

**DOE/SCC/LCC/NTC/STC/BTC/TTC/RTC, Fiji
ECD/BTC/TUC, Kiribati
MEIDECC/MOH, Tonga**

**The Japanese Technical Cooperation Project for
Promotion of Regional Initiative on
Solid Waste Management in Pacific Island
Countries (J-PRISM)**

(Solid Waste Management B, F)

Project Completion Report

March 2016

Japan International Cooperation Agency (JICA)

Kokusai Kogyo Co., Ltd.

GE
JR
16-025

Abbreviations

ALD	Agriculture & Livestock Division (Kiribati)
BTC	Ba Town Council (Fiji)
BTC	Betio Town Council (Kiribati)
TC	Town Council (Fiji)
CEO	Chief Executive Officer
CI	Capacity Inventory
CWM	Chemical Waste Management Unit
C/P	Counterpart Personnel
DLG	Department of Local Government
DOE	Department of Environment
ECD	Environment and Conservation Division (Kiribati)
EIA	Environmental Impact Assessment
FNU	Fiji National University
IWCRM	Integrated Water and Coastal Resources Management
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JOCV	Japan Overseas Cooperation Volunteers
J-PRISM	Japan Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries
LCC	Lautoka City Council
MEIDECC	Ministry of Meteorology, Energy, Information, Disaster Management, Climate Change and Communications
MELAD	Ministry of Environment, Lands and Agricultural Development
MOE	Ministry of Education
MOH	Ministry of Health
MPAU	Media and Public Awareness Unit
MSW	Municipal Solid Waste
NGO	Non-Government Organization
NTC	Nadi Town Council
OISCA	The Organization for Industrial, Spiritual and Cultural Advancement – International
OJT	On-the-Job Training
PDCA	Plan–Do–Check–Act
PDM	Project Design Matrix
PO	Plan of Operation
RLA	Rural Local Authority
RTC	Rakiraki Town Council
SCC	Suva City Council
SPREP	Secretariat of the Pacific Regional Environment Programme
STC	Sigatoka Town Council
SWM	Solid Waste Management
TTC	Tavua Town Council
TTM	Taiwan Technical Mission
TUC	Teinainano Urban Council

UDP	Urban Development Project (by NZAID)
VEPA	Vava'u Environmental Protection Association
3R	Reduce, Reuse, Recycle (Return)

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Project Photos

1. Fiji
2. Kiribati
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1 Outline of the Project

1.1 Introduction

In order to improve waste management in Pacific Island Countries (hereinafter referred to as “PICs”), the Secretariat of the Pacific Regional Environment Programme (hereinafter referred to as “SPREP”) and Japan International Cooperation Agency (hereinafter referred to as “JICA”) have been working together since the first dispatch of JICA Experts to SPREP in the year 2000. Since then, the partnership between SPREP and JICA has been enhanced, especially through JICA’s technical cooperation project on “Solid Waste Management Project in the Oceania Region”, which was based in the Independent State of Samoa and was implemented from 2006 to 2010¹. One of the significant achievements in the region resulting from the joint assistance of SPREP and JICA is the development of the Pacific Regional Solid Waste Management Strategy 2010-2015 (hereinafter referred to as “the RS 2010”) which was finalized after a series of consultations in 2009. This RS 2010 was unanimously adopted as the guiding principle for the region at the SPREP Meeting in November 2009. Apart from this assistance, JICA implemented a technical cooperation project, namely “Waste minimization and recycling promotion project in the Republic of the Fiji Islands” from October 2008 to March 2012, and introduced appropriate and adaptable technology of solid waste management and promoted the concepts of 3Rs (Reduce, Reuse, Recycle) in the Pacific region.

In response to the request from PICs for continuous assistance of Japan, JICA launched a new regional project, entitled “Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries” (hereinafter referred to as “the Project” or “J-PRISM”), from February 2011 to February 2016. J-PRISM targets eleven (11) PICs² namely Federated States of Micronesia, Republic of the Fiji Islands (hereinafter referred to as “Fiji”), Republic of Kiribati (hereinafter referred to as “Kiribati”), Republic of Marshall Islands (hereinafter referred to as “RMI or “Marshall”), Republic of Palau (hereinafter referred to as “Palau”), Independent State of Papua New Guinea (hereinafter referred to as “PNG”), Independent State of Samoa (hereinafter referred to as “Samoa”), Solomon Islands (hereinafter referred to as “Solomon”), Kingdom of Tonga (hereinafter referred to as “Tonga”), Tuvalu and Republic of Vanuatu (hereinafter referred to as “Vanuatu”). In addition to the above countries, the Cook Islands, Nauru and Niue will be invited to participate in regional and/or sub-regional activities.

The objective of the Project is for independent development of solid waste management in the Pacific Island region by striving to improve regional capacity on both personnel and planning, and policy development levels with regard to the solid waste management; realization of this goal will be sought through practically tackling the solid waste management issues confronting Pacific Island countries. This part of the Project targets three countries, Fiji, Kiribati and Tonga, and is a

¹ Apart from this, JICA assisted PICs with the technical cooperation projects, such as “The Project for Improvement of Solid Waste Management in the Republic of Palau” from October 2005 to October 2008 as well as “Improvement of Bouffa Landfill” in the republic of Vanuatu from September 2006 to September 2008.

² All the eleven countries mentioned are SPREP members and are referred to as “the Project Member countries” of the J-PRISM.

continuation of the activities implemented over the three years prior to March 2014. This Project Completion Report summarizes the work progress implemented from late March 2014 to early December 2015 for about two (2) years during the latter half of the Project term.

1.2 Objective

The Overall Goal, the Project Purpose and the Outputs written in the current PDM are as follows:

(1) Overall Goal

Sustainable management of solid waste in the Pacific Region is enhanced.

(2) Project purpose

Human and institutional capacity base for sustainable Solid Waste Management in the Pacific Region is strengthened through the implementation of the Pacific Regional Solid Waste Management Strategy (RS 2010).

(3) Outputs

Fiji

Output 1: National 3R strategy has been widely implemented in Fiji

Output 2: 3R model of Fiji is disseminated nationally and in the Pacific Region

Kiribati

Output 1: Household waste (particularly garden waste) is recycled through waste separation and chipping

Output 2: Awareness is raised regarding solid waste through implementation of school programs

Tonga

Output 1: The existing solid waste disposal facility and operation in Vava'u is improved

Output 2: Solid waste collection service in Vava'u is improved

Output 3: Framework and system for long term solid waste management in Vava'u is established

1.3 Project Site

Target countries and areas are shown below.

Table 1-1: Target countries and area

Country	Fiji	Kiribati	Tonga
Area	Suva City, Lautoka City, Nadi Town, Sigatoka Town, Ba Town, Tavua Town and Rakiraki Town	South Tarawa	Vava'u

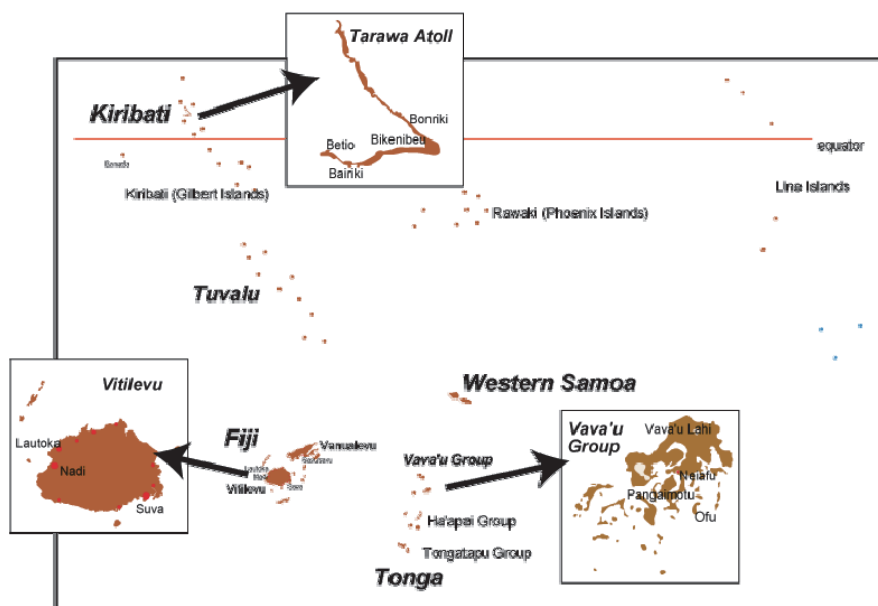


Figure 1-1: Project countries and area

1.4 Target waste

The target waste of the Project is solid waste including household waste, commercial waste, and other so-called municipal waste.

1.5 Implementing Agency

Implementing agency of each country is shown below.

Table 1-2: Implementing Agency

Country	Fiji	Kiribati	Tonga
Agency	Department of Environment (DOE), Suva City Council (SCC), Lautoka City Council (LCC), Nadi Town Council (NTC), Sigatoka Town Council (STC), Ba Town Council (BTC), Tavua Town Council, Rakiraki Town Council (RTC)	Environment and Conservation Division (ECD), Betio Town Council (BTC), Teinainano Urban Council (TUC)	Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC), Ministry of Health (MOH)

2 Input

2.1 Japanese Side

2.1.1 Dispatch of Experts

The table below presents the name and the responsibilities of the Japanese Experts dispatched for this Project. The total input of the dispatched experts is 23.50 person*month (22.50 person*month is for activities implemented in target countries while the remaining 1.00 person*month is for the activities conducted in Japan).

Table 2-1: Japanese Experts

In charge	Name
Team leader/Waste Management F (Tonga, Fiji)	Ms. Yurie SAKAI
Waste Management B (Kiribati, Fiji)	Ms. Keiko KANI
Monitoring / Capacity Assessment (Fiji)	Mr. James Palmer McLean
Final disposal (Fiji)	Mr. Naofumi SATO

The schedule of assignments for each year is as follows.

Table 2-2: Schedule of Assignments (First Year)

			FY 2014												Person*Month	
In charge	Name	Country	5	6	7	8	9	10	11	12	1	2	3	In Country	In Japan	
Team leader / SWM F	Yurie Sakai	Fiji														
		Tonga														
				27			60					46	8	4.70		
SWM B	Keiko Kani	Fiji														
		Kiribati														
				30			51					44		4.17		
Final disposal	Naofumi Sato	Fiji														
					20			34						1.80		
Monitoring/Capacity Assessment	James Mclean	Fiji														
					26(+28))			26						1.73		
Total (Activities in target countries)														12.40		
Team leader / SWM F	Yurie Sakai															
SWM B	Keiko Kani															
Total (Activities in Japan)															0.55	
Report		Inception Report ▲						P/R(1) ▲					P/R(2) ▲			

Table 2-3: Schedule of Assignments (Second Year)

			FY 2015										FY 2016		Person*Month	
In charge	Name	Country	4	5	6	7	8	9	10	11	12	1	2	In Country	In Japan	
Team leader / SWM F	Yurie Sakai	Fiji														
		Tonga														
			31			67				39				4.57		
SWM B	Keiko Kani	Fiji														
		Kiribati														
					42		41			42				4.17		
Final disposal	Naofumi Sato	Fiji														
														0.00		
Monitoring/Ca pacity Assessment	James Mclean	Fiji														
						41								1.37		
Total (Activities in target countries)														10.10		
Team leader / SWM F	Yurie Sakai															
														0.20		
SWM B	Keiko Kani															
														0.25		
Total (Activities in Japan)															0.45	
Report			Inception report (2) ▲						P/R(3) ▲			Completion report ▲				
														10.10	0.45	
													TOTAL	10.55		

2.1.2 Procured Equipment

The equipment procured for the Project is the following.

Table 2-4: Equipment procured in the target countries

Items	Maker/Model	Quantity	Recipient Organization
Desktop computer	DELL Inspiration AIO 2020、Windows8 Professional	1 Unit	BTC/Kiribati

Copies of the notice of handover issued by the JICA Fiji Office are attached in Annex 6.

2.2 Inputs from target countries

2.2.1 Personnel (Counterparts)

The personnel provided by each country are compiled in the table below.

Table 2-5: Personnel input from Fiji side

#	Name	Assigned Period	Position	Organization	2014												2015											
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1	Praveen Bala	Feb. 2011-	Special Administrator (SA) -> Minister for Local Government, Urban Development, Housing and Environment	Lautoka City Council -> Ministry of Local Government, Urban Development, Housing and Environment																								
2	Aminiasi Qareqare	Feb. 2011-Aug. 2011, Jan 2014 -	Principal Environment Officer (Waste Management & Pollution Control) -> Acting Director	Department of Environment																								
3	Laisani Lewanavanua	Feb. 2011-	Senior Environment Officer (Waste Management & Pollution Control)	Department of Environment																								
4	Mere W. Leba	Sep. 2013 -	Environment Officer	Department of Environment																								
5	Laisa Malagi	Sep. 2014-	Environment Officer (Waste Management & Pollution Control)	Department of Environment																								
6	Senivasa Waqairamasi	Feb. 2011-	Senior Environment Officer (Western Division)	Department of Environment																								
7	Mere Komailevuka	Feb. 2012-Sep. 2014	Technical Officer (Western Division)	Department of Environment																								
8	Kelera Tokalau	Feb. 2011-	Environment Officer (Western Division)	Department of Environment																								
9	Sakenasa Namisi	Mar. 2014	Environment Officer (Western Division)	Department of Environment																								
10	Jone Nakauvadra	Feb. 2011 (??)	CEO	Lautoka City Council																								
11	Gyneshwar Rao	Feb. 2011-	Director (Department Of Health)	Lautoka City Council																								
12	Rouhit Singh	Feb. 2011-	Manager (Department of Health)	Lautoka City Council																								
13	Shalend P Singh	Feb. 2011-	Senior Health Inspector (Department of Health)	Lautoka City Council																								
14	Wally Pauu	Feb. 2011-	Health Inspector (Department of Health)	Lautoka City Council																								
15	Mithun Prasad	Feb. 2011-	Health Inspector (Department of Health)	Lautoka City Council																								
16	Sheik Mohammed Saidil Ali Shaib	Feb. 2011-	Heavy Machinery Operator	Lautoka City Council																								
17	Anjay Kumar	Feb. 2011-	Landfill Machinery Operator	Lautoka City Council																								
18	Robin Ali	Jul. 2013-	SA	Nadi Town Council																								
19	Rajeshwar Raj	Feb. 2011-Sep. 2015	Health Inspector	Nadi Town Council																								
20	Nafiza Ali	Feb. 2011-	Health Inspector	Nadi Town Council																								
21	Jay Whyte	Jul. 2013-Oct. 2014	SA	Sigatoka Town Council																								
22	Tulsi Ram	Dec. 2014 -	CEO	Sigatoka Town Council																								
23	Ashnil Sharma	Oct. 2012-Jul. 2015	3R Project Officer / Assistant Health Inspector	Sigatoka Town Council																								
24	Salanieta Kerekerelevu	Jun. 2015-	Attachment	Sigatoka Town Council																								
25	Dip Narayan	?, 2011-	CEO	Ba Town Council																								
26	Ronika Mishra	Sep 2014 -	Health Inspector	Ba Town Council																								
27	Tulsi Ram	? 2011 - Dec 2014	CEO	Tavua Town Council																								
28	Temalesi Henfiro	Jan 2015 -	CEO	Tavua Town Council																								
29	Alvines Prasheel Kumar	Feb 2015 -	Collection vehicle driver	Tavua Town Council																								
30	Pramod sikh	Feb 2015 -	Labor, Assistant of Collection vehicle driver	Tavua Town Council																								
31	Cirikiwasawasa Ralulu	June 2013 -	SA	Rakiraki Town Council																								
32	Rakesh Chandra	Jan 2015 -	CEO	Rakiraki Town Council																								
33	Amy balemaiwai	Mar. 2013-Dec 2014	Assistant Market Officer	Rakiraki Town Council																								
34	Eseta Leawere	Feb. 2011-Jul. 2014	Senior Health Inspector	Sigatoka Town Council																								
35	Naresh Narayan	Mar. 2013-	Senior Health Inspector	Suva City Council																								
36	Taito Rauluni	Mar. 2013-	Health Educator	Suva City Council																								
37	Robert Randolph	Mar. 2013-	Assistant Senior Health Inspector	Suva City Council																								
38	Maria Ravesivesi	Jan. 2015-	Assitant Health Educator	Suva City Council																								

Table 2-6: Personnel input from Kiribati side

#	Name	Assigned Period	Position	Organization	2014												2015											
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1	Nenenteiti Teariki	Jan 2013 - Aug 2014	Director of ECD	ECD/MELAD																								
2	Taouea Reiher	Sep 2014 -	Acting Director of ECD	ECD/MELAD																								
3	Taulehia Puefou	Jan 2012 -	Waste Management officer	MELAD																								
4	Robite Teaele	April 2012 -	Media & Public Awareness Officer	MELAD																								
5	Takena Redfern Viala	Jan 2013 -	ALD	MELAD																								
6	Eliza Tokataake	Feb. 2011- Dec 2012, Feb 2015 -	CE O(BTC) -> Urban Management Officer	Betio Town Council -> Ministry of Internal Affairs (MIA)																								
7	Rine Ueara	May. 2013- Dec. 2014	CEO	BTC																								
8	Teikarawa Amatia	Aug. 2015 -	CEO	BTC																								
9	Bwaree Taorobwa	Oct 2013 - Mar 2015	Waste Supervisor	BTC																								
10	Kaiea Toromon	Mar 2015 -	Waste Supervisor	BTC																								
11	Tekotaake Keariki	Jan 2013 -	Acting CEO	TUC																								
12	Harry Langley	Jan 2013 -	Waste Supervisor	TUC																								

Table 2-7: Personnel input from Tonga side

#	Name	Assigned Period	Position	Organization	2014												2015											
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1	Asipeli Palaki	Feb. 2011-Jul.2014	CEO/Director	Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC)*	←──																							

3 Progress of the Project

3.1 Plan of Operation

The project was implemented for five years from February 2011 to February 2016, and this report summarizes the work progress implemented from late March 2014 to early December 2015 for about two (2) years during the latter half of the Project period. The implementation schedule of each activity planned for the outputs of the PDM was compiled in the Plan of Operation (please refer to the Annex 2) and shared among the relevant parties. Project activities were implemented in accordance with the following schedule.



