Island Symposium 2012 in Okinawa

JICA co-organized a symposium in Okinawa with Okinawa Prefecture on 23rd May 2012 to focus on the management of waste and water in small islands. A number of delegates from PICs shared their experience the areas of waste and water management. Mr. Shiro Amano, Chief Advisor, J-PRISM presented the importance for promoting of 3Rs in PICs, followed by the presentation on the Post Disaster Waste Management case studies in Samoa and Fiji by Mr. Faafetai Sagapolutele, Assistant Chief Advisor, J-PRISM. Professor Sakurai of Okinawa University explained the important linkage between preservation of precious water resources and environmental changes/pollution in island countries. After the presentations, participants joined the two simultaneous group discussions on waste and water. Mr. David Sheppard, the Director-General of SPREP sympathized the concept of eco-islands in his keynote address at the symposium. A key conclusion from the Eco-Island Symposium was that "We are all islanders" highlighting the similarities of the challenges faced on island countries. More details are provided at the following webpage;
http://www.sprep.org/general-news/we-are-all-islanders-eco-island-symposium-in-japan
http://www.jica.go.jp/english/news/announcements/2012/20120516_01.html

2. In-Country Activities

FEDERARATED STATES OF MICRONESIA

	Expected Project Outputs
1	*National: The NSWMS and SSWMS in FSM are finalized*
2	*Kosrae: Integrated solid waste management is established*
3	*Pohnpei: Integrated solid waste management is established*
4	*Chuuk: Disposal site management is improved*
5	*Yap: Integrated solid waste management is established*

National Solid Waste Management Strategy (NSWMS) will be established soon after all the State Solid Waste Management Strategies (SSWMS) are developed. Some States have developed their plans through a series of SPREP/JICA joint workshop and are awaiting for the endorsement, while other State plans are complete or nearly finalized. J-AWARE* implemented a series of waste survey and obtained statistic data on waste management which has been reflected in the NSWMS/SSWMS. Many activities have been implemented by stakeholders in each State in order to improve waste collection system such as Time & Motion Study, trial of horn collection, survey of waste bins, survey of the current management of collection vehicles, and developing a collection plan.

In addition to the above, rehabilitation and new plan of construction on landfill are being developed.

(*J-AWARE stands for JICA's Activity on Waste Audit Research, which purpose is to develop the waste management statistic data throughout whole FSM)

FIJI

	Expected Project Outputs
1	*Follow-up of implementation of national 3R strategy*
2	*Training program on 3R is developed*

In 2012, J-PRISM expanded 3R activities within the Western Division such as Ba, Tavua and Rakiraki.

In Ba, the council decided to conduct activities such as 1) Market Compost, 2) School Program and 3) Home Compost promotion as the main components of their Action Plan under the J-PRISM. In order to understand basic idea of solid waste management, a lecture and an exercise on how to measure solid waste were conducted by JICA Expert in Ba in July 2012, followed by a study tour for officers from Ba Town Council and Tavua Town Council visiting Sigatoka to learn market waste compost. On the basic understanding and with the assistance of OISCA, Japanese NGO promoting composting in Sigatoka, Ba town started Market Composting from August 2012 and has been increasing the volume of good quality of compost.

In addition, with the assistance of an experienced council like Nadi Town Council, Ba, Tavua and Rakiraki together have started preparation work to start Clean School Program (Environmental education and waste minimization activities at school) in 2013.

With the initiative of the Western Divisional Office of Department of Environment, a joint monthly meeting inviting counterpart councils in the Western Division has been continuously organized since July 2012. At each meeting, councils share the progress of activities and lessons learnt through the past activities.

KIRIBATI

	Expected Project Outputs
1	*Household waste, especially organic waste is minimized through establishment and promotion of compost*
2	*Community awareness on solid waste is improve*

A shredder was provided to Tarawa in April 2012 and a shed for the shredder was constructed at Betio Landfill site in August 2012. Since then, Betio Town Council (BTC) has been operating the shredder to make chips from green waste. Some of the shredded chips are used for making compost. For the purpose of promoting the chips for composting, a workshop was organized to share information and exchange technical ideas for making compost with organizations and individuals who were interested in making compost.

