



FLASH No.8

Featuring activities in Pacific region

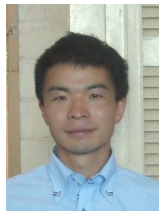
1. Disaster Waste Management project in Vanuatu



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The tropical cyclone called Pam, hit Vanuatu at night in March 13, 2015, which has given the grave damage on the whole city of Port Vila. Due to the strong wind and rain, many houses and trees fell down and the people suffered from the flood in the city, all of which produced a lot of disaster waste, especially trees and wood.

It was an urgent need to treat the disaster waste properly. Since the waste amount was huge, it could be the potential incoming waste to the landfill, which would cause its limited space to be occupied quickly, its operation to be difficult, and the cost of its operation to be higher. In addition, these wastes could hinder the relief and reconstruction efforts by donors and also local communities, and could cause the public health risk like vector-borne diseases, due to the physical obstruction of waterway. In this context, the Vanuatu J-PRISM team implemented a disaster waste management project under the initiative of



Port Vila Municipality from March 16 to 21 (6 days). The team hired 12 workers including 3 chain saw operators and 3 trucks, and organized a chain saw team who cut deposited

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logs and tree branches to manageable sizes (50 cm length). All the branches were piled up at the specific area in the community to be used such as firewood, etc. Moreover, the green waste such as leaves and branches were brought to an organic farming company, called the Rainbow Garden, where they apply it for the composting. At the same time, this project enhanced the public awareness through the communication between the communities and Port Vila Municipality on the topic of proper disaster waste separation and 3R concepts. One of the lessons learnt from this project was the better utilization of disaster waste: fallen trees for firewood and green waste for composting. This project intended to establish the mechanism to utilize the disaster waste as much as



Before the collection of green waste



After the collection of green waste

possible. The fallen trees generated by the cyclone was cut down with the chain saws and provided for the use of firewood. After the cyclone, some trees were nearly fallen down on the houses and others blocked the streets, which was improved visibly by the chain saw team. The residents expressed appreciation towards the visible change in their communities, saying “This JICA project helped a lot to take away the waste from our community”, “The fallen trees are very good firewood and thanks to the support of the chain saw teams, now we can use it for the firewood”. The team also could reduce the incoming waste into the landfill to a great extent: the amount brought to Rainbow Garden was 27.1 ton per day and 162.4 ton in total. If all this waste had been taken to the Bouffa landfill, the amount of incoming waste would had been increased by 1.8 times (32 ton + 27.1 ton per day), compared to the condition before the cyclone. The collaboration with a local composting company was

another good practice.

The owners of the Rainbow Garden were supportive to this project, whose collaboration is expected to be continued in the future.

Of course, it is necessary to continue the collection of green waste at the communities, because the needs for the waste collection at the communities are still high and green waste remains abandoned along the roads in some areas. Now Port Villa Municipal Council (PVMC) is heading to next phase to manage disaster waste in collaboration with J-PRISM and UNDP.

The fast-track judge is required for the post disaster management, and this cyclone was also the case: immediate actions were needed. Based on this experience, a guideline or a plan for disaster waste management in Vanuatu or in Pacific Islands should be prepared, which will contribute to sharing of experiences and knowledge including the proactive measures.

2. SPREP calls for a more planned approach to disaster waste management in the Pacific region

Increasingly frequent disaster events are partly crippling the economies of Pacific Island countries, and the Secretariat of the Pacific Regional Environment Programme (SPREP) has partnered with the Australian Department of Foreign Affairs and Trade (DFAT) to help address this regional issue.

To do this, SPREP has completed implementation of an integrated Climate Change Adaptation Initiative (ICCAI) project to build resilience to climate change in the waste management sector.

A key project outcome is the climate proofing of the Namara Landfill in Labasa, Fiji. The Namara Landfill has been re-engineered to use semi-aerobic methods of landfilling (the Fukuoka method) with proper drainage system, waste containment cells, leachate reticulation and collection system, and gas ventilation systems. This effectively separates the landfill from the nearby mangrove areas and protects them from toxic spillages. The re-engineering of the landfill was supervised by the J-PRISM expert, Mr. Faafetai Sagapolutele, and is the first time the Fukuoka method of landfilling has been used in a low-lying area.

The re-engineered landfill is also equipped with a dedicated disaster waste cell which can also be used as staging area for

recovery of resources that are produced in most disaster situations. This will significantly reduce pressure on the landfill space during future disaster events.

Another significant project output was the production of draft National Guidelines for Disaster Waste Management for Fiji. The draft National Guidelines were presented to disaster management practitioners of Fiji during a workshop in March 2015. The Guidelines present a planned approach to disaster waste management and will be tabled in the next Fiji National Disaster Management Council Meeting for endorsement and are expected to be incorporated in Fiji's Disaster Preparedness Plan. The National Disaster Waste Management Guidelines are expected to be disseminated around the region and result in a more planned approach to

regional disaster management.