Table 3-1: Schedule of Project Activities

Activities	Schedule	FY 2014												FY 2015											
		5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
A Preparations in Japan (FY 2014)																									
A.1	The current conditions, progress and details up to the present are grasped																								
A.2	A draft Project inception Report, a detailed assignment schedule and Project cost estimation are formulated.																								
A.3	The draft plan and policies of Project activities are discussed with the Project Office																								
B Activities common to all three countries (FY 2014, FY 2015)																									
B.1	The draft inception Report is explained to JICA offices and counterpart organizations.																								
B.2	Capacity assessments are implemented in Fiji, Kiribati and Tonga																								
B.3	Joint Coordinating Committee (JCC) meetings are organized in Fiji, Kiribati and Tonga																								
C Project activities in Fiji																									
C.1	Activities relevant to all outputs																								
C.1.1	Capacity assessments is implemented jointly with C/P																								
C.1.2	A framework to ensure sustainable 3R activities after the end of the Project is examined with C/P																								
C.1.3	Capacity assessment is implemented before the end of Project																								
C.2	Activities of the Department of Environment																								
C.2.1	Legislation to promote 3R activities based on the National 3R Policy and National Waste Management Strategy is proposed																								
C.2.2	Training for 3R promotion is held, and a framework for sustainable 3R promotion to support local governments is examined																								
C.3	Local councils in western division																								
C.3.1	Activities in Lautoka and Nadi																								
C.3.1.3R	activities are continued																								
C.3.2	Training program to other areas of Fiji and other countries is planned and implemented																								
C.4	Activities in Sigatoka																								
C.4.1	Waste discharged from hotels and the market is minimized																								
C.4.2	Rehabilitation works and proper operation and maintenance of Sigatoka landfill are implemented																								
C.5	Activities in other councils in the western division (Ba, Tavua and Rakiraki)																								
C.5.1.3R	activities are implemented in a sustainable way																								
C.6	Activities in Suva City																								
C.6.1	Activities related to market waste composting are implemented																								
C.6.2	Activities for SWM and 3R planning are implemented																								
C.7	Activities in other local governments																								
C.7.1	Support system for other local governments is examined with DoE																								
D Project activities in Kiribati																									
D.1	Capacity assessments is implemented jointly with C/P																								
D.2	Compost is produced from garden waste																								
D.3	Recycling of organic waste is promoted with consideration for effective use or a shredder.																								
D.4	Community awareness activities is implemented																								
D.5	3R activities are promoted at schools (through Clean School Program)																								
D.6	A framework for sustainable activities after the Project is examined																								
D.7	Capacity assessment is implemented before the end of Project																								
E Project activities in Tonga																									
E.1	Capacity assessments is implemented jointly with C/P																								
E.2	Solid Waste Management Plan for Vava'u is finalized, monitored and evaluated																								
E.3	Operation and maintenance of the rehabilitated final disposal site and water quality are monitored according to the operation manual																								
E.4	The draft garbage collection plan is finalized, and community-based garbage collection system are monitored and promoted																								
E.5	Collaboration with MOTTAINAI Project of Chura and Vava'u																								
E.6	A framework for sustainable activities after the Project is examined																								
E.7	Capacity assessment is implemented before the end of Project																								
F Other Activities (common to all three countries)																									
F.1	A sub-regional workshop with the purpose of sharing good practices is proposed																								
F.2	Progress of project activities and schedule are confirmed with Project Office by teleconference																								
F.3	Progress Reports are prepared, explained and submitted to C/P organizations and JICA offices																								
G Works in Japan (FY 2014, FY 2015)																									
G.1	Results of project activities are reported to the Global Environment Department, JICA																								
G.2	Progress of project activities gained from C/P are reported to the Project Office																								
G.3	Inception report is modified according to the progress of activities, and submitted to JICA and the Project Office																								
G.4	Progress Reports and Project Completion Report are submitted to JICA																								

Legend:

Works in target countries

Works in Japan

Legend:  Works in target countries
 Works in Japan

3.2 Summary of Activities

The summary of activities is as outlined below.

3.2.1 Activities in Fiji

a. 【Output 1】 National 3R Strategy has been widely implemented in Fiji

a.1 Activity 1-1 Prepare the action plan for implementation of national 3R strategy

The National 3R Strategy is regarded as (1) National SWM Strategy (2011 – 2014) and (2) National 3R Policy in PDM of Fiji.

a.1.1 National SWM Strategy (2011-2014)

The Department of Environment (hereinafter referred to as “DoE”) intended to develop a new National Waste Management Strategy (2015 – 2020) in FY 2014 as the current strategy was outdated in 2014. The DoE was planning to outsource the development of a new strategy by March 2014. However, it failed due to the delay of the approval process of the Ministry. The DoE received requests for immediate development of a new strategy from JCC members during the 4th JCC, which was held in March 2015.

In response to this, the DoE reviewed the work plan in order to develop the new strategy by November 2015. However, the implementation schedule was delayed due to the delay of the internal approval procedure, which finalizes the contents of Terms of Reference for outsourcing the work to a consultancy. As per government procedures, the Government Tender Board has approved the engagement of Hydea S.p.A to review the current strategy, and develop an integrated Waste Management Strategy. The Consultancy will commence on 15th February, 2016, and is intended for three months. The new strategy is expected to be published and launched by September 2016.

a.1.2 National 3R Policy (2015-2020)

A National 3R Policy was drafted as a 3R guideline by JICA’s technical cooperation project on “Waste Minimization and Recycling Promotion Project in the Republic of the Fiji Islands” from October 2008 to March 2012. However, this draft national 3R policy is yet to be finalized. In order to finalize the draft 3R policy, the DoE engaged consultants in October 2014, and the final 3R policy consultation meetings were conducted in each division in February 2015. The JICA Expert Team also attended one of the meetings and made comments based on the outcomes of the project. The final draft of the 3R Policy was submitted to the Management of the Ministry for approval. However, approval of the policy is still pending as of writing of this report. The policy is expected to be endorsed by the Cabinet by March 2016.

a.1.3 National 3R Promotion Framework (Home Composting Subsidy Program, Clean School Program (CSP) Financial Assistance)

(1) Background

The J-PRISM Project started in March 2012, effectively as a continuation of a preceding JICA technical cooperation project, entitled “Waste Minimization and Recycling Promotion Project in Fiji” (hereinafter referred to as “3R Project”) which was piloted in Lautoka and Nadi from October 2008 until March 2012. Under the 3R Project, the different activities were implemented on a pilot scale including, home composting, market waste composting, green waste chipping and recycling, separate collection of recyclables and Clean Schools Programme (CSP) under the

Environmental Awareness component.

The pilot project conducted by the Lautoka City Council and the Nadi Town Council under the 3R Project revealed that home composting would be one of the most effective methods in terms of waste minimization as it is capable of reducing the volume or weight of refuse by 25 % at generation source. It was also noted that a home composting method using local-made compost bin(s) would also be applicable to people's lifestyles and the natural environment of Fiji. Following this outcome, the Lautoka City Council and the Nadi Town Council regarded home composting as the most prioritized 3R policy, and developed a home compost subsidy programme to promote home composting by provision of financial assistance. In addition, the Suva City Council, with the financial assistance of the UNDP, also developed a subsidy programme for promotion of home composting. As of the end of March 2015, a total of 970 compost bins were distributed by these three councils; 272 bins sold by Lautoka City Council, 245 by Nadi Town Council and 450 bins by Suva City Council.

Home composting became widely promoted by the abovementioned three councils, which also had the effect of increasing demand for composting bins in areas outside of these councils' jurisdictions. Residents living outside of councils' boundaries often visited the councils to buy a compost bin, which resulted in an increased burden on the councils. In order to meet the increasing demand for composting bins, the J-PRISM Expert(s) proposed that the Ministry consider the development of a Home Composting Subsidy Programme at a national level in the third JCC meeting, which was held in March 2014.

(2) Outline of the activities

In response to the proposal made by JICA Expert(s), the DoE, with the technical assistance of JICA Expert examined and finalized the National Home Compost subsidy programme in FY 2014.

In addition to the above subsidy programme, the DoE established a Clean School Program (CSP) Financial Assistance on their own initiative. The CSP was developed in 2010 by the JOCV who was assigned to the Nadi Town Council, and had been continuously implemented by the Nadi Town Council and the Lautoka City Council since then. Under the J-PRISM Project, the CSP was executed, to varying degrees, in all six Western Division councils; namely the Ba Town Council, the Sigatoka Town Council, the Rakiraki and the Tavua Town Council followed by the Suva City Council of the Central Division since FY 2013. The DoE had been rendering financial assistance to the six Western Division councils for the annual prize giving ceremonies conducted at the end of the competition. Afterwards, from collation of data from all involved councils, it has been noted that financial constraints affects the progress of the programme. The Minister of Local Government and Environment took strong initiative on the CSP and the CSP financial assistance was expected to promote the CSP nation-wide.

Draft frameworks were shared and discussed among council counterparts during the J-PRISM regular joint meetings. Councils also submitted implementation reports and costs to the DoE. The DoE made a draft proposal and submitted it to the JICA expert team in September 2014. Considering comments made by the JICA expert team, the DoE finalized the proposal and submitted it to the PS/Minister. Endorsement was given from the Minister/PS in October 2014.

The proposal developed by the DoE CP is attached to Annex 7.1.1.a

The launching ceremony and technical workshop were held on 10 April 2015. The Minister for Local Government, Housing and Environment, together with the JICA Residential Representative, Mr. Hiroyuki Sawada, and the Ministry of Education Divisional Education Officer, Mr. Lorima Voravora, launched the program. All thirteen municipal councils were invited. Following the launching ceremony, the Ministry, through the Department of Environment with the council counterparts who pioneered the CSP initiative, organized a technical training to provide tips for implementation of both programs. At the end of the training, all thirteen councils presented their action plans. Six (6) JOCVs also attended the ceremony and training with their counterparts. The DoE paid a larger share of the expenses of the launching ceremony and technical workshop as shown in the Table 3-2, while the Project funded the printing cost of education materials.

Table 3-2: Expenses for implementation of National 3R Promotion Framework

	DoE's expenses (FJD)	J-PRISM's expenses (FJD)
Purchase of compost bins	16,600	-
Media awareness for promotion of home composting (TV, newspaper)	1,500 (newspaper only)	8,000
Subsidy for CSP	3,000	-
Education materials (composting manuals, CSP guidebook, posters, etc.)	-	10,000
Venue, accommodations participants	7,000	-
Total	28,100 (approx.1,700,000yen)	18,000 (approx. 1,100,000yen)

(3) Outcomes

Due to the establishment of National 3R Promotion framework, the two programs, namely Home Composting and CSP, which was initially introduced by two municipalities in 2009, have spread nationwide in 2015. The National 3R Promotion Framework will be continued in 2016. In order to implement the framework effectively, the DoE, with the technical assistance of the JICA Expert team, implemented the following activities: reviewed the current framework based on the monitoring reports which were submitted by council counterparts; reviewed results of monitoring inspection which was carried out by the DoE in October 2015; and re-examined the implementation status, effectiveness of framework, good practices, issues and lessons learned. The DoE presented these outcomes in the fifth JCC which was held in March 2016. The DoE's presentation is attached as Annex 7.1.1.b. It is noteworthy that the national government established financial support measures to promote 3Rs to be implemented by local governments.

a.2 Activity 1-2 Conduct training of 3R to be implemented

The following 3R trainings were conducted, as shown the table below.

Table 3-3: Outline of training implemented

	Training	Date	Venue	Organizations participated	Contents of training
1	Compost training	Oct. 2014	OISCA	DOE, Suva City Council, Lami Town Council, Nasionu Town	<p><Purpose></p> <ul style="list-style-type: none"> To teach workers in charge of compost production compost methods (based on the request from SCC) <p><Outline></p>

				Council, UniFarm (NFU), Fiji Corrections Service	<ul style="list-style-type: none"> Lecture on OISCA compost method and site visit at the OISCA training centre <p><Result></p> <ul style="list-style-type: none"> SCC workers were highly motivated by the first opportunity to participate in a training session outside the office and considered modifying their compost method.
2	Technical training for Home Composting and CSP	Apr. 2015	Nadi (Hotel)	DoE, all thirteen councils	<p><Purpose></p> <ul style="list-style-type: none"> To make new councils understand the <u>implementation procedure of two programs</u> <p>DoE: Presentation on outline of National 3R Promotion framework, education materials and monitoring system.</p> <p>Councils (LCC, NTC, SCC): Presentation on case study, implementation procedure, tips for success and lessons learned.</p> <p><Result></p> <ul style="list-style-type: none"> Participants understood the outline of national 3R promotion framework and its implementation procedure. The training created a team spirit among participants.
3	Training on market waste composting	Jun. 2015	Suva	DOE, councils of Central, Northern, Eastern Division, Rural Local Authority (Navua and Korovou)	<p><Purpose></p> <ul style="list-style-type: none"> To summarize the cases of market compost projects in Fiji and successful factors To show how to make a plan for market compost project <p><Outline></p> <ul style="list-style-type: none"> To introduce the market compost project in Lautoka, Suva and Ba To explain the planning process. <p><Result></p> <ul style="list-style-type: none"> Participating organizations agreed to exchange information and data on the their project plans and baseline survey results, in order to realize and improve market compost projects in their councils, with SCC taking a leading role.
4	Training on operation of final disposal site	Dec. 2015	Vunato landfill, Lautoka	Landfill operator for Sigatoka Town Council	<p><Purpose></p> <ul style="list-style-type: none"> Landfill operator will be able to understand a proper landfill management method. <p><Outline></p> <ul style="list-style-type: none"> Landfill operators of LCC conducted training for landfill operation and maintenance and demonstration of waste compaction using heavy machines <p><Result></p> <ul style="list-style-type: none"> Sigatoka landfill operator understood a proper landfill operation method through active discussion with Lautoka landfill operators The cooperative relationship between operators was established.

a.3 Activity 1-3 Implementing action plans in selected councils through pilot projects

Six local councils in the western division and the Suva City Council implemented various activities according to the Plan of Operation (PO) in March 2014 which was made based on the

recommendations of the mid-term review. The outlines and outcomes of each activity are shown below. For the “Activities implemented” in the following table, a phrase between angular brackets (...) shows main actor of each activity.

Table 3-4: Activities implemented by each council

	Lautoka City Council (LCC)	Nadi Town Council (NTC)	Sigatoka Town Council (STC)	Ba Town Council (BTC)	Tavua Town Council (TTC)	Rakiraki Town Council (RTC)	Suva City Council (SCC)
Home composting	●	●	★	★	★	★	◎→★
Market waste composting	●		●	●			●
Recyclables collection	●	●					◎
Clean School Programme	●	●	●	●	●	●	◎→★
Improvement of final disposal	●		●				
Data management of SWM						●	●
Promotion of Eco-bag	◎	●					
Hotel waste reduction			●				

● Activities were incorporated into PO as of 2014, ★ Added to the PO as of 2015 due to implementation of National 3R Promotion Framework, ◎ Independently conducted (excluded in current PO)

(1) Lautoka City Council: LCC

Table 3-5: LCC-Output 1. Separate collection of recyclables

Item	Contents
Implemented period	Since Sep. 2009 - * The activity has continued since 3R Project's time.
Target area	<ul style="list-style-type: none"> Curbside collection — Veitari Ward, A part of the Central Business District (CBD) area Communal collection point— All city area
Activities implemented	<ul style="list-style-type: none"> Analyzed the implementation status (amount of recyclables collected, participation rate, operation cost, etc), extraction of issues, examination of countermeasures (C/P, Expert) Conducted awareness activity through house-to-house visit, distribution of circular (C/P) Coordinated among relevant organizations (recycling companies, universities, NGO, etc.) (C/P) Examined implementation system of communal collection system (target items, design of collection points, implementation schedule, frequency of collection, monitoring methods, etc.) (C/P, Expert) Constructed communal collection point (LCC bore the construction cost (FJD5,000 (approx. 300,000 yen) (* signboards were funded by the Project) (C/P, Expert) Organized a launching ceremony of communal collection points (Mar. 2015) (Mr. Amano, Chief Advisor of J-PRISM Project Office attended the ceremony as a chief guest) (C/P) Calculated amount of recyclables collected per month (both curbside collection and communal collection point) (C/P, Expert) Verified effectiveness of each system (C/P, Expert)
Status of achievements	[Indicators] 1. Participation rate (Target: 20%) 2. Amount of recyclables collected (Target: 400 kg per month)

	<p><State of achievements> <u>Both indicators - Not achieved</u></p> <p>(1) Curbside collection</p> <ul style="list-style-type: none"> Participation rate: 0.7% (Jul. 2015), 0.9% (Sep. 2015 – Nov. 2015) <ul style="list-style-type: none"> (*average participation rate: 5.6% (FY 2014), 8.2% (FY2013)) Amount of recyclables collected: 307kg/month <ul style="list-style-type: none"> (*average collection amount: 404kg/month (FY 2014), 258kg/month (FY 2013)) Annual operation cost: approx. FJD 3,130/year (FJD 260/month) <p>(2) Communal collection point</p> <ul style="list-style-type: none"> Average amount of recyclables collected per month: approx. 20kg/month <p>(3) Others</p> <ul style="list-style-type: none"> Amount of recyclables collected through other activities, namely recyclables collection done by waste pickers at the Lautoka Vunato landfill, paper recycling, community-based recyclable collection in Koropita community, and recyclable collection at hospital: more than 30 ton per month.
Results of implementation and evaluation	<ul style="list-style-type: none"> In the Solid Waste Management Plan of the Lautoka City Council (2009-2017), the LCC intended to introduce the separate collection of recyclable system into all four Wards; namely the Veitari Ward, the Tavakubu Ward and the Simla Ward), by Apr. 2014. However, the collection system remains in the Veitari Ward only, which accounts for about one-third of the population of Lautoka City. Although expansion of system requires outsourcing of collection services, the LCC was not able to make a decision due to low participation rate and low amount of recyclables collected. The C/P made continuous efforts to increase the participation rate and amount of recyclables collected through house-to-house visit, but it didn't lead to a substantial improvement. Communal collection point requires initial cost for construction of facility only, and the operation cost is almost zero (labor cost for monitoring of facility is needed). At the Vunato final disposal site owned by the Lautoka City Council, approx. 25 waste pickers are collecting recyclable items. Average amount of recyclables collected by waste pickers: 1.25 ton/day, 20-30 ton/month. Compared to curbside collection and communal collection, it is concluded that 3R activity by waste pickers is a high cost-effective method with a high waste minimization effect in Lautoka city.
Recommendations	<ul style="list-style-type: none"> As waste pickers play a key role in waste minimization via informal recycling in Lautoka City, the LCC should regard them as one of the main actors of 3R activity, support their activities fully and maintain the health of workers through the improvement of their working environment.
Work plan for FY2016	<ul style="list-style-type: none"> The current curbside collection system will be ceased from Jan. 2016. In the work plan for FY2016, the title of this outcome was changed from "Separate Collection of Recyclables" to "Promotion and Collection of Recyclables". And, all activities related to recyclables collection including waste pickers, are included. Indicator: 25ton/month.