BTC is now trying to secure a certain amount of green waste whilst trying to find users of the chips because the production amount of compost is quite limited due to the capacity of human resource and other materials.

At the same time, it is expected that waste minimization activities will be further promoted at school. The Clean School Program at primary schools

introduced by the Fiji counterparts (NTC) is now under preparation to be implemented from 2013.

MARSHALL ISLANDS

	Expected Project Outputs
1	*NSWMS is implemented*
2	*Recycling system is improved in Majuro*
3	*Composting system is improved in Majuro*
4	*School-based recycle system is introduced in Majuro*
5	*Solid waste management system is improved in Ebeye*

Majuro Atoll Waste Company (MAWC) is promoting the production and selling of the recycled material from wastes at landfill such as paper fuel (from waste paper), flowerpot (from old tires), and so on.

The activity of composting by MAWC in collaborate with stakeholders is very successful using green waste like copra with fish offal. The key issue now is how to increase the users of the compost product. One option might be considered to promote house gardening of vegetables for the improvement of nutrition to prevent of Non-communicable Diseases, which is the big health issue even in the Pacific.

The school-based recycling system is spreading among stakeholders. MAWC has already launching the environmental awareness activities in schools, and the "i-recycle*" system is to be introduced.

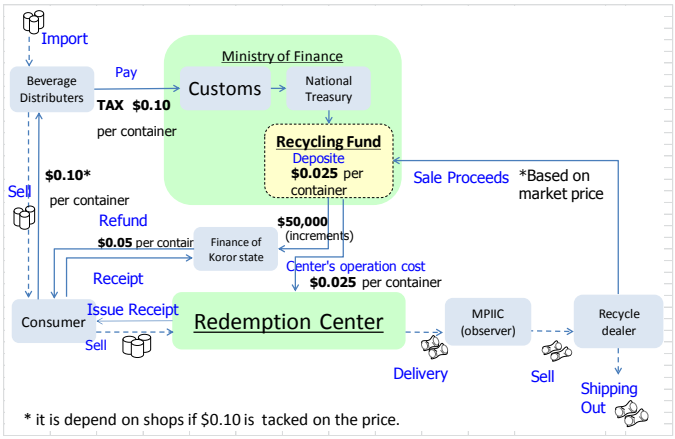
(* i-recycle is an aluminum recycling program created for the financial benefit of Guam's schools by NPO)

PALAU

	Expected Project Outputs
1	*Beverage container deposit fee program (sustainable financing system) is enhanced*
2	*Awareness raising on 3R is enhanced*
3	*Final landfill site is improved*
4	*Training program on 3R/recycling program is developed*

SPREP undertook a mission supported by J-PRISM at the request of the Environmental Quality Protection Board (EQPB) to provide advice on a variety of waste management issues such as National Solid Waste Management Plan-development of Action Plan 2012-2015, Beverage Container Recycling Program, Bulky Waste Recycling (vehicles, tires), Waste Disposal facilities, and hazardous wastes. Beverage Container Recycling Program in Palau is the most successful program in the Pacific. The details are below;

This program was approved in 2007 to tackle with the environmental issues like the lack of space for landfill and the adverse impact on the environmental resources by the growth of economic and tourism activities. The levy (US$ 0.10 charged to every imported container specified by the program) is deposited at the Recycle Fund under the Ministry of Finance, and US$ 0.05/container is refunded to the person who returns containers to the Redemption Center. The rest of US$ 0.05 is split into two, one for the operational cost for Redemption Center (US$0.025) and the other for deposit as the Recycle Fund. The refund from Redemption Center is secured by the Ministry of Finance, who provides US$50,000 as advance fee based on application from the Redemption Center. In July 2012, a contract was awarded to a private contractor to handle the shipment off island of these containers. To date, an estimated weight of containers redeemed by this program is about 90 tons of aluminum, metals, and plastic containers. Furthermore, the cost for the extension of the M - dock landfill as well as procurement of a heavy equipment is coming out of the revolving fund. This is one of the good examples as sustainable financial model in the Pacific.



