



FLASH No.9

Featuring activities in Pacific region



By Ms. Laisani Lewanavanua, Senior Environment Officer
(Waste Management & Pollution Control)

The Ministry of Local Government, Housing and Environment of Fiji launched the Home Composting Subsidy Program and the Clean School Program in April, 2015 for implementation by the thirteen Municipal Councils responsible for waste management around the various divisions in the country.

The Home Composting Subsidy Program and the Clean School Program are two of the 3Rs (Reduce, Reuse, Recycle) activities under the Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM). J-PRISM in Fiji commenced in 2011 and will end in February

2016 initially targeted a total of seven municipal councils that included Suva City Council, Sigatoka Town Council, Nadi Town Council, Lautoka City Council, Ba Town Council, Tavua Town Council and Rakiraki Town Council. The Ministry has however now taken the initiative to promote the Home Composting Subsidy Program and the Clean School Program in all 13 council areas, which will now also include the remaining six Councils of Nasinu Town Council, Nausori Town Council, Lami Town Council, Levuka Town Council, Savusavu Town Council and Labasa Town Council.

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Launching of the Home Composting Subsidy Program and Clean School Program by Honorable Minister of Environment Parveen Bala, JICA Residential Representative Mr. Hiroyuki Sawada and Ministry Education Divisional Education Officer Mr. Lorima Voravora.

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The workshop for local waste management experts

Held on the 27th May—3rd June 2015 at the Okinawa Training Center, Japan under the Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM)

*By Mr. Faafetai Sagapolutele,
Assistant Chief Advisor, J-PRISM*

Waste management officials from the Pacific islands have gathered in Japan at the JICA Training Centre at Okinawa from the 27th May to the 3rd June 2015, not for the usual training purpose, but for the development of a Waste Guidebook. Unlike the usual capacity building workshops coordinated and implemented by JICA, which have provided training for the Pacific islands for several years, this particular gathering for waste officials from the Federal States of Micronesia (FSM), Fiji, Palau, Papua New Guinea (PNG), Tonga and Vanuatu was the beginning of something special for waste management in the Pacific region.

Fifteen government officials at the national and municipal levels have engaged in the development of a Waste Guidebook under the guidance of the J-PRISM Chief Advisor, Mr. Shiro Amano. According to Mr. Amano, it is one of the expected outputs of the J-PRISM project to review and rewrite the WHO Waste Guidebook produced in 1999, following earlier discussions and approval by the producers and writers of the book. Professor Sakurai as one of the writers has highly supported the initiative and also made a suggestion for local counterparts involved in the implementation of J-PRISM activities to rewrite the book by themselves. According to Mr. Amano, "It is a great opportunity for our local counterparts to document all the good practices including the lessons learnt from their past experiences whether good or bad as future guidance to Pacific islands practitioners." Mr. Shalend Singh of Lautoka City Council in Fiji stated that the unique opportunity given to him to contribute in the development of this Pacific Waste Guidebook is a rare chance not to be missed. He has been assigned to contribute on a number of areas like solid waste management planning and others. Ms. Vivian Morofa of National Capital District Commission, Papua New Guinea has appreciated the great opportunity for her to become an author of one of the articles in the proposed Solid Waste Guidebook.

It is the same feeling of excitement shared by the 15 Pacific islands waste management officials.



However, the task ahead of them is challenging given the remaining work for them to complete in order for their articles to be presented in a form that is acceptable for a Guidebook. Professor Sakurai based on his past vast experiences on writing many sections of the WHO Guidebook 1999, has indicated that it is important for a Guidebook to be clearly written in a way for practitioners to easily understand and follow the procedures of performing a waste management task, whether it is for a waste generation and composition survey or rehabilitating of an existing dumpsite. He stressed further the importance of having clear and nice photos to be included in every procedure of a task. Mr. Amano has stated that the workshop in Okinawa was for the identified officials to make presentations on their articles and at the same time for the rest of the group including Professor Sakurai to make comments and suggestions for improvement. The remaining task now according to Mr. Amano is for them to go back and work on their articles and to complete them based on the recommendations made during the Okinawa workshop. Mr. Amano highlighted the challenge for them due to lots of other work commitments in their home countries, as some officers are responsible for several areas including non-waste management tasks under their official responsibilities.