Table 3-6: LCC-Output 2. Home Composting

Item	Contents
Implemented period	<p>Since Sep. 2009 -</p> <p>* The activity has continued since 3R Project's time.</p>
Target area	<ul style="list-style-type: none"> City area, including outside the city boundary * The LCC initially sold compost bins to the citizens who live in the city boundary only. To meet the increased demand for compost bins, the LCC decided to sell bins to non-taxpayers who live in rural areas. In that case, the selling price is FJD 41.25 (approx. 2,500 yen), which is half of the normal price (the subsidized price for taxpayers: FJD 30.00 (approx. 1,800

	yen).
Activities implemented	<ul style="list-style-type: none"> The LCC has continued their own home composting subsidy programme since 2010, and secured the budget for the purchase of compost bins (C/P) Number of bins allocated from government to the LCC: 30 bins (FY2015) (DoE) The LCC gave technical guidance when the bins are installed at household. Also, the LCC supplied user manuals and wood chips as moisture control. (C/P) The LCC conducted monitoring (use condition, provision of technical instruction, etc.) (C/P) The LCC conducted awareness activities to promote home composting (setting of booth, promotion at council's event, etc.) (C/P) Media awareness through community paper, newspaper and TV (in collaboration with the DoE and the Project) (C/P, DoE, Expert) Presentation on home composting and CSP in the technical workshop for home composting subsidy program and CSP financial assistance (Apr. 2014) (C/P) In collaboration with Fiji Corrections Service and DoE, LCC C/P conducted one day training on composting for staff and prisoners at the Natabua corrections Centre. Periodical monitoring is also conducted with the 3R steering committee from the Centre to ensure success of this initiative. (C/P) The LCC C/P (Mr. Shalend) submitted an Action Plan on Home Composting to the JICA Alumni, and received a \$2,000 budget for 44 compost bins. (C/P)
Status of achievements	<p>[Indicator]</p> <p>1. Number of compost bins to be promoted: 350 bins (by Mar 2016)</p> <p><State of achievement> <u>Likely achieved</u></p> <ul style="list-style-type: none"> 339 compost bins will be promoted by early December 2015. (97% achieved) The LCC was supposed to purchase 100 bins in FY2015; however, only 30 bins was purchased due to the rise in price for compost bins from F\$55 to F\$115 per bin.
Results of implementation and evaluation	<ul style="list-style-type: none"> Due to the rise in price for compost bins, it seemed difficult for the LCC to achieve the target. However, provision of compost bins through the National 3R Promotion framework and the JICA alumni will likely enable the LCC to achieve the target. According to the monitoring results that the LCC conducted, the percentage of bins used in a good manner was 85.2% (=46/54 bins). Periodical monitoring is crucial to enable residents to use bins effectively.
Recommendations	<ul style="list-style-type: none"> The LCC needs to be clarify between the LCC's own subsidy program and the DoE's one. The target of each program should be distinguished (e.g. LCC: taxpayer, DoE: non-taxpayer)
Work plan for FY2016	<ul style="list-style-type: none"> [Target] Total number of compost bins to be promoted in 2016: 36 In FY 2016, the LCC is planning to gain 60 bins in total. The LCC purchased 30 bins from the LCC's own subsidy program while 30 bins will be allocated by the DoE through the National 3R Promotion Framework.

Table 3-7: LCC-Output 3. Market waste composting

Item	Contents
Implemented period	Since Sep. 2009 - * The activity has continued since 3R Project's time
Target area	<ul style="list-style-type: none"> Municipal market Compost yard at Vunato final disposal site

Activities implemented	<ul style="list-style-type: none"> Monitoring of site conditions and status of implementation (C/P, Expert) Data collection and analysis (C/P, Expert) Supervision of contractor who is in charge of separation and transportation of market waste (C/P, JOCV) Promotion of produced compost (setting of booth, promotion at council's event, etc) (C/P, JOCV)
Status of achievements	<p>[Indicators]</p> <p>1. Amount of market compost produced by Mar. 2016: more than 15 tons (accumulated value)</p> <p>2. Total sales revenue by selling compost by Mar. 2016: FJD 4,500 (accumulated value)</p> <p><State of achievements> <u>Both indicators - Achieved</u></p> <ul style="list-style-type: none"> Amount of market compost produced as of the end of Nov. 2015: 28.16 tons (188% achieved) Total sales revenue by selling compost as of the end of Nov. 2015: FJD8,448 (188% achieved)
Results of implementation and evaluation	<ul style="list-style-type: none"> Recycling rate of market waste in 2015: 42.2% (=Average collection amount of market waste (0.987 tons/day) / average generation amount of market waste (2,338 tons/day)) The average collection amount of market waste in FY 2011 was 0.2 tons per day. The LCC with the assistance of JOCV, made efforts to increase the amount of market waste for composting by improvement of segregation condition through awareness activity for market vendors, outsourcing of segregation and transportation works and supervision of market contractor. In the SWM Plan of the LCC, the target amount of market waste to be collected is 1.3 tons per day. Methods of manufacturing compost were simplified by using landfill heavy machines, such as excavator(s) for turning over compost heaps, which in turn leads to savings of production cost. The Compost yard is located within the landfill, so that issues like leachate generation and odor caused by the manufacturing process of compost are not so serious. The LCC used wood chips produced by shredding green waste as moisture control for compost heaps. There is a demand for compost among general households and/or farmers. Through word of mouth, it gained recognition attracting many returning customers. In addition, compost is selling well because of the recent boom in home vegetable gardens due to the rise in price for vegetables.
Recommendations	<ul style="list-style-type: none"> The selling price should be re-examined, taking outsourcing costs into consideration. To meet the increased demand for compost, the manufacturing process of compost should be expedited. It is desirable to procure a mini shredder and small shed for storage of final compost material. Component analysis of produced compost should be conducted periodically to ensure the quality of compost.
Work plan for FY2016	<ul style="list-style-type: none"> The LCC set up the following three targets: <ol style="list-style-type: none"> 10 ton/day of market organic waste composting. Sell at least 38 tons of compost generating revenue of \$11,400.00 by December 2016 (accumulated values) Market compost heaps turned every week

Table 3-8: LCC-Outcome 4. Clean School Programme (CSP)

Item	Contents
Implemented period	Since 2010 - * The activity has continued since 3R Project's time
Target area	City area, including schools located outside of city boundary
Activities implemented	<ul style="list-style-type: none"> Confirmed the status of implementation based on the Plan of Operation (PO) (C/P, Expert)

	<ul style="list-style-type: none"> The C/P conducted school monitoring and organized the judging and the award ceremony. (C/P) The JICA Experts provided technical advice on monitoring and judging procedure. (Expert) The C/P and the JICA Experts attended events organized at target schools. (C/P, Expert)
Status of achievements	<p>[Indicator] 1. 3R concept to be promoted for “48 schools” in urban and rural areas by March 2016</p> <p><Status of achievement> <u>Archived</u></p> <p>3R concept was promoted to all 51 schools in urban and rural areas through workshops which were organized in May 2013. Among them, 34 schools (in FY 2014) and 32 schools (FY 2015) prepared action plans and implemented CSP programmes at schools.</p>
Results of implementation and evaluation	<ul style="list-style-type: none"> In FY 2014, the program was launched by distributing a circular, but monitoring was not conducted at all. The judging and the award ceremony were organized. In FY 2015, the LCC conducted monitoring two times. The performance of schools depends on following-up and monitoring activities conducted by councils, which also leads to a successful implementation of the CSP. Additionally, it contributes to building trust in the relationship between schools and councils.
Recommendations	<ul style="list-style-type: none"> Following-up for schools that have not submitted action plans. The LCC should focus on schools located in the city boundary considering the LCC’s shortage of human resources. For schools in rural areas, it is crucial to establish a cooperative relationship with the MoE and the Rural Local Authority (RLA). Monitoring for schools should absolutely be conducted.
Work plan for FY2016	<ul style="list-style-type: none"> Total number of schools to be targeted to participate in the CSP by distribution of invitation letters in 2016 : 51 (Target 30 schools to Participate in the CSP Program/Competition) 1. Primary School: 23 <ul style="list-style-type: none"> - Urban (within city/town boundary): 13 - Rural: 10 2. Secondary School: 7 <ul style="list-style-type: none"> - Urban (within city/town boundary):6 - Rural: 1

Table 3-9: LCC Outcome 5. Vunato dumpsite rehabilitation

Item	Contents
Implemented period	Since Sep. 2009 - * The activity has continued since 3R Project’s time
Target area	<ul style="list-style-type: none"> The Vunato final disposal site
Activities implemented	<ul style="list-style-type: none"> Confirmed the implementation status based on the Plan of Operation (PO) (C/P, Expert) Management of incoming waste (weight measurement of incoming waste through weighbridge, tipping fee system by waste category, visual confirmation of incoming waste, Analysis of weighbridge data, guiding of collection trucks, etc) (C/P) Weighbridge certification/calibration (C/P) Daily landfill operation and maintenance (level raising of embankment, re-construction of access roads, installation of drainage, etc) (C/P) Up-grading of disposal section for special waste. (C/P) Maintenance of heavy machines (the LCC hires necessary machines from the private company while the LCC’s own machines are under maintenance) (C/P) The registration system for waste pickers is being introduced. The LCC supported recycling activity done by waste pickers. WARM training

	<p>conducted for 25 waste pickers. (C/P)</p> <ul style="list-style-type: none"> The LCC, with the technical assistance of JICA Expert(s), examined the necessary monitoring devices for water monitoring. (C/P, Expert) The LCC organized site visits for visitors within and outside the country The LCC conducted training programs for officers, dump attendants and landfill operators of the Sigatoka Town Council. (C/P, Expert) The LCC dispatched a staff member (Mr. Shalend) to the Sigatoka landfill for provision of technical advice during the absence of JICA Experts. (C/P)
Status of achievements	<p>[Indicator]</p> <p>1. "100%" coverage on site improvement (periphery bank, improvement of access road and drainage) in dump site by March 2016</p> <p><State of Achievement> <u>Achieved</u></p> <ul style="list-style-type: none"> According to the landfill improvement plan which was developed by 3R Project in 2009, the LCC improved sites at their own expenses.
Results of implementation and evaluation	<ul style="list-style-type: none"> The LCC developed a unique and sustainable landfill method considering their capacity and locational condition (mangrove low-land). The Landfill operation has already been made into a routine. The LCC established a charging system based on the weighbridge data that enables the LCC to secure necessary revenue for landfill operation and maintenance every year. The cost for weighbridge calibration and maintenance of heavy machines are also covered by the tipping fee. Various good practices like registration system of waste pickers, OHS/WARM training, are identified as good practices.
Recommendations	<ul style="list-style-type: none"> To continuously conduct data analysis of incoming waste, records are kept of revenue and expenditure, which can be utilized for future landfill management plan. To conduct water monitoring on a regular basis, which is crucial in measuring any possible environmental impact resulting from the current landfill management can be mitigated.
Work plan for FY2016	<ul style="list-style-type: none"> The LCC set up the following three targets: <ul style="list-style-type: none"> 1. Facilities and equipment constructed and procured as planned. 2. 100% maintenance of facilities at Vunato Disposal Site. 3. Conduct quarterly water quality monitoring

Table 3-10: LCC – Other activities other than the above (LCC Independently conducted)

Item	Contents
Activity	<p>(1): Community-based 3R activity</p> <ul style="list-style-type: none"> - Started since September 2014. - Site: Koroipita, low-income community located in the peri-urban area - Activity: Recyclables collection, Home Composting, Eco-bag promotion <p>(2) 3R Training at the Natabua Corrections Centre</p> <ul style="list-style-type: none"> - Started since September 2015. - Site: Natabua Correction Centre - Activity: Recyclables collection, Home Composting

(2) Nadi Town Council: NTC

Table 3-11: NTC-Output 1. Separate collection of recyclables (CBD Town expansion)

Item	Contents
Implemented Period	<p>Not implemented</p> <p>(According to the PO, the NTC was supposed to start separate recyclables collection at the CBD area in Jun. 2015.</p>
Target area	<ul style="list-style-type: none"> The Central business district (CBD) of Nadi Town Ward Town

Activities implemented	<ul style="list-style-type: none"> Discussed whether the activity should be implemented or not. (C/P, Expert) Examined alternative ways (C/P, Expert)
Status of achievements	<p>[Indicator] 1. Participation rate of target premises: 20%</p> <p><State of achievements> <u>Not achieved (not implemented)</u></p>
Results of implementation and evaluation	<ul style="list-style-type: none"> In the Solid Waste Management Plan of the Nadi Town Council (2009-2017), the NTC intended to introduce the separate collection of recyclable system into all Wards, namely Namaka Ward, Martintar Ward and Town Ward, by Dec. 2017. However, the collection system is not introduced into the CBD area of Town Ward as of Dec. 2015. The coverage rate of service provided remains 90.9%. Lack of capacity of the NTC Health Department. It is not feasible for only two C/Ps to cover activities, such as to develop the calendar, to explain activities to the community by going door-to-door and to monitor the collection services, etc.
Recommendations	<ul style="list-style-type: none"> One of the main works of the Health Department is to provide business licences and monitoring inspections. It is suggested that the NTC should provide the contact information of recyclers to businesses and encourage their voluntary efforts for 3R activities.
Work plan for FY2016	<ul style="list-style-type: none"> This outcome was excluded from the work plan for FY 2016

Table 3-12: NTC-Outcome 2. Separate collection of recyclables

Item	Contents
Implemented Period	<p>Since Sep. 2009 -</p> <p>* The activity has continued since 3R Project's time</p>
Target area	<ul style="list-style-type: none"> The Namaka Ward and the Martintar Ward (including CBD areas)
Activities implemented	<ul style="list-style-type: none"> Analyzed the implementation status (amount of recyclables collected, participation rate, operation cost, etc), extraction of issues, examination of countermeasures (C/P, Expert) Conducted awareness activity by distribution of collection calendar (annually, printing cost is bore by NTC) (C/P, Expert) Coordinated with recycling companies (C/P, Expert) Verified the effectiveness of the system (C/P, Expert)
Status of achievements	<p>[Indicators] 1. Amount of recyclables: 15,000kg/year</p> <p><Status of achievements></p> <ul style="list-style-type: none"> FY 2014 – <u>Achieved</u> (actual results: more than 15,047kg) FY 2015 – <u>likely achieved</u> (actual results: 9,710kg in total from Mar. 2015 to Nov. 2015 for 9 months (* PET bottles, glass bottles and hard plastics are not included in the above figures)
Results of implementation and evaluation	<ul style="list-style-type: none"> In collaboration with the engineering department where the MPT truck is maintained, the collection system has already been made into a routine. Turnover of collection staffs requires training as they play an important role in terms of monitoring of discharge manner, condition of recyclables discharged and awareness activity. As well as the LCC, the NTC is still struggling with low participation rate, etc.
Recommendations	<ul style="list-style-type: none"> The NTC has a plan on expansion of Town boundary that will affect the ongoing system. For a population of more than 15,000, outsourcing of collection service should be taken into consideration.
Work plan for FY2016	<ul style="list-style-type: none"> The same as current indicators: "15,000kg/year".

Table 3-13: NTC-Outcome 3. Home composting

Item	Contents
Implemented period	Since Sep. 2009 - * The activity has continued since 3R Project's time.
Target area	<ul style="list-style-type: none"> Within town boundary of the NTC * Target is limited to taxpayers only
Activities implemented	<ul style="list-style-type: none"> The NTC has continued their own home composting subsidy programme since 2010, and secured the budget for the purchase of compost bins. The NTC purchased 50 bins in FY 2015. (C/P) Number of bins allocated from government to NTC: 30 bins (FY2015) (DoE) The NTC conducted monitoring (use condition, provision of technical instruction, etc) (C/P) The NTC conducted awareness activities to promote home composting (setting of booth, promotion at council's event, etc) (C/P) Media awareness through community paper, newspaper and TV (in collaboration with the DoE and the Project) (C/P)
Status of achievements	<p>[Indicator]</p> <ol style="list-style-type: none"> Compost bins to be sold: 330 bins (by the end of the project) 60% of them use bins properly <p><State of achievement> Not achieved - 280 compost bins sold as of the end of Nov. 2015.</p>
Results of implementation and evaluation	<ul style="list-style-type: none"> Due to the rise in price for compost bins, it became difficult for the NTC to achieve the target, and to make matters worse, the NTC was flooded and some bins were lost or damaged. For a few months, the NTC ran out of stock after the flood, which also affected the achievement of the target. According to the monitoring results that the NTC conducted, the percentage of bins used in a good manner was 53.3% (=16/30 bins) (only bins allocated by the DoE through the National 3R Promotion Framework). Periodical monitoring is crucial to enable residents to use bins effectively.
Recommendations	<ul style="list-style-type: none"> To examine the application of the subsidy system to the rural area where there is much demand for compost bins (work demarcation with MoH (RLAs) is presupposed)
Work plan for FY2016	<ul style="list-style-type: none"> [Target] Total number of compost bins to be promoted in 2016 : 50 bins (*30 bins will be allocated by the DOE through the National 3R Promotion Framework while 20 bins from the NTC's own subsidy program.

Table 3-14: NTC-Outcome 4. Clean School Program (CSP)

Item	Contents
Implemented Period	Since Sep. 2009 - * The activity has continued since 3R Project's time.
Target area	<ul style="list-style-type: none"> The Nadi area, including schools located outside of town boundary
Activities implemented	<ul style="list-style-type: none"> Confirmed the status of implementation based on the Plan of Operation (PO) (C/P, Expert) The C/P conducted school monitoring and organized the judging and the award ceremony. (C/P) The JICA Experts provided technical advice on monitoring and judging procedure. (Expert) The C/P and JICA Experts attended events organized at target schools.