(fig. Flow of the "Beverage Container Recycling Program" in Palau)

PAPUA NEW GUINEA

	Expected Project Outputs
1	*Solid waste disposal facility and operation is improved*
2	*Waste collection in Port Moresby is improved*
3	*Capacity of planning and monitoring of solid waste management in Port Moresby (NCDC) is increased*

Baruni landfill site is the biggest landfill in the Pacific. There are many issues such as open burning, no soil cover, and inhabitant of waste pickers with small children. National Capital District Commission (NCDC) has organized a special team (Baruni Design Team) under waste management unit for rehabilitation of Baruni landfill in collaborate with

University of Papua New Guinea (UPNG) and J-PRISM. The team drafted the future Design/Plan of Baruni and demonstrated a method of rehabilitation at the landfill.

NCDC is discussing the establishment of a Project Management Unit under NCDC to promote the J-PRISM activities. In year 2012, Department of National Planning and Monitoring (DNPM) recognized the importance of this project, and allocated budget of 1 million kina (equivalent to US$ 457,000) to NCDC for the improvement of waste management in Port Moresby.

SAMOA

	Expected Project Outputs
1	*Waste Minimization measures and practices are introduced and implemented at the urban areas*
2	*Tafaigata is operated as a regional waste disposal facility with improvements at Vaiaata in place.*
3	*Experiences and lessons learnt are shared across the region*

Two Time and Motion Studies completed in two sites. One study will be conducted in parallel with waste characterization survey.

Landfill management has been successful in Samoa. Tafaigata is one of the models of well-managed landfill in the Pacific. Currently, all facilities exist within the Tafaigata landfill area including the Ministry's Waste Management Office, semi-aerobic type landfill with newly installed weighbridge system, sludge treatment facility, healthcare waste incinerator, and recycling companies for treating different types of wastes.

They are also controlling waste picking by defining of the term of references and issuing of identification cards, and developing a land use plan for the 100acres of the Government land for waste management activities especially for recycling to formalize conditions for Tafaigata Public Private Partnership (PPP) with recyclers. Installation of weighbridge system at Tafaigata was completed in December 2012. The Ministry of Natural Resources and Environment accepted a number of missions from Pacific Islands Countries to share their experiences and lessons learnt.

In December 2012, J-PRISM in collaboration with MNRE (MNRE) successfully conducted a pilot project to clean up the debris generated by the cyclone as one of the post disaster waste management programs.

SOLOMON ISLANDS

	Expected Project Outputs
1	*3R activities are practiced in Honiara and Gizo*
2	*Waste disposal system is improved in Honiara and Gizo*
3	*Lessons and experiences learnt are disseminated in Solomon Islands*

Year 2011, Solomon Islands was awarded as the best Counterpart Team of Year 2011 at the 2nd Steering Committee Meeting held in SPC Headquarters, Noumea, New Caledonia on 4th September 2012. Two representatives were invited to present their activities, one representative from the Ministry of Environment, Climate Change, Disaster Management, & Meteorology (MECDM), and the other from Gizo Town Council (GTC). The main reason for the award is the teamwork in line with the good communication (regular meeting for J-PRISM activities, email circulation, newsletter) among counterparts and other stakeholders like school teachers, NGOs, private sector, JICA Solomon Islands Office, SPREP and J-PRISM Project Office.

Mr. Masayoshi Ogawa, J-PRISM Advisory Committee Member, visited Honiara and Gizo from 27th September to 4th October, 2012. He discussed with counterparts how to promote 3Rs, proper collection service, and awareness in school and communities.

J-PRISM Experts implemented the demonstration of rehabilitation in landfill and training of Time & Motion Study in Honiara and Gizo respectively. Gizo counterparts are enthusiastic to promote the improvement of collection, rehabilitation of landfill, recycling system and legislation to ban on the use and import of plastic bag in Gizo.

TONGA

	Expected Project Outputs
1	*The existing solid waste disposal facility and operation in Vava'u are improved*
2	*Solid waste collection service in Vava'u is improved*

3	*Framework and long-term solid waste management system in Vava'u are established*

The Project had commenced the rehabilitation works of Kalaka dumpsite in Vava'u since July 2012 and completed in February 2013. The launching ceremony and official site visit of the rehabilitated dumpsite was organized by the Ministry of Health, in collaboration with the Ministry of Lands, Environment, Climate Change and Natural Resources and the Governor's Office, on 8th February 2013. Deputy Prime Minister, Hon. Samiu Tuita Vaipulu, the Japanese Ambassador to Tonga, H.E Dr. Kazuchika Hamuro and other distinguished guests together with the members of Vava'u Solid Waste Management Steering Committee were invited to this event. It is expected that the counterpart in Vava'u will properly operate and maintain the rehabilitated Kalaka dump.