The development of this Pacific Waste Guidebook is the perfect platform for building a network for the Pacific islands' local waste experts. This will further develop close collaboration between the islands and within the region for future south to south and tri-angular cooperation for sharing of knowledge and skills especially the usual limited human resources. "I am very excited about this important task and I would not have asked for a better way to retire from my long years of involvement in the Pacific Islands" comment-

New strategy for managing wastes and pollution up for endorsement

By Ms. Ma Bella Guinto, SPREP, Solid Waste Management Adviser

The newly-drafted Pacific Regional Waste and Pollution Management Strategy, also known as Cleaner Pacific 2025, will be presented to the Member countries of the Secretariat of the Pacific Regional Environment Programme (SPREP) for endorsement during its annual meeting in Apia from the 22nd to the 24th September 2015. The strategy will provide direction in managing waste and pollution in the Pacific region until 2025.

The development of this strategy was mainly supported by Japan International Cooperation Agency (JICA). The draft document was subjected to four levels of consultation, three at the sub-Regional level and one at the Regional level.

SPREP, in collaboration with the Japanese Technical Cooperation Project for Promotion of Regional Initiatives on Solid Waste Management in Pacific Island Countries (J-PRISM) conducted workshops to allow inputs from the countries and address real issues affecting the waste and pollution sector in the Pacific. The new Strategy will be a departure from the current Pacific Regional Solid Waste Strategy which will expire in 2015. The new strategy incorporates the lessons learnt from the previous relevant regional strategies with the aim of improving implementation of waste management into the future. A new feature is the inclusion of hazardous wastes and pollution control into an



integrated Strategy.

The intention is to also streamline monitoring and reporting efforts in assessing progress of waste and pollution management initiatives. The document identified four strategic goals to achieve the overall vision of a Cleaner Pacific environment by 2025. The goals are aimed towards prevention and minimisation of waste, chemical and pollutant (WCP) issues which will likely impact human and environmental health. Fifteen strategic actions are recommended to support the

achievement of the strategic goals. These actions will strengthen institutional capacity, promote public private partnerships, implement sustainable best practices in WCP management, develop human capacity, improve dissemination of outcomes and experiences in WCP management, and promote regional

and national cooperation. Specific activities are formulated to ensure proper implementation of the Strategy. These activities were scrutinised and further developed by participating countries who also identified priority activities appropriate for them. The new strategy is expected to be released following endorsement at the SPREP Meeting. For detailed information on the contents of the draft Strategy, go to the SPREP website:

www.sprep.org/attachments/draft/Cleaner.Pacific.2025 RegionalWastePollutionStrategy. Draft.pdf

www.sprep.org/attachments/draft/cleaner Pacific 2025 ImplementationPlan. Draft.pdf

The workshop for local waste management experts

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ed Mr. Amano. He has been working in the region through the Secretariat of the Pacific Regional Environment Programme (SPREP) during 2001 to 2004 and 2011 to 2014 as well as during a number of associated visits and projects in the islands between his two assignment periods. Mr. Amano has indicated that the selected waste officials have been working very hard on implementing various successful activities in the past and he would like them to write and document their achievements, including challenges and issues they have faced. This would provide good information for future waste management practitioners to guide them in the implementation of similar waste activities. For these local

counterparts to write on their experiences and document the lessons learnt during their projects in the Pacific Guidebook is significant according to Professor Sakurai. The situations in the Pacific islands are similar in terms of issues and challenges and thus sharing the experiences and lessons learnt is very valuable.

In recent years, several projects coming into the region have involved consultants from developed nations and the promotion of implementing western concepts and ideas that are not practical and workable in the islands. Developing local waste management experts in the region who understand and know very well the island's situation is an alternative option, which is largely supported by current

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The transformation of Baruni

By Mr. Joshua Sam, National Capital District Commission, PNG

The Baruni dump site has always been a problematic challenge for Port Moresby. Its operation as an open dump created a number of issues that gave it the reputation of being the city's worst environmental disaster.