	<p>(C/P, Expert)</p> <ul style="list-style-type: none"> Examined the strategy for promotion of the CSP national wide, the C/P developed a CSP guidebook as a national version. (C/P) Meeting with Special Administrator (SA) for requesting of approvals for budget allocation (C/P, Expert) The NTC, the DoE and the JICA Expert had a meeting with the Permanent Secretary (PS) of the MoE for cooperative relation(s) for successful implementation of the CSP (Mar. 2015) (C/P, Expert) Presentation on the CSP in the technical workshop for home composting subsidy program and the CSP financial assistance (Apr. 2014) (C/P)
Status of achievements	<p>[Indicator]</p> <p>1. "20 schools" to participate by 2016</p> <p><State of achievement> <u>Achieved</u></p> <ul style="list-style-type: none"> The number of schools participating in the CSP has been steadily increasing every year. In FY 2015, 27 schools participated (135% achieved).
Results of implementation and evaluation	<ul style="list-style-type: none"> Model council for the CSP in Fiji and the Pacific. High demand for training, site visits and dispatch of local experts. The C/P has sufficient capacity to amend guideline by herself.
Recommendations	<ul style="list-style-type: none"> The NTC should focus on schools located in the town boundary considering the NTC's shortage of human resources. For schools in rural areas, it is crucial to establish a cooperative relationship with the MoE and the Rural Local Authority (RLA).
Work plan for FY2016	<ul style="list-style-type: none"> Total number of schools to be targeted in 2016 : 25 <ul style="list-style-type: none"> 1. Primary School: <ul style="list-style-type: none"> Urban (within city/town boundary): 9 Peri-urban: 7 Rural: 2 2. Secondary School: <ul style="list-style-type: none"> Urban (within city/town boundary): 2 Peri-urban: 4 Rural: 1

Table 3-15: NTC Output 5. Eco bag promotion

Item	Contents
Implemented Period	<p>Since Jul. 2012</p> <p>(*JOCV of the NTC in those days designed the program)</p>
Target area	<ul style="list-style-type: none"> The Nadi area (including tourists)
Activities implemented	<ul style="list-style-type: none"> The cut pieces and the waste materials are collected from the garment factories/ tailoring shops (with or without charges) (C/P) The above materials are provided to women's groups, and they prepared ecobags. (C/P) Women's groups bring ecobags to the NTC (Women's group). Label for ecobags are prepared by the NTC.(C/P) Awareness raising on the promotion of Eco-bags (at council office and coffee shops, market, etc) (C/P)
Status of achievements	<p>[Indicator] Ecobags to be sold by 2016: 3,000 bags</p> <p><Status of achievements> <u>Achieved</u></p> <ul style="list-style-type: none"> Sold 3,002 bags as of the end of Nov. 2015. (508 bins in FY 2015) (100% achieved)
Results of implementation and evaluation	<ul style="list-style-type: none"> Insufficient supply of cut- pieces or the waste pieces for making bags. The Nadi area has a big potential to sell more bags but the advertising target set by the NTC is mostly narrowed down to local residents to reduce the use of plastic bags for shopping.

Recommendations	<ul style="list-style-type: none"> In order to achieve the objective of the activity, the introduction of a charging system for plastic bags is crucial and effective. In the National 3R Policy, plastic shopping bag reduction is regarded as one of the strategies to achieve the policy goals, and the DoE is examining how to introduce a charging system, that will accelerate the sales of ecobags as an alternative way. The NTC is tourist center in Fiji and their ecobags are one of the best souvenirs for tourists. It is recommended to extend the market by working together with souvenir shops. Even if the price of materials increases in the future, it is still possible to maintain sales.
Work plan for FY2016	<ul style="list-style-type: none"> [Target] Eco-bags to be sold in 2016 - 500 bags

(3) Sigatoka Town Council: STC

Table 3-16: STC-Output 1. The existing final disposal site is rehabilitated

Item	Contents
Implemented period	<p>Since Sep. 2013 -</p> <p>*Background: The STC was included in the target councils in 2012. In 2013, in order to examine the most effective and strategic SWM/3R activities for the Sigatoka Town Council, the current SWM system, including waste generation amount, waste flow, waste collection and disposal system, 3R activities and financial situation was reviewed by the J-PRISM Expert and the STC C/P. The results of the review were put into "the draft Solid Waste Management Plan for STC". As a result of the review works, "Improve current dumpsite operation and maintenance" was identified as one of the prioritized activities, so this outcome was included in the project activities in 2014.</p>
Target area	<ul style="list-style-type: none"> The Sigatoka final disposal site
Activities implemented	<ul style="list-style-type: none"> Drafted STC Solid Waste Management Plan (Jul. 2013) (C/P, Expert) Drafted landfill rehabilitation plan, Shared the draft plan during the stakeholder meeting (Sep. 2013, Jul. 2014 (amended)) (C/P, Expert) As a part of the EIA approval procedure, the STC submitted the Construction Environment Management Plan (CEMP) to the DoE (Mar. 2014) (C/P, Expert) The Special Administrator (S.A.) (at the time) sent an official request letter to the JICA Fiji Office for provision of bulldozer (Apr. 2014). (C/P) Current tipping fee system was reviewed and its revision was proposed (Jun. 2014 – Feb. 2015) (C/P, Expert) Had discussion with Deputy Prime Minister who concurrently held the Minister for Local Government and Environment (at the time) (to confirm if the Sigatoka dumpsite will be kept in operation or closed down) (Jun. 2014) (C/P, Expert) Conducted training for landfill management for STC officers and dump attendants at the Lautoka Vunato final disposal site (Jun. 2014) (C/P, Expert) Conducted a site survey for the rehabilitation plan (topographic survey) (outsourcing to a local private company) (Jun. – Jul. 2014) (C/P, Expert) Carried out cost estimation of rehabilitation of existing STC landfill; Clarified the responsibilities of the STC and the Project/JICA before finalizing the implementation schedule (Jul. 2014) (C/P, Expert) Implemented rehabilitation earthworks at the STC landfill (confirmation of STC landfill boundary and procedure of rehabilitation earthworks, moving existing discharged waste and making embankment, covering soil on moved existing waste, constructed access road, constructed separate discharge area (for garden waste, bulky waste, separated bottles), rainwater drain, constructed car wash area, installed signboard, etc.) (Sep. – Oct. 2014) (C/P, Expert) Drafted operation and maintenance manual for counterpart and gave

	<p>power point presentation for explanation to visitors, and conducted the training on site for the STC officers and landfill workers (Oct. 2014). (Expert)</p> <ul style="list-style-type: none"> • Conducted training for the DoE and other council counterparts during the J-PRISM regular joint meeting (Oct. 2014) (C/P, Expert) • Introduced the registration system for waste pickers, held meeting with waste pickers (Oct. 2014) (C/P, JOCV, Expert) • Rehabilitated landfill was launched by Permanent Secretary (PS) for Ministry of Local Government, Housing and Environment (Oct. 2014) (C/P, Expert) • Established Landfill monitoring committee, and 1st monitoring was conducted (Oct. 2014) (C/P JOCV, Expert) • Carried out OJT training on landfill operation and maintenance (since Oct. 2014) (Expert) • Provided technical advice for prevention of landfill fire events (Apr. 2015) (Expert) • Examined the duty and responsibility for landfill management that is carried out by the councils (Jun. 2015) (Expert)
Status of achievements	<p>[Indicator] 1. Number of fire/smoke and complaints from the citizens is decreased</p> <p><Status of achievements> <u>Not achieved</u></p> <ul style="list-style-type: none"> • Couldn't be judged due to lack of records.
Results of implementation and evaluation	<ul style="list-style-type: none"> • According to the recommendations made by the JICA Expert, the STC amended the amount of tipping fees to ensure proper landfill operation and maintenance. However, the collected tipping fee is included in the general account, so the budget for landfill operation and maintenance is still insufficient. • The Project completed the rehabilitation work in Oct. 2014 and started landfill operation using the STC's own digger. The landfill had been maintained well until early Apr. 2015. At the end of Apr. 2015, a large fire occurred in the rehabilitated landfill during the absence of the JICA Experts. Waste pickers setting the fire (to make it easier to extract valuable recyclables) or incoming waste including spontaneously combustible substances are considered as possible causes of the fire. Also, the STC was not able to secure heavy machinery with which to extinguish the fire (by covering with landfilled waste). This delay in action meant the fire spread. This large fire was followed by a series of small-scale fire events. • The STC owns a digger that was donated by the Japanese government in 2009 through Japanese government grant aid. Management of incoming waste using the digger was carried out three times a week as planned. However, the capacity of existing heavy machinery is too small to undertake daily landfill operation and maintenance like compaction of disposed waste and soil covering. Also, it broke down so often that it really (negatively) affects landfill management. • During this absence of heavy machinery due to machines being inoperable and when a large fire occurred, the STC hired heavy machinery from private companies. However, not many companies exist in the Sigatoka area, so the STC always has to seek companies who can provide their machinery for landfill works, and it took a lot of money and time.
Recommendations	<ul style="list-style-type: none"> • The STC should establish an independent accounting system for landfill-related revenue and expenditures. • A bulldozer is essential to properly operate the STC landfill. The STC should continue to study, from the viewpoint of securing fiscal sustainability, whether the STC should have its own bulldozer or hire one from a private company. • If the STC does hire a bulldozer from a private company, it is preferable to make a contract with a specified company that will make it easier for the STC to ensure proper landfill management in ordinary times and

	<p>immediately respond to landfill fires.</p> <ul style="list-style-type: none"> The STC officers should carry out a daily monitoring of landfill operations and management of incoming waste (visual inspection of incoming waste, guiding of incoming collection trucks, etc.) and management of waste pickers. According to the landfill rehabilitation plan, installation of fences on the boundary and upgrading the administration office were supposed to be done by the STC in 2015. It is hoped the STC will fulfill this commitment in the near future.
Work plan for FY2016	<ul style="list-style-type: none"> The STC ranks matters concerning landfill management as the most important issue in the work plan for FY2016. The target is the same as before, which is "number of fires/smoke and complaints from the citizens are decreased". In order to achieve this, the STC added one more activity to establish a record system of the number of fires, smoke, spraying, complaints, and scavengers. Also, improvement of facilities like proper gates, fencing, fire hydrants, administration office and expansion of landfill site and placement of night security are included in the plan.

Table 3-17: STC-Output 2. Hotel waste reduction

Item	Contents
Implemented period	<p>Since Jan. 2014 -</p> <p>*Background –The results of the review of the final disposal amount survey show that approximately 75 % of incoming waste is hauled from hotels. Therefore, "hotel waste reduction project" was added to the project activities.</p>
Target area	<ul style="list-style-type: none"> Pilot hotel: SHANGRI-LA'S FIJIAN RESORT AND SPA Hotels located at coral coast area
Activities implemented	<ul style="list-style-type: none"> Developed a waste flow, drafted the STC SWM Plan (May. – Jul. 2015) (C/P, Expert) Presentation for the Coral Coast Hotel Association (Sep. 2013) (C/P) Conducted a questionnaire survey for all hotels located at the coral coast area to grasp the current SWM/3R system at hotels (Jan. – Feb. 2014) (C/P) Developed an implementation plan for the STC, meeting with pilot hotel (Jan. 2014) (Expert) Meeting with recycling companies (Mar. 2014) (Expert) A pilot hotel, Shangri-La's Fijian Resort & Spa, submitted an implementation plan to the STC (Mar. 2014).(Pilot hotel) Conducted a pilot project led by the pilot hotel. The STC C/P conducted monitoring (Jul. 2014 – Feb. 2015) (Pilot hotel) Reviewed outcomes of the pilot project with the general manager of the pilot hotel, discussed the future activity plan (the STC CEO also attended the meeting) (Aug. 2015) (Pilot hotel, C/P, Expert) The STC CEO attended the regular meeting organized by the Coral Coast Hotel Associations to share the landfill issues caused by hotel waste and to request their cooperation and support (Oct. 2015) (C/P)
Status of achievements	<p>[Indicator]</p> <p>1. 3R is implemented in more than 3R hotels</p> <p><Status of achievements> <u>Not achieved</u></p> <ul style="list-style-type: none"> Most of hotels have implemented some 3R activities.
Results of implementation and evaluation	<ul style="list-style-type: none"> Between July and August 2014, the pilot hotel managed to recycle 6,400 bottles, a total of 3.84 ton. Crushed bottles will then be utilized for the flooring of the recycling shed for green waste separation and chipping. After this pilot project, the hotel expanded a waste separation system to each guest room. The pilot project was successful as it was led by hotels rather than the council. The implementation plan was developed by the hotels themselves.

	<ul style="list-style-type: none"> Periodical following-up and monitoring done by the council is crucial to make the project a success. It seems difficult for the council to conduct monitoring for hotels that are located outside of the town boundary.
Recommendations	<ul style="list-style-type: none"> For an effective and successful implementation of hotel waste reduction project, some regulations imposed by the national government are required. In the 5th JCC which was held in Mar. 2016, the DoE presented the future plan that all hotels shall be subject to the obligation to make efforts to reduce their waste as one of the criteria of the current waste permit system. Also, the government should consider providing some incentives such as provision of awards and certification for hotels that actively implement 3R activities. The STC should continuously negotiate with recycling companies for smooth implementation of recyclables collection in order to make the collection system efficient. The STC should continue communication with hotels through attendance of the Coral Coast Hotels Association to encourage individual hotels to take such actions for 3R.
Work plan for FY2016	<ul style="list-style-type: none"> The STC has prioritized hotel waste reduction as the most important issue in the work plan for FY2016 as well as landfill management. The target is the same as the current one, which is "3R is implemented in more than three hotels".

Table 3-18: STC-Outcome 3. Market waste composting

Item	Contents
Implemented period	Since Jun. 2011 - * The activity has continued since the JOCV started implementation in 2011.
Target area	<ul style="list-style-type: none"> Municipal vegetable market Compost yard located in the premises of OISCA (NGO)
Activities implemented	<ul style="list-style-type: none"> The STC previously suspended the market waste composting project due to the renewal works at the municipal market (Apr. – Sep. 2014) (C/P, Expert) The Memorandum of Agreement (MOA) between the STC and OISCA was renewed twice (Sep. 2014, Oct. 2015) (C/P, JOCV, Expert) The effect of waste minimization and cost-effectiveness was examined (Sep. 2014) (Expert) The STC purchased a trailer that would enable it to double the amount of waste transported to OISCA in two trips (it previously took three trips) (Feb. 2015) (C/P) OISCA started taking the market waste to their compost yard by themselves although infrequently, which is expected to save the STC transportation and labor costs (Jun. 2016). (OISCA) Site conditions and status of implementation were monitored, Meeting with OISCA (continued) (C/P, Expert) Election of market committee comprising representatives of market vendors, Attachment staff of the STC started recording status of implementation (Jul. 2015) (C/P) The STC purchased ten (10) wheelie bins for segregation of market waste; the Project funded posters and stickers for new wheelie bins (Aug. 2015) (C/P, JOCV, Expert) The STC organized the awareness workshop for market vendors and demonstration of waste separation for the members of the market committee (Aug. 2015) (C/P, Expert) The STC distributed circulars for farmers in the neighborhood to encourage them to take market waste from the market (Aug. 2015) (C/P, Expert)
Status of achievements	<p>[Indicator]</p> <p>1. "20%" of market waste is reduced through composting and other 3R activities</p>

	<p><Status of achievements> <u>Not achieved</u></p> <ul style="list-style-type: none"> • Couldn't calculate the recycling rate due to lack of data and records before Jul. 2015. • According to the monitoring data, the collection amount of market waste per month is 2.0 ton per month. The average recycling rate: 10.8% (FY 2015)
Results of implementation and evaluation	<ul style="list-style-type: none"> • The STC initially proposed to start composting at the Sigatoka final disposal site instead of working with OISCA. As a result of cost analysis and comparison carried out by the JICA Expert, it is obvious the current system, under the partnership with OISCA, is more efficient and has significantly lower costs. The STC should focus on improvement of segregation, collection and transportation of market waste while OISCA is in charge of compost manufacturing. To ensure this arrangement is sustainable STC needs to improve its communication with OISCA and to ensure its operations run smoothly and reliably (regular and reliable delivery of market waste to allow OICA to conduct its composting operations). • A trailer was expected to enable double the amount of waste to be transported to OISCA. However, the amount of waste transported to OISCA remains only 1.5 times that previously transported due to inadequate access roads from the town to OISCA. • The STC assigned a full-time person in charge of segregation, collection and transportation of market waste at market that result in smooth implementation of the project. • For a successful implementation of the market composting project, it is crucial to gain support from the market master who oversees management of the market and who has his own human network with the market committee and market vendors.
Recommendations	<ul style="list-style-type: none"> • In order to increase the recycling rate, it is preferable to increase the frequency of collection and transportation to OISCA. If it is difficult to increase the frequency, the STC should consider other options, for example, (1) to request OISCA for voluntary collection, and 2) to encourage pig farmers to take away market waste (to use as pig feed). • Component analysis of produced compost should be conducted periodically to ensure the quality of compost.
Work plan for FY2016	<ul style="list-style-type: none"> • The target is the same as the current one, which is "20% of market waste is reduced through composting and other 3R activities".

Table 3-19: STC-Outcome 4. Clean School Program (CSP)

Item	Contents
Implemented period	<p>Since Jan. 2012</p> <p>* The activity has continued since the JOCV started implementation in 2011</p>
Target area	<ul style="list-style-type: none"> • Sigatoka area (including some rural schools)
Activities implemented	<ul style="list-style-type: none"> • Confirmed the status of implementation based on the Plan of Operation (PO) (C/P, Expert) • The C/P conducted school monitoring and organized the judging and the award ceremony. (C/P, Expert) • The JICA Experts provided technical advice on monitoring and judging procedure. (Expert) • The C/P and JICA Experts attended events organized at target schools. (C/P, Expert) • The Presentation on the CSP in the technical workshop for home composting subsidy program and the CSP financial assistance (Apr. 2014) (C/P) • The Project was stopped due to transfer of the C/P in charge (Jul. 2015) and expiration of the JOCV's term (Sep. 2015), Attachment of the STC resumed the CSP and some action plans from target schools were collected (Oct. – Nov. 2015) • The JOCV of the STC organized the 3R Art Exhibition as an alternative

	event of the CSP (FY 2015) (JOCV)
Status of achievements	<p>[Indicator] 1. 3R activities are implemented by 10 schools</p> <p><Status of achievements> <u>Not achieved</u></p> <ul style="list-style-type: none"> - The CSP had been implemented until 2014. However, it failed to be implemented in 2015.
Results of implementation and evaluation	<ul style="list-style-type: none"> • Although the human capacity of the STC is limited, the STC has established a good relationship with stakeholders, namely Shangri-La's Fijian Resort & Spa, the National Trust, OISCA, etc. These stakeholders play an important role to complement the limited capacity of the STC.
Recommendations	<ul style="list-style-type: none"> • It is recommended that the STC should work together with stakeholders due to the limited capacity of the STC. • The STC should focus on schools located in the town boundary considering the STC's shortage of human resources. For schools in rural areas, it is crucial to establish a cooperative relationship with the MoE and the Rural Local Authority (RLA).
Work plan for FY2016	<ul style="list-style-type: none"> • The target is the same as the current one, which is "3R activities are implemented by 10 schools".