In 2012, Solid Waste Management Plan for Vava'u was also developed and recyclable collection was started in Vava'u. In 2013, improved domestic waste collection system will be considered on a full-scale basis according to the lessons learnt through the pilot project conducted.

(1. Karaka dump site, before rehabilitation)

(2. Karaka dump site, during rehabilitation)

(3. Karaka dump site, after rehabilitation)

TUVALU

	Expected Project Outputs
1	*Capacity of operators and field workers is increased through training.*
2	*Community awareness for waste minimization is enhanced*

Tuvalu participated in a country attachment program which was held in Lautoka, Fiji in August 2013. Two collection officers from Funafuti Kaupule (Council) attended the program to train waste collection system and techniques used in Lautoka.

VANUATU

	Expected Project Outputs
1	*Waste disposal amounts in the urban and peri-urban areas are reduced through minimization mechanisms*
2	*Existing waste disposal sites (Bouffa and Luganville) are improved*
3	*Capacities for waste management at the national and local government level are enhanced*

Bouffa landfill site in Port Vila, Vanuatu is one of the well-managed landfills in the Pacific. JICA had assisted its development before J-PRISM was launched, and then Port Vila Municipality has maintained its good operation since then. Bouffa is now the good model for proper management of dumpsite across the Pacific. Mr. Amos Mathias, supervisor at Bouffa landfill, was awarded the Best Counterpart of Year 2011. The certificate of award was handed over from Mr. Tsutomu Moriya, Resident Representative, JICA Vanuatu Office at the closing ceremony of "Klin Vanuatu Campaign 2012," on 14th November, which was organized in collaboration with Department of Environmental Protection and Conservation (DOE), Ministry of Lands and Natural Resources, Port Vila Municipality and JICA Vanuatu Office. J-PRISM also supported the campaign to provide the "Eco-Bag" to reduce the plastic bags.

In addition to the landfill management, upstream approaches like 3Rs are the key to minimize wastes in Vanuatu. DOE and Port Vila municipality are keen to include stakeholders such as the Ministry of Agriculture and NGO groups for promoting compost and private sectors for recycling of recyclables. They are also trying to push the establishment of legislation to charge the household waste with the system called "Yellow Bag Prepaid System." The key to the success will be the raising the awareness of communities to bring about changes in attitude for the better.

4. Special Feature on "3R"

J-PRISM Flash No.2 features "3R". 3Rs are an effective tool not only for waste management, but also for resource efficiency, and also stipulated in the Rio+20 outcome document as the context of sustainable development. Presented below are the reports from Kiribati, Fiji and Japan on various aspects of 3Rs.

4-1. Promoting recycling of organic waste from Kiribati

Reported by Ms. Keiko Kani, J-PRISM expert

In South Tarawa, more and more people started home gardening since Taiwan Technical Mission started Home Garden Project in 2011, but it is necessary to add nutrients in the soil in order to increase harvest because the soil of atolls is very poor. In Kiribati, the importation of chemical fertilizer is banned, so compost (both a solid and liquid) is the only choice left for people who grow vegetables.

Agriculture & Livestock Division, MELAD, and Taiwan Technical Mission actively promote compost. Because kitchen waste is usually provided for pigs as feed, main carbon source input materials are leaves and copra mill. Collecting a large amount of leaves is a bottleneck to increase the capacity of compost production.

On the other hand, more than 70% of generated waste in South Tarawa is organic waste, according to the survey of Urban Development Project by NZAID. A large volume of green waste, branches and leaves, is mixed with rubbish and disposed of at landfill sites every day. If green waste can be collected separately from rubbish and used as compost materials, this could make it possible for Kiribati to minimize disposed waste while increasing vegetable harvest. In cooperation with agricultural sectors, it is possible to establish a circulation system of organic waste.