The timeliness and importance of the new Guidelines was highlighted by the recent cyclones which devastated Vanuatu and FSM. Some of the key points considered in the National Disaster Waste Management Guidelines include:

- a) The importance of the timely formulation of a Disaster Waste Management Plan which should be geared towards volume reduction and diversion of disaster wastes away from the landfill.
- b) The allocation of temporary storage and disposal sites that minimise environmental, economic and social impacts.
- c) Pre-disaster determination of the potential quantities of asbestos that might be generated during disaster events to allow for planned actions for safe handling. Disaster asbestos waste management should only be undertaken by trained and properly equipped personnel.
- d) The importance of pre-disaster training for emergency workers. Waste handlers should be able to recognize the dangers of dealing with hazardous wastes.
- e) The importance of rapidly clearing disaster debris that will save lives and protect the health and safety of the people. Removal of debris for the orderly recovery effort should come in as a second priority.

The National Disaster Waste Management Guidelines are expected to be disseminated around the region and result in a more planned approach to regional disaster management.

The integrated Climate Change Adaptation Initiative (ICCAI) project was completed in March 2015. For more information about the guidelines, please contact wasteteam@sprep.org.

3. Solid Waste Management collection in Vava’u, Tonga



Ms. Mele ufui Finau
Environment Officer,
Vava’u Paradise

The Garbage SWM Collection in Vava’u is on the way half improvement unlike the past. My name is Mele Finau (Environment Officer) from Great Vava’u Paradise. Clean School Program (CSP) approaches when the Based-Wastes Community Collection started. On this combination, it is believed that we invite everyone in the community to take ownership on this task.

Our role as officers, I was looking after the CSP activities and Emeline Laumanu (OIC Vava’u) looking after our community, lastly is Manase Malua from Ministry of Health taking care of Kalaka Landfill. All our skills and knowledge with experiences we share together the same initiatives that work best for each community. Commitment is our main power that even how tough dealing with people but we still push schools and communities to take ownership.

In carrying out this Garbage Collection System here in Vava’u, it is easier, cost less, sustainable and courage of commitment. For some Islands like Vava’u with low income, this system works well because in usual that household would ask to pay not less than \$1.00paanga OR pay not more than \$5.00paanga in each month. This price is

not demanded to all communities but some were fundraising through kava clubs and concerts donation to raise money for their collection day. This year we include schools in community to participate, by do their collection on the same day where communities do their collection to cut cost. Public awareness display on schools is continuously in this year, unfortunate that if community people absent during the awareness training the children can remind them. The 3R Wastes Minimization is also include on activities to CSP.

During the study visit together with the two representatives from Gizo, Solomon Islands, we share many different situations that we do experience them here in Vava’u. We are similar in facing the same difficulties dealing with people to understand but after the site visit we do help them in sharing them how we used to deal with people and they both share with us about working in Gizo of too many dumping, burning, littering is more worse than Vava’u. Therefore in order to help each other difficulty, for future prospective we will share the same report and same template as a way to upgrade this system and sustain the environment. I’m thankful to Naoya san, JOCV, Gizo, Solomon Islands, that we still keep in touch by sharing the same Action Plan and Monitoring Sheets for CSP. I and Naoya san planned to approach competition for schools that will be one of the motivation activities to courage the focus of children on the important of Waste Management and we still search for funds to make this competition happen. However I knew this work is hard but if we stop now, who would be blame by the future generations that we are shellfish to plant good healthy environment for them. *(the photos below taken from Primary School during awareness program and their segregation collection)*

Figure 1



4. Lessons learnt from Vava'u visit



**Mr Naoya Ueno, JOCV,
Gizo, Solomon Islands**

J-PRISM gave Gizo, Solomon Islands, team a chance to visit Vava'u, Tonga and study solid waste management (SWM). Two members of Gizo team, Mr. Derald Michael (Town Clerk, Gizo Town Council) and I (Naoya Ueno, JICA volunteer, Western Province) were decided and went to Tonga.

I am sure this study visit was turning point for moving forward of our SWM project in Gizo. We could have studied a lot of ways to improve

our SWM because Vava'u team has succeeded community based garbage collection system and landfill management even they have same problems (lack of budget, no or less recycling company, outer island from capital, etc...) of Gizo. Also, we got motivated to work hard to make clean and healthy Gizo town again. We know what we should do in Gizo now thought by discussing with Vava'u Team.