Table 3-20: STC Output 5. Home composting

Item	Contents
Implemented period	<p>Since Apr. 2015 -</p> <p>* This activity was added to the PO in FY 2015 due to implementation of the National 3R Promotion Framework</p>
Target area	<ul style="list-style-type: none"> • The Sigatoka area including rural area
Activities implemented	<ul style="list-style-type: none"> • 10 compost bins have been given by the DOE to the Sigatoka Town Council (May 2015) (DoE) • Compost bins were promoted during the awareness workshop for market vendors (Aug. 2015) (C/P) • All bins sold out (Nov. 2015). (C/P) • The STC, with the technical assistance of the JICA Expert, conducted monitoring for bins (Aug. – Dec. 2015) (C/P, Expert)
Status of achievements	<p>[Indicator] 1. Sales of home compost bins to at least five ratepayers 2. 25% successful composting on first trail (* Number of bins allocated from government to STC: 10 bins (FY2015))</p> <p><Status of achievements> <u>Achieved</u></p> <ul style="list-style-type: none"> • 11 compost bins sold as of the end of Nov. 2015. • 55% (=6/11) of bins sold are used properly
Results of implementation and evaluation	<ul style="list-style-type: none"> • Periodical monitoring is crucial to enable residents to use bins effectively. • The STC made use of various opportunities such as awareness workshops for market waste composting projects to promote compost bins. • As STC officers did not clearly understand the rule of distribution, the STC sold more than one bin to the same owner. Also, some owners were not willing to accept monitoring done by the council.
Recommendations	<ul style="list-style-type: none"> • To meet high demand for compost bins, the council should distribute bins fairly (one bin per household). • Application Form with Terms of Condition (ToC) for owners should be given prior to the purchase.
Work plan for FY2016	<ul style="list-style-type: none"> • The target is "Sale of home compost bins to 20 ratepayers/rural residents as well".

(4) Ba Town Council: BTC

Table 3-21: BTC Output 1. Market Compost Project

Item	Contents
Implemented period	July, 2012 - (The waste separation/compost production started at the end of August, 2012, after BTC constructed the compost yard behind the Ba Market. The project was suspended from March 2014 to September 2014 due to the absence of any counterparts assigned to the Project)
Target area	<ul style="list-style-type: none"> Ba Market
Activities implemented	<p>In 2014</p> <ul style="list-style-type: none"> A waste discharge place between the market and compost yard was constructed in September by BTC. Before the suspension, the project faced the following issues. <ul style="list-style-type: none"> ✓ The C/P could not manage the project well due to her busy schedule ✓ waste separation at the market was deteriorated due to the lack of awareness activities, which was planned to be implemented regularly by the C/P. The following two measures were taken, in order to reduce the burden of the C/P and to improve the project management. (Expert, C/P) <ul style="list-style-type: none"> ✓ An officer, who is responsible for public park management, was assigned as a responsible person for compost production management, by the C/P. Two collection workers are responsible for data collection/recording, while the C/P is mainly responsible the data management and awareness for waste separation. ✓ The separation/collection/transportation method of vegetable waste was modified by the C/P and Expert. Two workers were asked to conduct the second waste separation at the waste discharge place, on the way from the market to the compost yard, and this made it possible for the C/P to reduce the time necessary for awareness raising activities to promote waste separation.
Status of achievements	<p><Indicator> 38 tons of vegetable waste is recovered annually (on average 3.2 ton/month). Compost is used at public parks, a nursery shed, and flower gardens along the street (BTC has no plan to sell the compost).</p> <p>< Achievement> Achieved Since March 2015, the average monthly amount of collected vegetable waste for compost production is 3.7 ton.</p>
Results of implementation and evaluation	<ul style="list-style-type: none"> After resuming the project, the BTC could manage the project smoothly by easing the burden of the C/P The basic approach is to design a system, in which the BTC can manage the project with limited number of officers/workers. The compost yard and waste discharge place are located just behind the market, and this makes it possible for the BTC to collect/transport vegetable waste from the market to the compost yard only by two workers. The layout of the waste discharge place, located between the market and compost yard, also makes it possible to remove rubbish from vegetable waste in containers at the waste discharge place on the way to the compost yard, even though vegetable waste is mixed with rubbish at the time of discharge. This minimized the time, which the C/P spent for awareness activities at the market. As a result, the BTC could manage the compost project with a minimum number of staff. Finished compost is used at public parks, a nursery shed, and gardens along the streets.
Recommendations	<ul style="list-style-type: none"> To maintain the simplified collection/transportation system

	<ul style="list-style-type: none"> To keep the monthly collection amount of vegetable waste at 2 -3 ton.
Work plan for FY2016	<ul style="list-style-type: none"> BTC has a plan to continue the project without changing the compost production capacity, recovering 40 ton of vegetable waste per year

Table 3-22: BTC Output 2. Promotion of 3R Education at Schools (CSP)

Item	Contents
Implemented period	January 2013 - (the project was suspended from March 2014 to September 2014 due to the absence of the C/P)
Target area	<ul style="list-style-type: none"> Schools in Ba Town and peripheral areas
Activities implemented	<p>In 2013 BTC started CSP, after Teachers' workshop was held in March; officers from NTC were requested to be facilitators, by the C/P, Expert, JOCV In 2014</p> <ul style="list-style-type: none"> Workshops were organized at by C/P and JOCV from January to February and 15 schools submitted action plans. Final judging was held after resuming the program in October by the C/P <p>In 2015</p> <ul style="list-style-type: none"> Meetings were held at each of the 15 schools in March by C/P Monitoring of each school was conducted twice by C/P The 12 schools that completed the program were visited for final judging in cooperation with a Rural Health Inspector and the award ceremony was held in November by C/P
Status of achievements	<p><Indicator> 16 schools (11 schools inside the town boundary and 5 schools in the peripheral areas) complete the program <Achievement in 2014> Not achieved The C/P conducted the final judging, targeting all the fifteen schools. The activities of some schools became inactive due to the lack of regular monitoring activities by the C/P. <Achievement in 2015> Mostly achieved 15 schools submitted action plans and 12 schools completed the program</p>
Results of implementation and evaluation	<ul style="list-style-type: none"> In 2015, the C/P, a health inspector, completed minimum required works, visiting each school twice for monitoring and conducting the final judging, because her workload of the market compost project was reduced. Schools need more support to increase the quality of their activities. In order to continue CSP outside the town boundary, it is indispensable for the C/P to establish cooperation with the RLA/MOH.
Recommendations	<ul style="list-style-type: none"> Without first gaining agreement of cooperation from the RLA/MOH, it is better not to increase the number of participating schools outside the town boundary It is necessary to increase the quality of school activities by arranging an opportunity for school teachers to know best practices and to exchange information on CSP activities with other teachers. (Need understanding and cooperation of Ministry of Education).
Work plan for FY2016	<ul style="list-style-type: none"> To continue the CSP with the goal of 12 schools (starting the CSP activities as soon as possible after the new school year starts)

Table 3-23: BTC Output 3. Promoting of Home Composting

Item	Contents
Implemented period	May 2015 -
Target area	<ul style="list-style-type: none"> Ba Town and its peripheral areas

Activities implemented	<ul style="list-style-type: none"> Selling of compost bins was started after airing of TV and press advertisements began (selling compost bins mainly to those who contacted the BTC after attracted by TV or press advertisements) User's manual were distributed when delivering bins (providing no additional instructions on how to use the compost bin) Two households with compost bins were visited once for monitoring
Status of achievements	<p><Indicator></p> <ul style="list-style-type: none"> 10 bins are properly used <p><Achievement> Not achieved</p> <ul style="list-style-type: none"> 10 bins were sold, five bins inside the town boundary and the rest at peripheral areas (three households bought two bins each. The total number of households/organizations who bought bins is seven) The BTC could not grasp the conditions of almost all the bins it sold, due to the lack of monitoring.
Results of implementation and evaluation	<ul style="list-style-type: none"> Unlike CSP, BTC's C/P could spend little time for Home Composting Project, visiting only two households for monitoring (just one time for each), due to her busy work schedule. The BTC provided a user's manual but did not provide additional instructions on how to use compost bins. It is likely that some of the compost bin buyers did not understand well how to use bins, but the BTC could not get to know how much they understood, due to the lack of monitoring. The Council installed a compost bin next to its nursery shed inside the premises of the council office.
Recommendations	<ul style="list-style-type: none"> The BTC should start to sell compost bins after the council makes the subsidy program widely known. It seems still difficult for the C/P to spend enough time for monitoring activity next year. The BTC should give instructions on how to use the compost bin when it is being sold. The council should utilize the compost bin installed within its premises to show how to install and use a bin, what compost is like and which conditions of compost are appropriate, and so on. If the council office staff can share the responsibility of taking care of compost for demonstration, the BTC could increase the number of staff who can explain compost and provide an instruction for those who want to buy compost bins.
Work plan for FY2016	<ul style="list-style-type: none"> To sell 10 new bins to only rate payers (households only inside the town boundary) To install a compost bin next to a nursery shed on the premise of the BTC office to demonstrate how to use a compost bin, as well as to illustrate what compost is and what the proper conditions of compost are.

(5) Tavua Town Council (TTC)

Table 3-24: TTC Output1. Promotion of 3R Education at Schools (CSP)

Item	Contents
Implemented period	January 2013 - (all the J-PRISM activities were suspended from March 2014 to September 2014 due to the absence of the C/P)
Target area	<ul style="list-style-type: none"> Primary and secondary schools in Tavua Town (after the CSP started, three schools in peripheral areas participated in the program)
Activities implemented	<p>In 2014</p> <ul style="list-style-type: none"> All the J-PRISM activities were suspended. <p>In 2015</p> <ul style="list-style-type: none"> New CEO appointed a waste collection driver, who is available only on Thursday to work for J-PRISM, as the J-PRISM C/P. He is also

	<p>irregularly assigned to various works such as preparation work for the visits of VIPs and festivals</p> <ul style="list-style-type: none"> • The CEO visited schools in Tavua Town to have a meetings with with the head teachers (C/P) • Newly appointed C/P joins one of the workshops, organized by the RTT in March • The C/P and Expert conducted the first school monitoring with a standard monitoring sheet, prepared by the DOE in August. After that he tried to visit three more schools for monitoring, but due to various irregular works, he completed the first monitoring in October. (Expert, C/P)
Status of achievements	<p><Indicator></p> <ul style="list-style-type: none"> • Four schools participate in the CSP <p><Achievement> Not achieved</p> <ul style="list-style-type: none"> • Three schools in Tavua Town and one school in a peripheral area completed the school program • The TTC could not conduct the second school monitoring and the final judging
Results of implementation and evaluation	<ul style="list-style-type: none"> • Since the start of J-PRISM, the main problem for the TTC is the absence of an officer suitable for J-PRISM activities. In 2013 and 2014, Market Master and CEO were appointed as C/P respectively, and both of them were too busy for their main work to implement necessary work such as school visits. As a result, CPS was suspended early in both years. • At first, it was a bit difficult for a newly appointed C/P to understand the CSP due to the lack of knowledge and experience in the field of solid waste management • The first monitoring was started in August and he needed two month before completing the first monitoring work. In addition, the assignment of other works in November made it impossible for the C/P to conduct the second monitoring and final judging before the end of November. (The schools start summer break in the beginning of December)
Recommendations	<ul style="list-style-type: none"> • Following the examples in Ba and Rakiraki, it is better to establish a cooperative relation with the RLA/MOH • The TCC's C/P is not a health inspector and did not know the C/Ps of other councils before joining the project. It is necessary for him to actively discuss with them at a regular meeting.
Work plan for FY2016	<ul style="list-style-type: none"> • Three schools participate in the CSP. • If schools are outside the town boundary, it is necessary to establish a cooperative relation with the RHA/MOD in order to work with a rural health inspector.

Table 3-25: TTC Output 2. Promotion of Home Composting

Item	Contents
Implementation period	May 2015, -
Target Area	<ul style="list-style-type: none"> • Tavua Town and its peripheral areas
Activities implemented	<ul style="list-style-type: none"> • Started selling compost bins before TV and newspaper advertisements of the DOE started (started selling bins to limited number of people before making the subsidy program widely known) by the C/P • Provided a user's manual when delivering bins (providing no additional instructions on how to use a compost bin) • Conducted the first monitoring at two households with a monitoring sheet, with the support from the Expert, in August. by the C/P and Expert • the C/P tried to visit other households but could not because in other cases nobody was at home during the daytime or they are located outside the town boundary.

status of the achievement	<p><Indicator></p> <ul style="list-style-type: none"> At least four bins are properly used. <p><Achievement> Not achieved</p> <ul style="list-style-type: none"> All 10 bins were sold Two bins sold to three rate payers: six bins One bin sold to three households outside the town boundary: 3 bins One bin sold to a school: one bin The TTC could not grasp the conditions of bins due to a lack of monitoring
verification result of activities	<ul style="list-style-type: none"> The TTC C/P visited only two households, which bought two bins each. Only one bin was used at both households The TTC C/P could not visit household outside the town boundary The TTC provided a user's manual but did not provide additional instructions on how to use compost bins. It is likely that some of compost bin buyers did not understand how to use bins, but the TTC did not get to know how much they understood, due to the lack of monitoring.
Recommendations	<ul style="list-style-type: none"> The TTC should start to sell compost bins after the council makes the subsidy program widely known. Like the BTC, there is a nursery shed inside the premises of the TTC office. It is better for the Council to install a compost bin for demonstration.
Activity plan after 2016	<ul style="list-style-type: none"> To sell five new bins households: three bins school: one bin business: one bin Target area: only Tavua Town

(6) Rakiraki Town Council (RTC)

Table 3-26: RTC Output 1. Promotion of 3R Education at Schools (CSP)

Item	Contents
Implemented period	March 2013 - (activities in 2014 were suspended after the C/P was assigned to other work)
Target area	<ul style="list-style-type: none"> Schools in Rakiraki Town and its peripheral areas
Activities implemented	<p>In 2014</p> <ul style="list-style-type: none"> The RTC organized Teachers' Workshop, with support from NTC, by C/P and Expert The RTC C/P suspended the CSP activities after the first school monitoring, because she was assigned to other work. (the second monitoring and final judging were not implemented) <p>In 2015</p> <ul style="list-style-type: none"> The RTC resumed the CSP after the new C/P, who served both as CEO and Senior Health Inspector, was appointed. The RTC C/P and the JOCV organized workshops at all the schools, and six schools submitted action plans The RTC C/P implemented the second school monitoring and the final judging in November with support from a Rural Health Inspector of the Ra Province and a Peace Corps volunteer, who was assigned to a local office of the MOH and the MOE in the Ra Province, after conducting the first monitoring by himself. (the award ceremony will be organized early next year.)
Status of achievements	<p><Indicator></p> <ul style="list-style-type: none"> Seven schools participate in the CSP <p><Achievement> Almost achieved</p> <ul style="list-style-type: none"> Six schools completed the CSP The RTC implemented the school monitoring and final judging

Results of implementation and evaluation	<ul style="list-style-type: none"> Since SA left the office due to the expiration of his contract in August, 2015, the C/P serves as SA as well as CEO/Health Inspector and his schedule is tightened further. After completing workshops at all the schools in February and March, the RTC's activities got inactive, because the C/P was too busy and the JOCV moved from Rakiraki to Sigatoka. The RTC somehow completed the two-time monitoring works and the final judging with the support from a Rural Health Inspector and a Peace Corps volunteer.
Recommendations	<ul style="list-style-type: none"> The RTC should work closely with the RLS/MOH. It is better for the RTC to actively discuss and exchange information with other councils. It is necessary to strengthen communication with schools in order to provide proper advice.
Work plan for FY2016	<ul style="list-style-type: none"> Seven schools participate in the CSP To continue cooperation with a Rural Health Inspector of the RLA/MOH and a Peace Corps volunteer next year

Table 3-27: RTC Output 2. Data Collection Work

Item	Contents
Implemented period	<p>November 2012 – December 2012</p> <p><Background> When an urban center in the Rakiraki region of Ra Province was incorporated as a Town in 2006, RTC took over the works related to solid waste management from Ra Province. Since RTC did not have some of basic data on solid waste management, RTC and J-PRISM agreed to add "Data Collection Work" as one of outputs. In 2013, the C/P and Expert conducted two surveys of waste collection vehicles at the Rakiraki disposal site and recycling activities at hotels in Rakiraki.</p>
Target area	<ul style="list-style-type: none"> Rakiraki Town
Activities implemented	<p>In 2015</p> <ul style="list-style-type: none"> Collected the data and information such as financial information, which could not be collected in 2013 by C/P (an additional survey on the collected waste at the Rakiraki disposal site could not be implemented) Formulated an organic waste recycling plan by C/P and Expert
Status of achievements	<p><Indicator></p> <ul style="list-style-type: none"> To formulate the organic waste recycling strategy <p><Achievement> Achieved</p> <ul style="list-style-type: none"> To formulate the organic waste recycling plan in December
Results of implementation and evaluation	<ul style="list-style-type: none"> The RTC collected the data and information necessary to estimate the waste generation amount The RTC C/P was too busy to conduct an additional survey at the disposal site, and formulated the organic waste recycling plan with the data obtained in 2013.
Recommendations	<ul style="list-style-type: none"> It is better for the RTC to implement the organic waste plan, while exchanging information with the SCC and the LCC. It is preferable to conduct the second market survey and disposal site survey before implementing the organic waste recycling
Work plan for FY2016	<ul style="list-style-type: none"> Several months after the RTC acquires a collection truck and starts collection service, the council will consider implementing the recycling plan (this activity will not be included in APO in 2016)