Under J-PRISM in Kiribati, a shredder was installed at a shed in Betio Landfill site last September, and Betio Town Council, BTC, started shredder operation of green waste there.

MELAD started a separate collection system of rubbish, Green Bag Collection, March, 2012. If this collection system works well, council trucks would mainly collect green waste. At present, however, the participation rate of the collection in Betio is not high and most of collected green waste is mixed with rubbish. Still a certain amount of pruned trees is separately discharged along the street, and council trucks collect these trees several times every week and they are kept at a green waste storage place at a landfill site.

Pruned trees discharged along the street

A council truck collecting pruned trees

Pruned trees stored at a storage place at a landfill site

Shredder operation

Heaps of wood chips

BTC usually operates a shredder machine once a week and make one heap of wood chips ever time (0.6 – 0.7 m3). Generally shredded chips started to be decomposed naturally soon after the shredder operation if there is enough rainfall, so shredded chips are very good compost materials. In addition, chips can be used as mulch. In the first year, wood chips are provided free for those who come to the landfill site to pick them up.

As previously mentioned, in Kiribati demand of compost is high and there are a lot of potential users of wood chips. It is important for BTC to promote waste separation at home in order to increase the amount of collected pruned trees and shredded chips, while promoting the use of chips, in cooperation with agricultural sectors.

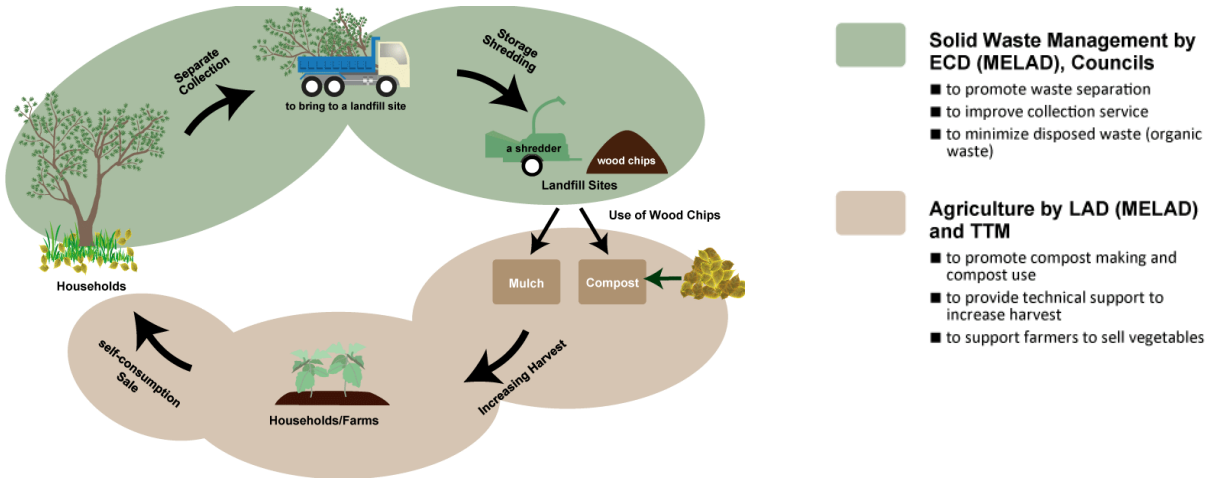


fig. Circulating System on organic waste recycling (by Ms. Keiko Kani)

4-2. Sharing the Experience of 3R Activities in Lautoka, Fiji

Reported by Mr. Shalend Prem Singh, Senior Health Inspector, Lautoka City Council

Lautoka City like any other urban centre in the Pacific region is particularly concerned with Solid Waste Management with the potential to cause negative impacts on the fragile environment, tourism, trade, food supplies, public health and severely place constraint on the existing limited resources. Thus, implementation of waste minimization and 3R Promotion is indispensable towards addressing these challenges and ensuring a sustainable Fiji.

Hence, Lautoka City Council in partnership with Department of Environment implemented 3R initiatives under the technical cooperation project of JICA namely the "3R Project", "J-PRSIM" and "Shibushi Model Project". The project focuses in strengthening the capacity of counterpart staffs to promote waste minimization.