Firstly NCDC, the local authority, had very minimal control over the operation of the dump. Daily activities were left to the control of hostile waste pickers and the poorly trained and equipped operator of a single dozer. Waste pickers would pick through waste and set fire to what was unsalvageable. This resulted in the dump being continuously covered by smoke, dust and other particulate matter from open fires. The dozer simply pushed and shoved waste to the edges of the dump to create tipping space for incoming waste. There was no compaction of waste and no soil cover. Such hazardous operation of the site resulted in a significant vermin issue. The odor was unbearable and the safety of dump users was put at risk. Major emissions such as landfill gas and leachate were never managed and treated. During heavy downpours the site became a huge pool of leachate, the muddy conditions made access into the dump nearly impossible and the knock on effect was clearly felt in the collection system. Since vehicles could not enter the dump to dispose of waste, collection could not be maintained in the scheduled areas thus there were instances of uncollected waste for up to two weeks or more.

Indeed the management of Baruni seemed so insurmountable that NCDC considered closing the dump and relocating waste disposal to a new site. A number of visiting waste management experts from developed countries also shared this view. Thanks to J-PRISM the same cannot be said of Baruni anymore. Today Port Moresby can boast of having a landfill that is comparable to most developed countries, something authorities and residents once thought to be impossible. The transformation of Baruni has not been an easy journey and it is far from over. During August 2014 work commenced in earnest after the signing of a contract to undertake the rehabilitation project between NCDC and Kana Construction Limited. All tender and contract documents including bill of quantities, construction schedule and landfill design were prepared by NCDC with the able

assistance of JICA Experts. Immediate works included clearing the existing waste material onsite to create the first two cells of the landfill. There was also an urgent need to create a temporary disposal site to cater for ongoing daily waste disposal and so one was constructed toward the rear end of the existing site by the project team and contractor.

After almost ten months of work, Cell 1 of the landfill was completed and officially commissioned by the Honorable Governor Parkop and His Excellency Ambassador Matsumoto. The highlight of the event was the serving of lunch at Baruni, a most unlikely gesture in the past.

Although a number of design and build problems were encountered during the construction of Cell 1, it nonetheless contained all-important features of an engineered semi-aerobic landfill. It has a liner system of compacted clay to prevent the infiltration of leachate into groundwater and has a network of pipes to collect leachate. The cell also has gas-venting pipes to introduce air into the waste layers to accelerate waste decomposition as well as convert methane into carbon dioxide for release into the atmosphere. Furthermore, a leachate pond was constructed to collect the leachate generated within the landfill.

While a number of works remain to complete the project, the results achieved so far are quite outstanding when compared to the site's former condition. The site no longer has open fires and vermin issues are a thing of the past. The few fires that have been ignited to date have been successfully

managed and extinguished by NCDC and the contractor. Waste picking is now more controlled and operations are orderly most of the time. NCDC now enjoys a cordial relationship with the surrounding community and works in collaboration with them on a number of issues. The transformation of Baruni demonstrates what is possible when people have a vision and unite to pursue their dream. Indeed it has been a long held desire to transform Baruni into a modern landfill and thanks to J-PRISM that goal is being realized.

Though it is still to be fully achieved, the lessons learnt will ensure that the momentum is maintained. We are confident that the knowledge and skills acquired through the implementation of the project will enable us to tackle other challenges posed by the growing amounts and complexity of waste in the city.



Fiji's Home Composting Subsidy Program and Clean School Program

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The Home Composting Subsidy Program and the Clean School Program are both fully funded by the Ministry and will run on a pilot basis for this year. Following the launching ceremony, the Ministry through, the Department of Environment with pioneer council counterparts, additionally organized a technical training session that provided further tips for successfully implementing the two programs.

Home Compost Subsidy Program:

Organic waste is a major component of the total waste volume generated in Fiji (more than 60%), therefore, it is critical to reduce the amount of kitchen and green waste.

Additionally, open burning of waste and littering is a major environmental and health concern throughout Fiji as it poses a serious public health nuisance, causes environmental pollution and presents a fire risk to properties.