Table 3-28: RTC Output 3. Promotion of Home Composting

Item	Contents
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Implemented period	May 2015 -
Target area	<ul style="list-style-type: none"> Rakiraki Town and its peripheral areas
Activities implemented	<ul style="list-style-type: none"> Started selling compost bins before TV and newspaper advertisements of the DOE started (started selling bins to limited number of people before making the subsidy program widely known) by C/P Provided a user's manual when delivering bins by C/P The JOCV provided compost training for one hotel and introduced a good practice of a hotel in Nadi, by JOCV and Expert Conduct monitoring of only one hotel, by C/P
Status of achievements	<p><Indicator></p> <ul style="list-style-type: none"> At least four bins are properly used. <p><Achievement> not achieved</p> <ul style="list-style-type: none"> All the 10 bins were sold Two bins each for two hotels: four bins Four bins for farmers: four bins One bin for a rate payer: one bin One bin for a school: one bin Only two bins were monitored by the RTC.
Results of implementation and evaluation	<ul style="list-style-type: none"> As mentioned in the result and evaluation of CSP, the C/P is too busy for his regular works as SA/CEO and a health inspector, and he rushed to sell bins targeting limited number of people before the start of TV and newspaper advertisement, in order to minimize the time for selling bins. It is undesirable to sell plural bins for each buyer, judging from the standpoint of fairness The RTC C/P was too busy to conduct monitoring work
Recommendations	<ul style="list-style-type: none"> The RTC should start to sell compost bins after the council makes the subsidy program known widely. It is critical for RTC to appoint an officer, who is responsible for monitoring, in order to implement the home composting project properly It is necessary to provide instructions on how to use a compost bin at the time of selling. It is better to consider using the case of Tanoa Hotel, which is using compost bins properly and has a plan to start vegetable growing with compost, as a good practice to promote composting at other hotels
Work plan for FY2016	<ul style="list-style-type: none"> To appoint someone as person in charge of promoting home composting and to request the DEO or councils to train her/him To sell 10 new bins, targeting only rate payers

(7) Suva City Council: SCC

Table 3-29: SCC Output 1. Data & information collection (for SWM Master Plan)

Item	Contents
Implemented period	August 2013 -
Target area	<ul style="list-style-type: none"> SWM data of Suva City Council
Activities implemented	<ul style="list-style-type: none"> Grasped the current SWM data management systems of the Suva City Council by the C/P and Exper Compiled the data on garbage waste collection service by the SCC into the database by the C/P and Exper Modified the management systems of the data, regarding the contracted out garbage collection services by the C/P and Exper Made the SWM data management rules to share the data and information on SWM at Health & Service Department by the C/P and Exper

Status of achievements	<p><Indicator></p> <ul style="list-style-type: none"> At least two officers can use the database <p><Achievement> Achieved</p> <ul style="list-style-type: none"> One SCC C/P and an officer who supervises the garbage collection service by the SCC can manage the database
Results of implementation and evaluation	<ul style="list-style-type: none"> The SCC C/P collects and manages all the data under the SCC (not only the Health & Service department but also two other departments are responsible for solid waste management) The SCC C/P is responsible for collecting the data, making/submitting monthly reports, and analyzing the data
Recommendations	<ul style="list-style-type: none"> It is necessary for the SCC C/P to analyze the data, after the SCC gets a few years of data, in order to grasp the trend and to make a future plan.
Work plan for FY2016	<ul style="list-style-type: none"> To continue the data management work, with the goal of formulating the Master Plan

Table 3-30: SCC Output 2. Market Compost Project

Item	Contents
Implementation period	<p>June 2013 –</p> <p><Background></p> <p>SCC had been making compost using vegetable waste at a small scale since 2007 with the support from JOCV. In 2012 the council decided to develop the market compost project into full scale by construction a new compost yard with the Grant assistance for Cultural Grassroots Projects of Japan and requested J-PRISM for its support.</p>
Target Area	<ul style="list-style-type: none"> The Suva Market
Implemented activities	<p>In 2014</p> <ul style="list-style-type: none"> Started waste separation at the Suva Market in March Decided on the most suitable location of bins for vegetable waste (i.e. whether to be inside or between stalls, etc.) and on a collection method of bins by the C/P and Expert Organized a compost training for workers and examined the modification of compost method by the C/P and Expert Analyzed the financial effect of the project by the C/P and Expert <p>In 2015</p> <ul style="list-style-type: none"> Increased the amount of collected vegetable waste by increasing the number of trips from one to two, when necessary, with a newly procured vehicle Continues data analysis (by the C/P)
Status of achievement	<p><Indicator></p> <ul style="list-style-type: none"> To reduce 15% of market waste <p><Achievement> Mostly achieved</p> <ul style="list-style-type: none"> The monthly reduction rate between July 2015 and December 2015 is 10%-15%, on average, 12.4%. (the monthly collection amount of vegetable waste during the same period ranges from 19.5 ton to 28.5 ton)
verification result of activities	<ul style="list-style-type: none"> The location of bins for vegetable waste and the collection method at the Suva Market made it possible for the SCC to keep the mixture rate of rubbish low The SCC gradually increased the collection amount of vegetable waste Ninety percent of collected vegetable waste was provided for pig farmers, while the rest was used as compost material at the SCC's compost yard Between July and December, 2015, the monthly average collection amount of vegetable waste is 24.5 ton, and this resulted in the reduction of waste disposal and transportation cost, \$620 and \$1,000 respectively, every month.

Recommendations	<ul style="list-style-type: none"> It is better to increase the recycling rate, considering the Saturday collection and/or afternoon collection.
Activity plan after 2016	<ul style="list-style-type: none"> To continue the project with the goal of 20% reduction

Table 3-31: SCC Output 3. Promotion of 3R Education at Schools (CSP)

Item	Contents
Implementation period	May 2014 -
Target Area	<ul style="list-style-type: none"> Primary schools in Suva City
Activities implemented	<p>In 2014</p> <ul style="list-style-type: none"> Started the CSP by itself Organized an oratorical contest, inviting all the schools including the CSP non-participating schools <p>In 2015</p> <ul style="list-style-type: none"> Continued CSP Organized workshops at schools, conducted monitoring of each school twice Held the final judging in November
Status of the achievement	<p><Indicator in 2014></p> <ul style="list-style-type: none"> At least 6 schools participate in the CSP <p><Indicator in 2015></p> <ul style="list-style-type: none"> At least 10 schools participate in the CSP <p><achievement in 2014> Achieved</p> <p><achievement in 2015> Achieved</p> <ul style="list-style-type: none"> All the 27 primary schools are participating in the CSP
Verification result of activities	<ul style="list-style-type: none"> All the primary schools in Suva City implemented the CSP in 2015, even though the quality of the program results at each school varied. Some schools stopped burning waste
Recommendations	<ul style="list-style-type: none"> It is necessary not only to increase the number of participating schools but also improve the quality of activities at each school by introducing good practices of other schools
Activity plan after 2016	<ul style="list-style-type: none"> To continue the CSP targeting not only primary schools but also secondary and special schools primary schools: 27 secondary schools: 19 special schools: 4 To include the number of schools that have stopped burning waste as an indicator of the program

Table 3-32: SCC Output 4. Promoting Home Composting

Item	Contents
Implementation period	December 2012 – <Background> SCC started Home Composting Promotion with UNDP fund in December, 2012. It sold 395 bins from December 2012 to the end of 2014, while providing 39 bins for free as a promotion.
Target Area	<ul style="list-style-type: none"> Suva City
Activities	<p>In 2015</p> <ul style="list-style-type: none"> Sold 30 bins, provided from the DOE, along with bins procured with the UNDP fund
Status of the achievement	<p><Indicator></p> <ul style="list-style-type: none"> 80 bins are properly used (30 bins out of 80 are provided from the DOE)

	<p><Achievement> Achieved</p> <ul style="list-style-type: none"> As of the end of October, 163 bins were sold 90 bins were properly monitored but at the time of monitoring a dozen of bins were not installed yet.(about 70 bins were properly used)
Verification result of activities	<ul style="list-style-type: none"> The SCC placed newspaper advertisements by themselves, apart from the TV and newspaper advertisements paid for by the DOE Made appointments before visiting households for monitoring
Recommendations	<ul style="list-style-type: none"> Considering the percentage of monitored bins, around 55%,it is better to provide instructions on how to use a compost bin at the time of selling It is preferable to check the status of use of bins that were sold 3-4 years ago.
Activity plan after 2016	<ul style="list-style-type: none"> To sell 80 bins (requesting the DOE to provide 30 bins) To provide bins for all the 50 schools to promote school composting

a.4 Activity 1-4 Monitor the progress of 3R implementation in Fiji

With the end of the Project in mind, the Project examined an effective monitoring and evaluation system as shown in the Table 3-33, and implemented through a collaborative process between the counterparts and experts. Also, the project provided opportunities for local counterparts and related organizations to share their knowledge and expertise through the regular joint meetings, which have been a valuable opportunity for developing networks and for counterparts to share information and to learn from each other. The actual results of regular meetings are shown in Table 3-34. Through these schemes, the counterparts gained the skills for monitoring and evaluation of the project activities, the DoE improved the capacity to monitor 3R activities which are carried out by councils and communication between the DoE and target councils was strengthened.

Table 3-33: Monitoring and evaluation system

Item	Contents
1) Monitoring sheets	<ul style="list-style-type: none"> Common monitoring sheets were developed by Expert and to be utilized by councils to record the daily monitoring results of two programs, namely home composting and the CSP on site. Councils submitted the sheets to DoE after they filled out the sheets.
2) Template of monitoring report	<ul style="list-style-type: none"> Common template for monitoring report was developed by Expert. The C/P (DoE, councils) is requested to make a progress report, which was based on the designed monitoring template, and to submit it prior to each joint regular meeting. The process of making reports provided a great opportunity for counterparts: <ul style="list-style-type: none"> - to overview the works done in the year - to assess the status of achievement - to identify the good practices and lessons learnt - to examine an implementation plan for the next year The DoE compiled all the reports submitted by councils, and submitted them to the management of the Ministry with the attachment of minutes of the joint regular meeting.
3) Joint regular meeting	<ul style="list-style-type: none"> The meetings were totally arranged by the DoE, including transport arrangement, proceedings of the meeting, preparation of minutes of meetings, etc (Project sometimes bore the transportation cost). The DoE and target councils took turns organizing the joint regular meetings as shown in Table 3.22. The C/P organizations presented the summary of the above monitoring reports during the meetings.

	<p>Site visits to 3R sites were organized for before or after the meeting.</p> <ul style="list-style-type: none"> The joint regular meetings have been implemented since during the 3R Project (Oct. 2008) among the DoE, the LCC and the NTC. In FY2013, five more councils, namely the STC, the BTC, the TTC, the RTC and the SCC, joined. In FY2015, all thirteen councils were targeted due to implementation of the National 3R Promotion Framework. The non-targeted councils, the MoH (RLAs) who is in charge of SWM in rural areas and stakeholders such as recycling companies sometimes joined in the meetings.
4) Monitoring inspection conducted by DoE	<ul style="list-style-type: none"> Based on the above information (1) monitoring sheets and (2) monitoring reports, the DoE conducted monitoring inspection by visiting each council. It was a very useful activity for the DoE to understand the actual situation and issues councils have faced, and discussed the ways of moving forward for further improvement. The DoE West Office conducted monitoring inspection irregularly in FY 2014, and the DoE Waste and Pollution Control Unit conducted one in Oct. 2015 for the first time.

Table 3-34: Actual implementation results of joint regular meeting (FY2014 – FY2015)

	Date	Venue	Outlines
9th	27th Jun. 2014	RTC	<ul style="list-style-type: none"> The JICA expert explained the inception report to the C/Ps. The DoE presented the draft concept plan of the National 3R Promotion Framework (the Home Composting Subsidy Programme, the CSP financial assistance), and collected comments from council counterparts. Training on planning of landfill improvement was conducted using the example of the Sigatoka Town Council. A Proper tipping system was also explained by the JICA Expert. The MoH/RLAs for Ra area attended the meeting, and examined the cooperative relationship with the RLAs for implementation of the CSP.
10th	21st – 22nd Aug. 2014	SCC	<ul style="list-style-type: none"> Conducted during the absence of the JICA Experts. Site visit for the compost yard of the SCC was conducted. Non-targeted councils in the central division also attended.
11th	16th Oct. 2014	STC	<ul style="list-style-type: none"> The STC C/P who was in charge of landfill management, presented the rehabilitation plan of the Sigatoka landfill. After the presentation, participants visited the landfill under earthworks. The Nausori Town Council, one of the non-targeted councils, attended the meeting voluntarily.
12th	22nd Jan. 2015	NTC	<ul style="list-style-type: none"> The DoE presented the implementation schedule of the National 3R Promotion Framework. Project members confirmed the necessary works to be done for the 4th JCC. The Nausori Town Council attended the meeting voluntarily.
13th	2nd – 3rd Jul. 2015	LCC	<ul style="list-style-type: none"> All 13 councils and some of the MoH (RLAs) attended the meeting for the first time. Participants presented the progress of the National 3R Promotion Framework and other 3R activities. Good practices, issues and lessons learned were also identified and shared among participants.
14th	10th – 11th Dec. 2015	SCC	<ul style="list-style-type: none"> At the same time, the fifth JCC meeting was held. Six non-targeted councils presented the progress on 10th December while seven target councils and the DoE

			<p>presented their progress. The JOCV, who were assigned to councils, also attended the meeting.</p> <ul style="list-style-type: none"> The representative of the Fiji Correction Service presented the report of the compost project. Three recycling companies presented the outline of their recycling system.
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b. 【Outline 2】 Fiji 3R model is disseminated to the Region/Country through training program

b.1 Activity 2-1 Develop the training program on 3R to be used at the regional training/workshop

Since the project started in FY 2011, Fiji accepted various training groups from and dispatched trainers to other countries in the Pacific region. In order to identify what kinds of training can be conducted by Fiji counterparts, the JICA Experts compiled the results of the various training activities, including the number of trainees, C/P organization who conducted the training, fields of training, relevant training materials (agenda, presentation materials, training reports, etc.). A breakdown of the types of training programs conducted by each organization is as shown in Table 3.23.

Table 3-35: Training Programs Conducted by Each Council

Organization	Home composting	Market waste composting	Green waste recycling	CSP	Recyclables collection	Landfill management	SWM/3R general	Waste collection	OHS	Total
Lautoka City Council (LCC)	7	11	9	2	3	11	8	1	2	54
Nadi Town Council (NTC)	4			9	3		3			19
Sigatoka Town Council (STC)		3				2	1			6
Suva City Council (SCC)		1								1
Ba Town Council (BTC)							1			1
Department of Environment (DoE)							2			2
OISCA (NGO)		4								4
total	11	19	9	10	6	13	15	1	1	87

b.2 Activity 2-2. Conduct the training for regional training/workshop

From FY 2014 to FY 2015, the following regional trainings were conducted.

Table 3-36: Actual implementation results of regional trainings (FY 2014 – FY 2015)

	Type of training	Date	Trainee (region)	Trainer organizations (Fiji)	Fields
1	Study visit	May. 2014	MNRE of Samoa	LCC	Waste data management using the weighbridge system.
2	Study visit	Jul. 2014	BTC of Kiribati	LCC, NTC	3R in general, especially the CSP
3	Study visit	Aug. 2014	PNG	LCC, STC, SCC, OISCA	Market waste composting
4	Trainer dispatch	Sep. 2014	Solomon	NTC	CSP
5	Study visit	Nov. 2014	Palau	LCC, STC, SCC, OISCA	Market waste composing

6	Study visit	Jul. 2015	Solomon, Tonga, PNG	NTC	CSP
7	Trainer dispatch	Sep. 2015	Marshall	NTC	CSP
8	Trainer dispatch	Nov. 2015	Marshall	LCC	OHS/WARM

b.3 Activity 2-3 Evaluate the training / revise the training program with feedback

This activity was mainly implemented by project coordinators of the J-PRISM Project Office. The feedback of some training conducted by Fiji counterparts were presented by the Project Office during the 5th JCC meeting which was held in March 2016.

3.2.2 Activities in Kiribati

a. [Output 1] Household waste, especially green waste is recycled through waste separation and chipping

a.1 Activity 1-1 Development of a work plan for the baseline survey

Activity 1-1 was completed in the first year.

a.2 Activity 1-2 Implementation of baseline surveys

J-PRISM Kiribati has a plan to conduct an opinion survey three times; the first and second surveys were implemented in 2011 and 2013 respectively, while the third opinion survey was conducted from May 22, 2015 to June 3, 2015. The outline of the surveys is summarized below. The full report of the third survey is attached at the end of the report (Annex 7.2.4).

a.2.1 Outline of the Survey

(1) Purpose

The purposes of the three surveys are summarized as follows:

- To estimate the change in number of people who know compost/composting and make/use compost for vegetable growing, in order to evaluate the effect of the Project
- To know the changes in the level of awareness and understanding of Solid Waste Management in South Tarawa during the Project period
- To check the changes in people's behavior in the field of Solid Waste Management including the 3Rs

(2) Survey Method

The opinion survey, a type of a sample survey, was conducted based on a set of questionnaire sheets. The sample numbers of the three surveys are shown below.

Date of implementation		Betio Town Council (BTC)	Teinainano Urban Council (TUC)	Total
October 2011	2011	69	135	204
June 2013	2013	49	111	160
May 2015	2015	48	102	150

(3) Items of Questions

The questions can be divided into the following groups. Since J-PRISM shares the results of the baseline surveys with the NZAID project, respondents were asked about basic solid waste management issues such as the garbage collection services, as well as 3Rs, compost and gardening. This can be seen in the following list:

- Problems caused by improper waste management
- Waste generation and treatment of waste at home
- Gardening and compost
- Waste collection service and discharge method
- Recycling activities

In order to know the actual level of understanding, the questionnaire includes as many oral-answer questions as possible. The questionnaire is shown in Annex 7.2.4.

a.2.2 Result

The findings and conclusions of the survey are summarized below.