Comprehensive approach was adopted under these noble projects whereby notable activities conducted included (i) conducting baseline surveys to grasp the existing situation and issues relating to solid waste management, (ii) developing Solid Waste Management Plan (iii) implementing pilot projects to examine the applicability, sustainability and expandability of waste minimization practices such as home-composting, market waste composting, clean schools program, separate collection for recyclables, and green waste collection and chipping, (iv) improving the operation and management of the Vunato Disposal Site, and (v) developing a wide range of educational tools.

The recycling rate during the inception phase of the project (2008) was 5.9 % in Lautoka City. As a result of the 3R Project, the recycling rates were increased to 13.1% in Lautoka City as of 2012.

The active engagement and participation of citizens is indispensable towards implementing successful 3Rs initiatives. It was also realized that house to house visits, community meetings and regular media awareness were effective tools in promoting 3Rs. Implementation of Clean Schools Program is also vital to target children in creating awareness as they are regarded as excellent agents of change particularly as this activity can be conducted with minimal resources.

One of the major challenges of the project has been the relatively small recycling market and low value for recyclables. Thus, it becomes very difficult to recycle waste in Fiji. Bringing about behavioral change amongst citizens is also a challenge since 3Rs is a new concept and requires voluntarily participation of the citizens to embrace 3R practices. Hence, 3R legislation is highly needed to compel the citizens to engage and practice 3Rs.

It has been realized that implementing 3Rs require significant investment in terms of human resource, training, equipments and other costs. However, implementation of 3R activities shall be regarded as an investment and seen as municipality's corporate responsibility towards preserving and conserving the environment for a sustainable future.

Thus considering the above issues and limited human resources of council, the promotion of the 3Rs has been expanded gradually to 32% of the Lautoka City population.

4-3. Why we need "National 3R Strategies"

*Reported by Yasuhiko Hotta, PhD, Deputy Director/Senior Policy Analyst, Sustainable Consumption and Production Group, Institute for Global Environmental Strategies (IGES)**

When I walk along a beach of my hometown, Kamakura, in Japan, I see many objects casted up along the sandy beach such as seashells of large and small, seaweeds of many kind, drifted tree brunches, sea glass shining

under the morning sun, broken pieces of China imported in more than 700 years ago, or even coconut shells. At the same time, I have started to see various kinds of plastic wastes, PET bottles, or wasted plastic bags since around 20 years ago.

Increase in waste generation in modern society has been linked with economic development and consumption of resources and products. Also, changes in lifestyle have resulted in the way and contents of consumption thus resulted in changes in variety of wastes, often increasing variety of difficult-to-treat wastes. Once small pieces of waste may be able to be returned to the nature and be back to the nature, but change in lifestyle and mass consumption has introduced new products in a continuous manner in market. Thus, mass quantity of difficult-to-treat and hazardous wastes have stepped into natural landscape as if they have been there from the beginning. Despite of economic development and change in life style, ways of waste treatment and management in a society cannot be spontaneously changed along increasing generation and changing varieties of wastes. Thus, we need a policy to facilitate a response to increasing challenges posed by modern waste issues.

The 3Rs is an environmental policy concept to reduce and prevention of waste generation, reuse wasted products, and recycle as a material. 3R approach aims to reduce environmental impact by reducing waste for final treatment. Considering expected increasing resource demands in the future, the approach can be effective to achieve efficient resource utilization. For effective implementation of this approach, household, community, and local government are key players. In addition, to respond to waste generation in a large scale and changes in variety of wastes, the role of national government is important to support each initiative by household, community and local governments.

In collaboration with United Nations organizations, Institute for Global Environmental Strategies has supported developing national 3R strategies in developing Asian countries. Based on this experience, the following effects are expected from development of national 3R strategy.

1) Setting clear objectives and targets. This would enable to implement 3R policies in more systematic manner by reviewing at certain intervals whether these objectives and targets are implemented and achieved.

2) Contextualizing 3R policy not only under waste management strategy but wider context of developmental strategy. This would help to prioritize waste management and 3R policies in the overall national policy priorities. Also, this would be useful to facilitate collaboration with governmental agencies and departments which is not in charge of waste management.