After we come back to Solomon Islands, we made a presentation and shared our lesson learnt to counterparts in Honiara and Gizo. Of course we shared the information to Provincial Secretary in Western province and Director in Gizo Hospital. This is really important to get a backup for our SWM project from them. Last few years there are not big changes in Gizo, therefore, we must do big action to show them that we are here and working hard SWM.

We did a lot of SWM awareness activities to public last year but we haven't created any system and action for SWM. This is the reason to not moving forward in Gizo, therefore we decided to start action and make a system for giving public an opportunity to take action of SWM after we visited in Vava'u. There are four projects we decided to work hard now.

1) Public Rubbish Bin Installing

We are planning to provide drum style rubbish bin to reduce littering in Main Street. At the same time, we need to make awareness to public about using rubbish bin and stop littering. Also, we must make a schedule to keep collecting rubbish from rubbish bin all the time.

2) Rubbish Collection Pilot Project

There is no system to collect rubbish from household in Gizo. It is high demanded from public to start collect rubbish but we haven't started yet due to time management,

lack of budget and logistics. However, we must do something to change event we are facing many problems. That's why, we decided to start rubbish collection pilot project to find a suitable collection system in Gizo. It is impossible to collect rubbish from all Gizo town area now, therefore, we decided to two small areas for pilot project to collect rubbish for start. We are planning to build platform style rubbish collection place to collect household rubbish. It is easy to build and not costing too much. We will monitor this project and find out suitable collection systems. Once we find suitable systems in Gizo then we will expand another place to fit this system.

3) Dumpsite Rehabilitation

Derald Michael has changed his rehabilitation plan to fit the situation of Gizo now because of the prier plan hasn't changed a lot last few years by referring Vava'u's landfill project.

4) Clean School Program

We planned the following activity to be more active clean school program this year.

- (1) Monthly visiting to monitor every month
- (2) To write down monthly report by school to know what is the situation each school
- (3) More technical and financial help
- (4) Competition for motivate teacher and children

It was great opportunity to meet Vava'u counterparts and shared information about SWM. We don't want to waste this great meeting so we decided to keep in touch and share information to be stimulating our works. It will be good effect for SWM work by sharing story of success and fail activity. It also increases our motivation by compete each other.

For Clean School Program, Mele-san and I discussed how we can collaborate beyond different country. Then we decided to work together by using same format of monthly report to find a way to solve problem of clean school program. In addition, we think to make a competition each school to increase a motivation of teachers and children to work hard for programs.

We will be sister paradise town for SWM project and try to become one of the example of Environment friendly town together. I would like Vava'u team to come over to Gizo to see how we could change in the future.

Thank you for giving us this opportunity. We are now moving forward to make clean and healthy Gizo town.

5. FSM'S efforts on Solid Waste Management

By Patricia Pedrus (Patti), Sustainable Development Planner, Office of Environment and Emergency Management (OEEM), FSM National Government

The overall goal of the FSM regarding Solid Waste Management (SWM) is to develop, adopt, and maintain a system of integrated SWM that deals with the solid waste stream and minimize the negative impacts on the health of the FSM's population and environment. The Office of Environment and Emergency Management (OEEM) is the lead office responsible for environmental issues at the national level, with respect to administering the Environmental Protection Act (Title 25 of the FSM Code). At the State level, there is a regulatory agency and one agency responsible for delivering the solid waste management services.

Since 2009, OEEM through partnerships with the Secretariat of the Pacific Regional Environment Programme (SPREP) and the Japan International Cooperation Agency (JICA), has coordinated with State Environmental Protection Agencies (EPAs) and Kosrae Island Resource Agency (KIRMA) to identify goals and objectives aimed to protect and manage the environment through State Solid Waste Management plans and a National Solid Waste Management Strategy.

Through the implementation of pilot projects, there have been considerable improvements in the CDL system, Awareness campaigns, Collection and Disposal system, and Landfill management in FSM.

For example, in Yap State efforts to improve waste manage-

ment can be seen through an established wire bin system, public posters, and the launch of the green promo bag. On fact, Yap State EPA is collaborating with stores to implement



Green bag promo campaign in Yap State

the use of the green bag instead of the plastic bags, as part of their ban on plastic bags campaign. FSM OEEM assisted Yap State EPA to fund for 2,200 green bags as part of its facilitation efforts to the states. In this way, OEEM has become like a bridge between EPAs and KIRMA and facilitate the states' efforts and their needs, nowadays, and its role is anticipated to lead FSM to achieve the goals.

"ENVIRONMENT IS EVERYONE'S BUSINESS"

*The Flash newsletter is issue in every 3months.
The J-PRISM is finish in January 2016. If you would like to contribute, please do send us your article. Visit <http://www.sprep.org/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 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 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.

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