(1) Findings

- The share of respondents who recognized the problems caused by improper solid waste management in Kiribati increased in the past five years.
- About 20% of respondents answered that they know about composting, but based on the result of questions for oral answers, it can be said that some of them actually do not know much about composting.
- Among all the respondents, the proportion of the respondents using composts at the time of surveys in 2011 and 2015 are 11% and 17% respectively. Even though there could be a relatively large error, it can be said that in 2015 more than 5% of people in South Tarawa use composts for vegetable growing. (the second indicator of Output 1 is achieved.)
- The Kaoki Mange program, a container deposit system started under UNDP project in 2004, is more active in Betio. Almost 70% of the respondents participated in the program, because it is possible to sell recyclables at any time at a material recovery facility in Betio, while three places which accept recyclables in the TUC are open only once a week.
- In the TUC, two-thirds of the respondents answered that there was no regular council collection service, and more than a half of the respondents used only the green bag collection service a contracted out collection service, started in 2013 under NZAID project, using green plastic bags which are sold at shops throughout South Tarawa.
- There were still 10% of the respondents who did not use any collection services, even 2 years after the start of green bag collection service throughout the South Tarawa. Some of them continue to throw away their waste at the beach.
- 90% of the respondents used the green bag collection service, about a half of them use only green bag collection service and the rest use both council and green bag collection services, and most of the green bag collection users were satisfied with its service, but few respondents knew who provided the collection service.

(2) Conclusions

- The awareness of people regarding Solid Waste Management in South Tarawa increased in the past five years.
- It is important to educate more people on what compost is, in order to promote compost in Kiribati. Under the new school curriculum, compost and composting will be one of the new topics in Environmental Science for Years five and six in 2016, and

this could result in an increase in the number of people who make and use composts for their gardening in the near future.

- Both the council collection service and the green bag collection service are basically used as rubbish collection services. It can be said that the two collection services are redundant.
- Since the councils could not provide a satisfactory level of collection service for customers, combining the council and green bag collection services and contracting out the combined service by Ministry of Interior could be an option for South Tarawa in the future. (In this case, it is necessary to review the current collection fee and its fee collection system.)
- The Councils could provide a green waste collection service once a month or so at each collection area in their towns. It is also possible for the councils to continue to provide a collection service for large scale dischargers, such as offices, supermarket, shops.

a.3 Activity 1-3 Conducting trial of home composting using compost bins

In order to find appropriate conditions of compost reaction in Kiribati, a trial of home composting using compost bins was conducted at three places including Berio Town Council office, in consultation with Taiwan Technical Mission and Agriculture & Livestock Division in the first year of the project. The main compost materials in Kiribati are fallen leaves and branches, which are difficult to be decomposed. In addition, at atoll islands the soil is very poor and there are limited soil bacterium and fungi. The trial started in January 2012, and the result shows that it is possible to make compost using wood chips, by adding nutrients such as animal manures and retaining heat and moisture of compost with plastic sheets.

a.4 Activity 1-4 Making compost at the BTC from green waste

Since the first year of the project in January 2011, the Betio Town Council, BTC, continues to make compost from wood chips and chicken manure, using waste drums as containers, next to its nursery center, which was constructed under TTM project and the operation and management of the facilities were transferred to BTC when the project finished. The responsible person of its nursery centre is also responsible for compost production. In the first two years, he and Expert worked together every time a new compost heap is made, but since 2014 he makes compost by himself. In addition, after the creation of the independent account to fund organic waste recycling activities in March, 2015, the council buys chicken manures from the revenue of organic waste recycling activities. In 2015, the Council replaced old waste drums with plastic compost bins, which were provided by the NZAID program.

The responsible person has a sense of responsibility and won the trust from TTM. One of the reasons for the successful result of compost production at BTC is the decision of Ms. Tokataake to assign him 5 years ago. He retired 2 years ago and now is working as a temporary staff. It is critical for BTC to train a successor.

a.5 Activity 1-5 Conduct public education and environmental awareness program on the importance of waste minimization and waste separation

Public awareness raising activities, promoting waste separation and compost making, has been mainly implemented as a part of the Clean School Program, Activity 2-1.

a.6 Activity 1-6 Promotion of the use of wood chips and firewood

In May, 2012, a shredder was provided to the Betio Town Council from J-PRISM. Soon after a shredder shed was constructed at the Betio disposal site with the support from J-PRISM, the Council started its shredder operation. Through trials and errors, with the technical support from the Expert, the Betio Town Council established a shredder operation system, which consists of the following 4 steps, 1. collecting and transporting fallen trees to the disposal site, 2. storing fallen trees at a green waste storage place at the disposal site, shredding branches and leaves of fallen trees, and storing and selling wood chips, and continue the shredder operation once or twice a month until the end of the project.

Until 2013, the Betio Town Council provided wood chips for potential large scale users such as the Taiwan Technical Mission, TTM, and Mormon Churches, for free. Since 2014, the council started promoting the sales of chips and firewood, using promotions posters, prepared with the support from the Expert. After the BTC Town Clerk created an independent account to fund organic waste recycling activities in March 2015, the Council intensified its promotion activities, running a radio advertisement before an event at the Council with its own budget.

. In order to increase the security of stored chips and firewood and to make it easier for the Work Supervisor to manage workers, the BTC Town Clerk decided to move the organic waste recycling site from the Betio Landfill to the premises of the council office in April 2015. This made it easier for the Council to advertise the sale of wood chips and firewood for local people in Betio. As a result, the sale of wood chips and firewood has increased since March 2015.

If the stock of wood chips was too large and the BTC could arrange a truck, the Expert advised the Council to provide wood chips to the Taiwan Technical Mission, TTM, as compost materials for free, since the TTM needed a large amount of organic waste as compost materials for the newly constructed farm (TTM agreed to pay the fuel cost) The maintenance of vehicles and equipment, however, is one of the biggest problems for the Council and collection trucks are often broken down. In the end, the BTC could only bring 1.5 tons of chips to the TTM's farm once.

As the sales of chips and firewood increased, the method of estimating the amount of recycled organic waste was modified, based on the discussion with the C/P and Expert. The amount of organic waste recycled as chips and firewood is now calculated by the number of wood-chip bags and bundles of firewood sold respectively, using the average weight of bags and bundles, 20kg and 15kg respectively. The amount of recycled organic waste from March to December in 2015 is shown below.

Table 3-37: Sales Amount (weight) of Firewood and Chip in the 5th year
from April 2015 to October 2015

	FIREWOOD		CHIPS			Total Weight (kg)
	# of bags	weight kg	# of bags	weight kg	Donation kg	
March	7	105	10	200		322
April	50	750	80	1,600		2,480
May	0	0	18	360		378
June	105	1,575	1	20	1,500	3,201
July	95	1,425	1	20		1,541
August	7	105	2	40		154
September	3	45	3	60		111

October	0		12	240		252
November	0		59	1180		1,239
December	2	30	14	280		326
TOTAL	269	4,035	200	4,000	1,500	10,004

The average weight of chip bags and firewood bundle is 20 kg and 15 kg respectively.

The C/P (Mr. Toromon) expanded the vegetable garden next to the organic waste recycling site as a part of the Action Plan, which was made at the end of the JICA training program in Japan in July 2015. This vegetable garden can be used to demonstrate the effect of compost.

Most of those who buy chips bury them in the ground of their vegetable garden, in order to increase the harvest. Composed chips, however, cannot be used as soil conditioner. It is necessary to decompose chips before burying them, in order to use them as an effective soil conditioner.

In order to promote the proper use of chips and to increase the sales of chips, the BTC started a new activity in November 2015, hastening the decomposition process of chips and fallen leaves by covering the heaps of chips with plastic sheets, referring a similar activity in Samoa with the support from the Expert. Like leaf mould, decomposed chips can be used as soil conditioner in order to increase the harvest of vegetables.

The BTC has a plan to use decomposed chips as soil conditioner at its vegetable garden, in order to demonstrate the effect of decomposed chips and leaves on the harvest. If the Council could show the increase in the harvest, it would be an effective way initiating promotion of using leaf mould (from fallen leaves and wood chips) in the community in 2016.

a.7 Activity 1-7 Establishment of financial system for shredder operation at BTC

The Town Clerk of the BTC decided to create a separate (budget) account to fund organic waste recycling activities in March 2015. In order to increase revenue, the BTC started the rental of not only a chainsaw but also grass-cutters, which were donated by NZAID. In addition, Works Supervisor started to sell vegetables, which were harvested from the newly constructed garden as a part of his pilot project under JICA Training. The balance of the account from March is shown below. The organic waste recycling related activities at the BTC generated a surplus of over AUD 1,000 in the first 10 months.

Table 3-38: Balance of the Account (AUD)

		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Expenses	Fuel		30		12.3	2	30			20		94.3
	Chicken manure			20			20				20	60
	Others					8	11.3					19.3
	Total		30	20	12.3	10	61.3			20	20	173.6
Revenue	Firewood	14	50		105	95	7	3			2	276
	Chips	20	80	18	2	2	2	3	12	59	14	212
	Compost			5	5							10
	Vegetable							64	22	8	57	151
	Rent a chainsaw & grass cutter		40	70	50	40	190	30	80	30	20	550
	Total	34	170	93	162	137	139	100	114	97	93	1,199
	Balance											1025.4

The balance of the account gradually increases since the start of the independent account. In order to prevent the misuse of the money, Local government division, Ministry of Interior, need to conduct a regular audit of the independent account. Ms. Tokataake, who was transferred from the Betio Town Clerk to the Urban Management Officer, Local government division, agree to conduct a regular audit of the independent accounts of the councils at the final JCC meeting in February, 2015.

b. [Output 2] Community awareness on solid waste is improved through the Clean School Program

b.1 Activity 2-1 Promotion of 3R related activities at schools through the Clean School Program

b.1.1 CSP Activities in 2014

(1) CSP meeting

In September, 2012, the ECD organized Teachers' Workshop, inviting the C/P and JOCV from Nadi Town Council as facilitators, in cooperation with J-PRISM. After the workshop, six schools submitted action plans and ECD started CSP for the first time in 2013 with 6 schools.

In the first year of the CSP, two schools dropped out from the program, because the C/P of the ECD never visited schools for monitoring and did not provide any supports. Regardless of no support of the ECD C/P, some schools showed a good result. In particular, the winning school successfully promoted waste separation and achieved school beatification. At the end of the year, the C/P of the ECD organized the final judging, targeting four remaining schools.

A Clean School Meeting was organized in February 2014, at the CSP winning school of the previous year, the Aratokotoko Primary School, in order to increase the number of participating schools and to show good practices of the winner schools. One teacher each from 12 primary schools, all the primary schools except Aratokotoko in South Tarawa, was invited in order to promote the CSP and increase the number of participating schools (in total 15 participants join the meeting).

(2) Participating schools and monitoring system

After the meeting, four schools submitted action plans, and the C/P of the Environment Conservation Division, ECD, agreed to visit schools once every second month in order to check the activities at each of the schools and provide advice if necessary.

Table 3-39: CSP Participating Schools in 2014

	School	Location	Compost exercise
1	Temwanoku Primary School	BTC	Implemented
2	St. John Primary School	BTC	Not implemented
3	Abaunamoub Primary School	TUC	Not implemented
4	Tebanimaneka Primary School	TUC	Implemented

(3) Promotion of School Compost and Organizing Compost Exercise

The C/P of the ECD and the J-PRISM expert visited some of the participating schools in May in order to discuss their action plans and found that the schools were very interested in composting

but did not know how to implement compost making at their schools. The ECD and J-PRISM decided to organize a compost exercise at two schools, targeting teachers, during the next assignment period of J-PRISM expert, in September. Due to the constraint of the J-PRISM expert's schedule, compost exercises were organized at only two schools, shown in the table above.

Basic approach of School Composting

1) Promoting Waste Separation

At the compost exercises, the importance of waste minimization and 3R promotion was emphasized, while teaching the compost method. Teachers were requested to separate and store fallen leaves until the amount of leaves is sufficient to make compost. On the other hand, thanks to the Kaoki Mange Program, it is easy to sell recyclables, and teachers were encouraged to separate and store PET bottles and aluminium cans as a part of the fund raising activity. The process of waste separation and compost making, which J-PRISM promoted, is shown below.

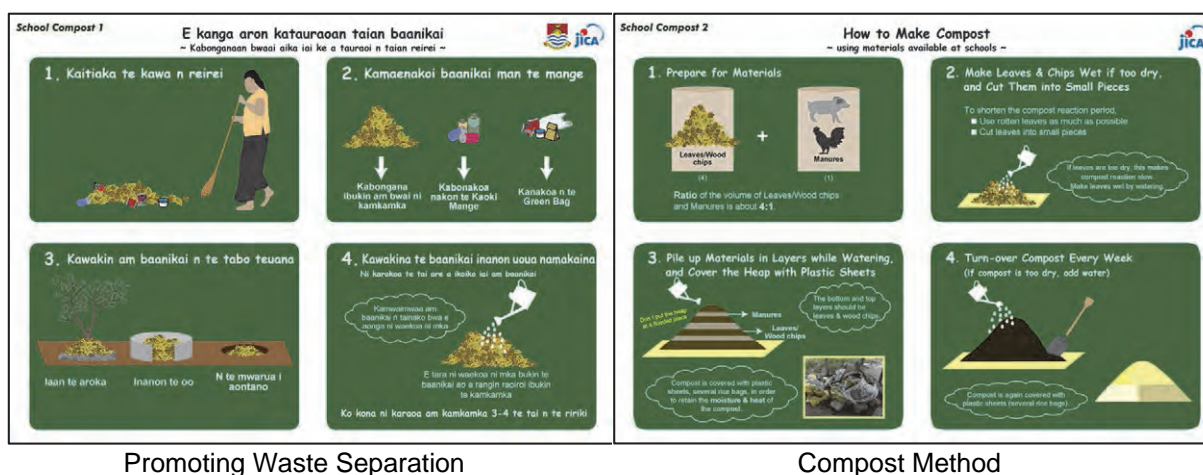


Figure 3-1: Process of Waste Separation and Compost Making, Summarized in Posters

Compost Exercise

The outline of the compost exercise organized at two schools is summarized below.

Activities	Temwanoku Primary School	Tebanimaneka Primary School
Preparation work <ul style="list-style-type: none"> To explain compost trial To promote waste separation To show necessary materials for making compost To explain how to prepare for necessary materials (mainly fallen leaves) 	Date: September 9 Participants: Head teachers 3R teachers (2)	Date: September 8 Participants: Head teachers 3R teachers (2) Other teachers (6)
Compost exercise <ul style="list-style-type: none"> To promote waste separation and storage of fallen leaves To give a brief Lecture of compost reaction Exercise: making compost 	Date: September 10 Participants: 3R teachers (2) Students	Date: September 11 Participants: 3R teachers (2) Other teachers (6)

Compost management <ul style="list-style-type: none"> • Exercise: turning over compost • To explain how to evaluate the compost conditions • To show how to solve possible problems 	Date: September 18 Participants: 3R teachers (2)	Date: September 19 Participants: 3R teachers (2)
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After the Exercise, 3R teachers were requested to turn over compost at least twice a month until the J-PRISM expert came back to Kiribati next January (in 2015), while the ECD C/P was requested to visit the schools a few times to encourage teachers to manage their compost properly. The ECD C/P, however, never visited the schools, and teachers of both schools forgot to turn over the compost. As a result, the compost became too dry to continue its reaction.

The result of compost trial implemented in the first year of the project shows that in general it is difficult for Kiribati people to manage compost for a certain period of time. The result of the compost exercise shows that it is also difficult even for teachers to take care of compost without support from someone outside the school.

(4) Result of CSP

The ECD C/P was supposed to visit schools for monitoring a few times, but she did not visit schools by herself. Four schools submitted Action Plans and started their activities, but two of them dropped out from the program due to the lack of support from the ECD. Two schools, Tebwanimwaneka Primary School and Temwanoku Primary School, completed the program and the ECD conducted the final judging on December 3 and 4, 2014. The result of the judging is summarized in Annex 7.2.1.a.

One of the main reasons why the ECD C/P could not regularly visit schools was problems of transportation. South Tarawa is a string of atolls and the road conditions were not good, as a result transportation was one of bottlenecks (issues holding back smooth implementation of project activities) to manage a project, and it was difficult for the C/P to arrange an office car to go to Betio from the ECD office in Bikenibeu.

In order to realize regular school monitoring, the J-PRISM expert proposed that the ECD cooperate with the BTC and the TUC and share its monitoring work with these councils, so that three organizations are in charge of schools near their offices. At the fourth JCC meeting in February, 2015, the CED, the BTC and the TUC agreed to work together to promote the Clean School Program and to share school monitoring works in 2015.

b.1.2 CSP Activities in 2015

(1) Establishment of Cooperative Framework

In order to promote the CSP at all the primary schools in South Tarawa, it is necessary to establish a cooperative framework among the ECD, the BTC and the TUC. In addition, the involvement of the Ministry of Education, MOE, is critical for the sustainability of the program.

The first joint meeting was organized on February 3, 2015, at the ECD's boardroom, with officers from the MOE invited, in order to establish a cooperative framework. The following decisions were made at the meeting.

- The ECD, the TUC and the BTC agreed to organize the CSP together and to divide South Tarawa into three areas and share responsibilities; the BTC, the TUC and the ECD are responsible for Betio, East of the TUC, and West of the TUC respectively.
- The ECD, the TUC and the BTC, as well as the MOE, agreed to organize a CSP meeting, inviting all the primary schools in South Tarawa, on February 11.
- The CED will explain the outline of the CSP and J-PRISM will provide compost training at the CSP meeting.
- The MOE will participate in the CSP meeting
- An organic officer under the UDP by the NZAID programme will provide compost training at each school, after the CSP meeting
- J-PRISM will organize a study trip to a disposal site in May or June as a trial in cooperation with the MOE.

In addition, a NZHC/NZAID officer presented the plan of the UDP such as distribution of awareness materials and gardening tools to all the schools in South Tarawa.

(2) CSP/Compost Workshop at Tebwanimwaneka Primary School

The CSP meeting was organized again at the Tebwanimwaneka Primary School, one of the two schools which completed the CSP in 2014, in order to promote the CSP and School Compost. The outline of the meeting is summarized below.

Date: February 11, 2015

Venue: Tebanimaneka Primary School

Participants: 20 (one teacher from each school, officers from ECD, MOE, TUC, BTC, J-PRISM)

Program:

Table 3-40: Program of CSP/Compost Workshop

Time	Item	Responsibility
3.00 pm	Opening Remarks	ECD C/P
3.10 pm	Clean School Program	ECD C/P
3.30 pm	Result of Activities	ECD/TUC C/P
3.40 pm	Introduction of Winner	ECD C/P
3.50 pm	Tea break	
4.00 pm	Compost Training – Lecture & Exercise	Expert
5.00 pm	Closing	

(3) Start of Clean School Program and Monitoring activities by three organizations

After the ECD and J-PRISM organized a CSP/Compost Workshop in February, 2015, six schools submitted action plans. In order to realize a sustainable monitoring system, the ECD shared the monitoring work with the BTC and the TUC, as shown below.