3) Facilitating collaboration of central government and local governments. Towards this end, collection and analysis of data (waste generation, composition, destination of waste and recyclables, major stakeholders in waste treatment and recycling) at local level is essential. Based on the analysis of such data, central government shall show priorities in the 3R policies at national level.

4) Showing role sharing of different stakeholders and setting up a forum to exchange opinions among them in a regular basis. Since achieving 3Rs is not only about waste management but related to sustainable consumption and production, it is crucial to introduce a mechanism to exchange opinions among key stakeholders on the 3Rs such as local authorities, product importer, producer, recyclers, retailers, waste collectors, and consumers.

5) Establishing facility and infrastructure building to sustain 3R-related policy mechanisms. Source separation is a method but not the goal to promote the 3Rs. By evaluating what kind of treatment and recycling would be more effective and environmentally-sound, it is necessary to prepare required infrastructure and institutional mechanisms to sustain 3R-related policy.

6) Utilize national 3R strategy for strategic collaboration with developmental aid projects. Many donors provide various aid programmes with various intentions and interest behind (in relation to climate co-benefit, promotion of recycling technologies and industries, or urban infrastructure development). By development of national 3R strategy, recipient countries are expected to link their national 3R promotion to development aid projects in a strategic manner.

The above-mentioned 3R strategy shall keep in mind of a) establishing mechanism for collection of recyclables, b) development of and collaboration with industries and business to manage and treat recyclables, and c) formation of or access to the market for merchandizing recycled resources and products.

The author expects J-PRISM would contribute greatly to develop institutions and mechanisms for preventing overflow of modern wastes into beautiful sandy beaches, rain forests, and coral reefs of South Pacific Islands.

* *The Institute for Global Environmental Strategies (IGES), established under an initiative of the Japanese government in 1998, is an international research institute conducting practical and innovative research for realizing sustainable development in the Asia-Pacific region. Since 2005, IGES has been supporting the promotion of 3R policy in developing Asia in collaboration with UN organizations and Ministry of the Environment of Japan.*

4-4. Regional and Global Trends towards Sound Material-Cycle Society: 3R Initiative and the Regional 3R Forum in Asia

Reported by Mr. Jun Daito, Office of Sound Material-Cycle Society, Waste Management and Recycling Department, Ministry of the Environment Japan

The origin of the Regional 3R Forum in Asia dates back to 2004, when the then Japanese P.M. Koizumi proposed the 3R Initiative at the G8 Sea Island Summit. The 3R Initiative aims to promote the 3Rs (i.e. reduce, reuse and recycle) globally to build a sound material-cycle society through the effective use of resources. The Inaugural Meeting of the Regional 3R Forum in Asia was held in 2009 in Tokyo. The Regional 3R Forum has played a role to promote high-level policy dialogues, facilitate cooperation to implement 3R projects, as well as provide a platform to develop multilayered networks of stakeholders, share knowledge and experiences, and proliferate national 3R strategies. Thanks to the periodical meetings of the Forum, the significance of the 3Rs has gradually gained recognition in Asian countries over the years. The latest Third Meeting of the Forum addressed 3R technologies towards Green Economy and contributed to enhanced regional input to UNCSD/Rio+20. Rio+20's Outcome responsively commits to promote the 3Rs by recognizing the importance of implementation of policies for environmentally sound waste management. It also calls for the development and enforcement of comprehensive national and local waste management policies, strategies, laws and regulations.

Office of Sound Material-Cycle Society, Ministry of the Environment Japan, has made every effort to establish a sound material-cycle society locally, nationally and internationally by (re)developing policies and institutional frameworks under the Fundamental Plan and implementing projects regarding waste management and recycling. Once having worked for the Department of Environment Fiji in 2004, Jun Daito is now engaged in international affairs to promote the 3Rs.