Utilizing organic waste generated from our kitchens in a way that will be beneficial to the environment can easily be achieved through composting. Home composting is the most effective way of reducing more than 25% of waste generated in the home and is the best solution to combat open burning of such waste. It is by far regarded as the environmental best practice for reducing organic waste. Compost, which is a final product of the composting process, can also be used as manure for home gardening.

Lautoka City Council and Nadi Town Council, with the assistance of JICA-funded 3Rs Project, have been promoting the Home Composting Subsidy Program and home composting activities in their municipal areas since the year 2010. Suva City Council has also been running the Subsidy Program since Dec. 2012. More than 970 compost bins in total have been sold at the subsidized price by three councils as of April, 2015. This subsidy program still exists within the 3 municipal councils [Lautoka, Nadi and Suva] and this year the Ministry has noted a big increase in demand, which has resulted in all councils now coming on board in support of this initiative.

In order to encourage the citizens to recycle organic waste by practicing home composting across the nation, the Ministry, with the assistance of J-PRISM, established a National Subsidy Program for Home Composting. The subsidy program will be implemented in phases and when the demand arises. The Ministry has provided a certain number of compost bins to all councils, and interested ratepayers will be able to purchase the bins at the subsidized price of F\$30, the normal price being F\$115, by visiting their nearest council office.



Monitoring of Home Composting (Lautoka City Council).

Financial Assistance for Clean School Program:

In addition, the Ministry will be providing financial support to the Clean School Program, which started implementation in all 13 council areas in April, 2015.

The Clean School Program was initiated by Nadi Town Council in the year 2010, and has been disseminated to other councils, especially to councils in the western division of Fiji through JICA's Project. The Program aims to provide the opportunity for schools to start proper waste management and to create awareness of the concept of 3Rs at schools, home and communities. The Program has commenced its implementation at targeted schools using existing resources within the schools' capacities, and councils and related stakeholders will provide technical advice to schools through regular monitoring activities. The government's financial support will encourage councils to actively implement the program.



Nadi Town School Children showing the Clean School Program Manual during the Launch Program, April, 2015.

Monitoring

In order to monitor the progress of activities being implemented by each council, the Department of Environment organizes a J-PRISM joint meeting on a quarterly basis with all councils invited.

This kind of meeting has been conducted since the 3R/J-PRISM project started, and in addition to being valuable for monitoring progress has been to be extremely valuable in providing a shared learning experience amongst councils and the Department.



JPRISM Joint Meeting Group Photo, July, 2015

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Fiji's Home Composting Subsidy Program and Clean School Program

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Sustainability

Based on the promising progress made so far, the Ministry will develop a strategy to ensure the continuation and sustainability of these two programs will continue on from next year and beyond into the future.

The Government through the Ministry is also working towards the finalization of a five year draft National 3Rs Policy which will provide a national platform in addressing the issue of solid waste management and minimization in the country. Solid waste management is a pressing issue that requires concerted action; waste is generated every day, by everyone who participates in a 'modern' way of life. The Green Growth Framework for Fiji notes that 'waste management in Fiji is characterized by uncoordinated and ineffective waste management systems at all levels, continued use of unsanitary dumps for [some] urban waste, the absence of an organized

rural waste management system, a low level of civic pride which is exhibited through indiscriminate public littering and ineffective enforcement of existing laws. The draft policy is intended to address exactly these problems.



Improvement of Disposal site, Sigatoka Town

The workshop for local waste management experts

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JICA technical cooperation projects in the world including J-PRISM project in the Pacific region. The completion of the Pacific Waste Guidebook developed by project counterparts based on their experiences and lessons learnt will be the first of its kind in the region and perhaps the world. It will promote local expertise in the management of waste and will contribute to building regional local capacity for the



sustainable management of waste in the region in line with the overall purpose and goal of J-PRISM.

About our Project

Japanese Technical Corporation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM) the 5years, regional project implemented by the Japan International Corporation 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 Fiji, 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.) * Cook Islands, Nauru, and Niue are associate members.

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