5. Plan for 2013/2014 (January 2013-March 2014)

	Activity/Event	Country
January - March 2013	Joint Coordinating Committee (JCC) Meeting at National Level in each country	All Countries
February	Regional Training on Landfill Management in Yap	Federated States of Micronesia (Yap, Chuuk, Pohnpei and Kosrae) and Palau
March	The High-Level Fourth Regional 3R Forum in Asia, Ha noi, Viet Nam	All countries
April - May	Start dispatching of Japanese Experts to each country	All countries
July	Training Program in Japan (Kobe) Solid Waste Management	Several countries in the region are to be invited
July - September	Training Program in Japan (Kitakyushu) on Waste Management Technique	Fiji, Marshall Islands, Nauru, Papua New Guinea, Samoa, Tonga, Tuvalu, and Vanuatu
undecided	Training Program in Japan on the JICA Partnership Program Project for "Promotion of Shibushi Model (Waste Minimization without Incineration) from the Republic of the Fiji Islands to Pacific Island Countries"	Fiji, Federated States of Micronesia, Solomon Islands, and Vanuatu
August - September	Mid-term Review for the J-PRISM to be conducted by JICA Headquarters	All countries
September	3rd Steering Committee Meeting in Apia, Samoa	All countries
November	Regional Training on Container Deposit Program in Palau	Palau, Federated States of Micronesia, Marshall Islands and other specific countries
undecided	Training of Trainers on Work Adjustment for Recycling and Managing Waste (WARM) in Fiji in collaboration with ILO	Several countries in the region are to be invited
undecided	Regional Training on Landfill Management	Several countries in the region are to be invited

6. About our project

Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM), the 5-year, regional project implemented by the Japan International Cooperation Agency (JICA) in partnership with the Secretariat of the Pacific Regional Environment Programme (SPREP) officially commenced in February 2011. The purpose of J-PRISM is capacity development on waste management in the eleven (11) member countries* in the Pacific.

* Member countries; (Federated States of Micronesia, Republic of the Fiji Islands, Republic of Kiribati, Republic of Marshall Islands, Republic of Palau, Independent State of Papua New Guinea, Independent State of Samoa, Solomon Islands, Kingdom of Tonga, Tuvalu and Republic of Vanuatu)

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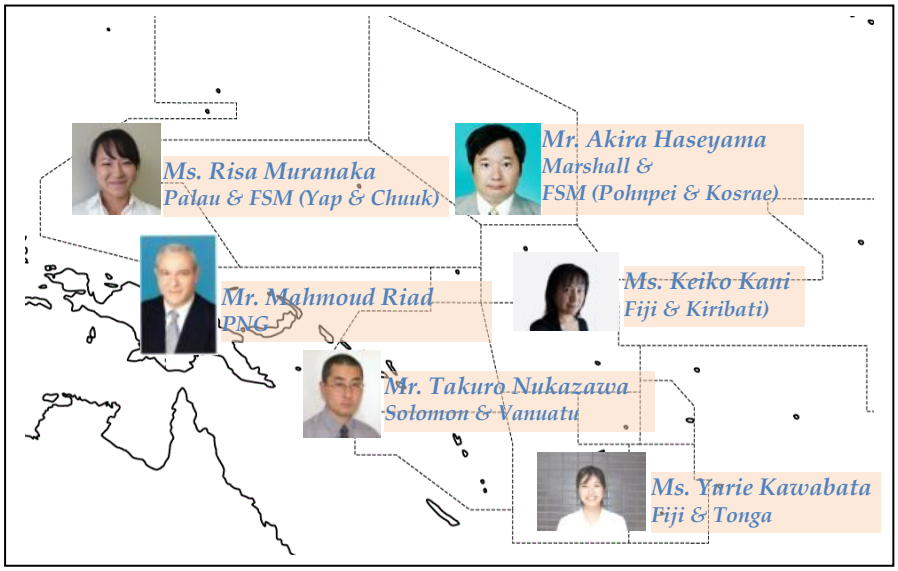
- ***Member*** (as of January 2013)

Mr. Shiro Amano : Chief Advisor
Mr. Faafetai Sagapolutele : JICA Local Expert (Solid Waste Management)
Mr. Hiromichi Kano : Project Coordinator
Mr. Makoto Tsukiji : Project Coordinator
Ms. Priscilla Levy : Project Assistant
For other JICA experts in each county : Please refer to the map below.

- ***SPREP***

Ms. Esther Richards : Solid Waste Management Adviser

- ***J-PRISM Experts in 2012***



Next J-PRISM Flash "No.3" features activities in Micronesian region. Don't miss it!!

J-PRISM FLASH
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