Name of participating schools	Organization in charge	Monitoring plan	Monitoring actual
<ul style="list-style-type: none"> • St. John Primary School • Temanoku Primary School 	Betio Town Council	<ul style="list-style-type: none"> • Visit schools twice a month • Keep records in a simplified monitoring sheet 	<ul style="list-style-type: none"> • Visited schools as planned • Kept records in a designated sheet
<ul style="list-style-type: none"> • Abaunamoub Primary School • Tebanimaneka Primary School 	Teinainano Urban Council	<ul style="list-style-type: none"> • Visit schools twice a month • Keep records in a simplified monitoring sheet 	<ul style="list-style-type: none"> • Visited school as planned until July • Did not keep records

<ul style="list-style-type: none"> • War Memorial School Bareaumai Primary School 	Environment and Conservation Division	<ul style="list-style-type: none"> • Visit schools at least twice before the final judging • Make a monitoring report after each visit 	<ul style="list-style-type: none"> • Visited schools once and submitted a report
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By sharing the monitoring work with the BTC and the TUC, the ECD implemented a school monitoring at least once for the first time since it started the CSP in 2013. As a result, Tebanimaneka Primary School could turn over compost regularly and got the finished compost, with support from the TUC C/P. The ECD needs to continue the cooperative relation with the BTC and the TUC in order to continue the CSP after J-PRISM finishes.

(4) Result of Clean School Program in 2015

The ECD and two councils could conduct a monitoring activity, targeting all the participating schools, for the first time, and as a result, six schools completed the CSP, even though two schools in Betio suspended outdoor activities including composting due to the reconstruction of buildings.

The C/P of the ECD and the TUC implemented the final judging on December 3, 2015, targeting four schools. Tebanimaneka primary school got the highest score. The result of the CSP in 2015 is summarized in Annex 7.2.1.b

b.2 Activity 2-2 Conducting of workshop to disseminate the lessons and experiences learnt

b.2.1 CSP/School Compost Workshop

The outline of the workshop is summarized in (1) of b.1.2.

b.2.2 Delivery Lecture and Site Visits to a Landfill and Recycling Sites

Considering the lack of the ECD's initiative, it seems difficult for the ECD to organize the CSP by itself, targeting all the primary schools in South Tarawa.

On the other hand, the MOE is revising the curriculum of the primary schools. According to the syllabus of subjects such as Environment Science and Living Healthy for Year 3 & 4, published in 2013, Year 4 students learn about waste and 3Rs at the third term. In addition, the syllabus of Environment Science for Year 5 & 6 contains compost and composting.

The MOE is also revising Teachers' Guide for these subjects, but many of teaching materials are not localized enough. Even though it is difficult for the ECD to organize the school program for the whole year targeting the schools throughout South Tarawa, it is still possible to support teachers by localizing teaching materials based on the results of J-PRISM and the NZAID project, providing a lecture on solid waste management at schools, and arranging field visits to landfills and recycling sites.

As a part of the summary of J-PRISM activities, an education program on solid waste management, consisting of a delivery lecture at school and site visit to a landfill and recycling sites, was developed and implemented in cooperation with the ECD, the MOE and two councils. The details of this activity are shown in b.2.2.

As mentioned before, an education program on solid waste management, consisting of a delivery lecture at school and site visit to a landfill and recycling sites, was developed based on the result of J-PRISM Kiribati and implemented in February 2015. The report of this activity is attached at the end of the book (Annex 7.2.5). The outline of the activity is shown below.

1) Targets and Destination of Field Trip

- Target school: Abaunamoub Primary School
- Target students: Year 4 Students (104)
- Site Visits: Nanikai Landfill, Betio Town Council, and Material Recovery Facilities

2) Program

Date: November 10, 2015

Venue: Abaunamoub Primary School

Schedule:

Time	Activities	Person in charge
8:15- 9:15	Lecture/Discussion at a classroom <ul style="list-style-type: none"> • Icebreaker: What's waste? • Lecture 1: Wastes in South Tarawa 	ECD officers/Council officers
9:15 – 9:30	Moving to a landfill	TUC will arrange Taiwan trucks
9:30 – 9:50	Site visit (Nanikai Landfill) Lecture 2: Disposal site Management and three landfills in Tarawa	ECD officer (TUC officer)
9:50 – 10:10	Moving to Betio	
10:10 – 10:30	Site visit (two recycling sites) <ul style="list-style-type: none"> • Betio Town Council (organic waste recycling) 	BTC officer
10:30 – 10:50	<ul style="list-style-type: none"> • MRF of Kaoki Mange (aluminum cans and PET bottles recycling) 	Owner of the recycling company responsible for Kaoki Mange
10:50 – 11:10	Moving back to school	
11:10 – 11:40	Q&A Refreshment	

This kind of activity, a combination of a delivery lecture and site visit, was implemented for the first time in Kiribati, and students actively participated in both the lecture and site visit, while enjoying the experience. In Kiribati, head teachers have the discretionary power to organize extra-curricular activities. Even though the ECD cannot continue the CSP, it is possible for the ECD to deliver a lecture and arrange site visits based on the request from head teachers.

Educational materials, prepared for this program, will be evaluated at the next editorial committee meeting under the MOE. If the editorial committee approves these materials, they will be able to be used in class as official educational materials.

3.2.3 Activities in Tonga

a. **【Output 1】 The existing solid waste disposal facility and operation in Vava'u is improved**

a.1 **Activity 1-1 Conduct site investigation at the existing dump site**

Site investigation was conducted during the first two years of the Project (FY2011 – FY2013).

a.2 Activity 1-2 Develop a plan, design and construction for the improvement of the site

The activity was carried out during the first two years of the Project (FY2011 – FY2012).

a.3 Activity 1-3 Undertake Environmental Impact Assessment

The environmental impact assessment process was undertaken and approved by the MLECCNR (current MEIDECC) EIA Unit in October 2012.

a.4 Activity 1-4. Water quality monitoring of Vava'u dumpsite and nearby environment

In order to assess the level of pollution caused by the Kalaka rehabilitated landfill and nearby environment, water quality monitoring was carried out on a quarterly basis since February 2013 in collaboration with the AUSAID-funded Integrated Water Resource Management (IWRM) and GEF-funded Integrated Water Coastal Management (IWCM) Project as shown in Table 3-41. The monitoring team collected water samples at six sites of Kalaka, including three (3) points from lagoon areas next to the Kalaka disposal site and each sample from three (3) leachate ponds. On-site tests were also conducted. A simple laboratory for water monitoring was newly established in the MoH Vava'u office (in the Nqu Prince Hospital, Vava'u) in October 2013, so all water samples collected in the field have been analysed in the laboratory since then.

Table 3-41: Implementation status of water quality monitoring at Kalaka

Implementation schedule					
times	FY2012 - FY2013	times	FY2014	times	FY2015
1	Feb. 2013	5	Apr. 2014	8	Apr. 2015
2	Jul. 2013	6	Jul. 2014		
3	Oct. 2013	7	Jan. 2015		
4	Jan. 2014				

The report for the 7th water monitoring has not been received yet, however, previous water monitoring reports concluded that nitrate exceeded the recommended level for marine environments at two sites tested at the leachate ponds; this is most likely due to decaying organic matter. The cause for high levels of contamination was assumed to be due to the excrement of domestic animals like cows, pigs and dogs as these animals often access the leachate ponds for drinking water.

To deal with the matter, the MoH C/P (Mr. Manase) developed a small bank at an entrance of the disposal site to reduce surface water flowing into the site in Jul. 2014. He also installed a simple fence around the 1st and 2nd leachate ponds to prevent animals from accessing the ponds in Jan. 2015. In addition, materials for filtration channel(s) have been also replaced once a year. It is noted that these works were done by the MoH C/P's initiative and own budget.

The IWCM Project was completed in Jul. 2015, and water quality monitoring has not been conducted since then. The C/P of the MoH and the MEIDECC were trained for sampling and testing by the WCM Project. However, it seems difficult to conduct water monitoring led by the C/P without any support from outside. The new project in the field of water resources management will be started from 2016, following the IWRM and the IWCM Projects, and it is expected that water quality monitoring at the Kalaka landfill would be included in their project activity.

a.5 Activity 1-5 Undertake rehabilitation of existing dumpsite

The earthworks were conducted during the first two years of the Project from FY 2011 to FY 2012. The rehabilitated landfill was launched in Feb. 2013, and MoH has started the operation and maintenance of the rehabilitated landfill since then.

a.6 Activity 1-6 Development of the operation manual for Vava'u rehabilitated disposal site

The first version of the operation manual was drafted in Feb. 2013 after the completion of the rehabilitation works. In view of the current status of operation and maintenance of the rehabilitated landfill, the manual was reviewed by the MoH CP (Mr. Manase) with the assistance of the JICA Expert. After a series of discussions, the second version of the operation manual was developed in Oct. 2014, and was endorsed by the MOH CEO (Dr. Siale) in January 2015.

a.7 Activity 1-7 Conduct training or site operation and maintenance

The training was conducted in FY 2012, and the On-the-Job Trainings (OJT) has been done on a continual basis since then.

a.8 Activity 1-8. Operate the rehabilitated disposal site

(1) Landfill operation and maintenance

According to the revised "Operation Manual for the Vava'u Rehabilitated Disposal Site" (related to the activity 1-6), the MoH C/P (Mr. Manase) carried out the landfill management, including management of disposed waste using a wheel loader leased by a private company or the Ministry of Infrastructure, and maintenance of facility such as grass cutting.

Table 3-42 shows the actual working records that compare three years from FY 2013 to FY 2015. The Project initially provided financial assistance to the landfill management in FY 2013 due to insufficient budget allocation of the MoH. However, the MoH has managed to cover expenses of landfill management since FY 2014.

An excavator was donated to the Tongan government through the Ministry of Infrastructure (MoI) in Jan. 2013, and it was supposed to be utilized to improve the waste management system, especially the management of landfill, in Vava'u. In return, the MoI has assisted the MoH for management of disposed waste using MOI's own heavy machine without charge under the supervision of the MoH C/P since Apr. 2014. In order to sustain a future cooperative relationship between the MoH and the MoI for landfill management, the J-PRISM Expert and the MoH C/P (Mr. Manase) had a meeting with the head officer of the MoI Vava'u at the end of April 2015. The following matters were clarified:

Table 3-42: Implementation status of Kalaka landfill and cost sharing

(2) Fence constructed by MoH (Sep. 2015)

The need for a fence along the landfill boundary with the aim of prevention of waste scattering was proposed by the JCC members during the 4th JCC meeting which was held in Feb. 2015. Hon. Minister of Health promised that the fence construction would be completed before the next JCC meeting, which was scheduled in Nov. 2015. The MoH allocated approx. TOP\$ 7,000 for this, and completed setting up the fence at the end of Sep. 2015.

(3) Increase of MoH's budget for landfill operation

The MoH's budget for solid waste management has been mostly allocated to the Kalaka landfill management. When the project started, MoH's budget for the Kalaka landfill management was TOP\$ 1,000 (approx. 60,000 yen) in FY 2011/2012, and has been gradually increased to TOP\$4,000 for FY 2014/2015 and to TOP\$8,000 for FY 2015/2016. The budget was finally realized and it is a great sign that the Tongan government has strong ownership of the landfill management.

(4) Implementation of soil covering (Nov. 2015)

Although the landfill has been normally maintained well due to the efforts of the MoH C/P, a caretaker who is stationed at the Kalaka landfill is still burning the disposed waste on site. The MoH C/P told the caretaker not to burn waste so many times. However, the caretaker keeps setting fires to avoid flies, offensive odors, and garbage scattering. Soil covering is the only solution for these negative impacts and is recommended to be carried out on a regular basis in the operation manual, but it has not been realized due to limited budget allocation. As the budget has

doubled in FY 2015, the MoH conducted soil covering in the middle of Nov. 2015. The MoH covered the fuel cost (TOP\$2,300) while the MoI provided soil and three heavy machines, namely backhoe, wheelie loader and a truck without charge. The practice of soil covering was very meaningful as the MoH C/P gained the first experience of soil covering together with the MoI while operators of the MoI acquired techniques necessary for waste compaction and soil covering. Even if the MoH C/P is absent from Vava'u, it is expected that the MoI will be able to take over and carry out necessary works for landfill management.

b. 【Activity 2】 Solid waste collection service in Vava'u is improved

b.1 Activity 2-1. Improve facility and equipment for waste collection such as provision of bins, dumpsters and collection vehicles

The Project provided the following materials for communities where community-based garbage collection is conducted since FY 2013.

Table 3-43: Materials provided to communities for implementation of garbage collection

	Item	Objective	Total number per community (approx. 100 households)	Unit cost	Total cost
1	T-shirt	To enhance motivation and team spirit of waste committee of the community	8	TOP\$28	TOP\$224
2	Gloves	To ensure safety of waste committee members who implement garbage collection works.	8	TOP\$8	TOP\$64
3	Materials for making cages	To store empty cans, that enables waste committee to save transportation costs by reducing the number of trips.	6	TOP\$130	TOP\$780
					TOP\$1,068 (approx. 640,000 yen)

Materials necessary for expansion of community-based garbage collection for FY 2015/2016 will be covered by the MEIDECC budget.

b.2 Activity 2-2. Develop a plan to improve domestic waste collection system

The first draft of the Plan was developed in Jun. 2013. After reviewing the outcomes of the pilot project of community-based garbage collection system that was conducted in FY 2013, the Plan was revised in Oct. 2014 through a series of discussions with the MEC C/P and the MoH CP. The Plan was amended again in Feb. 2015 and in Jul. 2015. The Plan was officially endorsed during the 5th JCC meeting held in Nov. 2015.

b.3 Activity 2-3. Conducting waste characterization study for collection service planning

The activity was carried out in FY 2011.

b.4 Activity 2-4. Conduct pilot project of solid waste management

The pilot project of community-based garbage collection was carried out in FY 2013.

b.5 Activity 2-5. Promote a community-based garbage collection system according to the garbage collection plan

(1) Target community, Implementation procedure

According to the expansion plan developed through Activity 2-2, MEIDECC C/P promoted a community-based garbage collection system to the following communities. Target communities are shown in Table 3-44..

Table 3-44: Target communities (FY 2014 – FY 2015)

Target community for FY 2014			
	Name of the District	Name of the community	No. of households
1	Neiafu	AloiTalau, Vaipua	250
2	Pangaimotu	Pangaimotu	125
3	Hahake	Ta'anea	121
4	Leimatu'a	Mataika	102
5	Hihifo	Tefisi	113
		Total No. of households	1,227
Target community for FY 2015			
	Name of the District	Name of the community	No. of households
1	Neiafu	Fungamisi	86
2		Makave	88
3	Pangaimotu	Nga'unoho(Talihau)	34
4	Hahake	Ha'alaufuli	82
5		Ta'anea	121
6	Leimatu'a	Feletoa	65
7	Hihifo	Taoa	89
		Total No. of households	565

As of Nov. 2015, 62 % of total households in Vava'u have access to garbage collection system. The C/Ps of the MEIDECC (Mrs. Winnie, Ms. Mele) advanced the following activities to encourage communities to implement garbage collection works.

Table 3-45: Implementation procedure of community-based garbage collection

	Activity	Contents	done by
1	Meeting with Town Officer	- To explain of the outline of the system - To request arrangement of community meeting	MEIDECC
2	Conduct community meeting	- To explain of the outline of the system (in detail) - To request establishment of Waste Committee and for development of garbage collection plan	MEIDECC/Community
3	Establishment of waste committee	- To select the committee members, and list them - The waste committee plays an important role for planning, awareness raising, implementation and monitoring.	Community
4	Development of garbage collection	- To determine collection day, collection time, frequency of collection, location of platforms and cages to be placed, implementation schedule, etc. - To fill in the common format of garbage collection plan, and submit the plan to the MEIDECC.	Waste Committee

5	Awareness activity to the whole community	- To inform the whole community of the information related to the garbage collection according to the plan.	Waste Committee
6	Implement garbage collection	- To implement garbage collection works according to the plan.	Waste Committee
7	Conduct monitoring	- To follow garbage collection trucks, monitor the implementation status of garbage collection and provide technical advice when necessary.	MEIDECC /MoH

(2) Radio awareness program

As a result of the social capacity assessment study and the workshop targeting waste committee, it was concluded that the awareness program should be continuously carried out as some households did not receive necessary information like collection days and times, recyclable items, etc. After a series of discussion with the MEIDECC C/P, the Project decided to conduct a radio awareness program. Although Vava'u has a local TV station, it is currently not in operation. Hence, radio is regarded as the most informative media tool for the people of Vava'u. The first radio program was conducted from the end of Oct. 2014 until the middle of Feb. 2015 for approx. four months, and the second program was conducted from Jul. 2015 until Dec. 2015 for six months. The outline of the program is as shown in Table 3-46.

Table 3-46: Outline of the radio program

	Implementation schedule	FY 2014 (Oct. 2014 - Feb. 2015 for approx. four months)	FY 2015 (Jul. 2015 - Dec. 2015 for six months)
	Objective	Frequency	
1	To announce the implementation schedule of garbage collection	Once a week for 15 minutes	Every two weeks for 15 minutes
2	To report the monitoring results, and share good practices and issues Panel discussion	Once a month for 30 minutes	
	Catchy tune to promote community-based garbage collection	Six times a week (Monday – Saturday) Three times a day for one minute	

b.6 Activity 2-6. Monitor an implementation of community-based garbage collection

Monitoring activity is conducted by the C/Ps of the MEIDECC and the MoH. The following eleven communities were targeted (Table 3.28).

- Pilot communities where the pilot project was conducted since Sep. 2013 (4 communities)
- Expansion communities (FY 2014 – FY 2015) (7 communities) (Table 3-42)

(1) Implementation procedure

Target communities are required to record the information, like collection days, required time, total number of trips, participation rate, revenue and expenditure, to fill in the monitoring report format and to submit it to the MEIDECC C/P after every collection work. Instead of submission

of the monitoring report, some communities visited the office of the MEIDECC and reported the results verbally. The C/Ps (MEIDECC, MoH) and Expert also inspected the actual status of implementation by following collection trucks on the collection days, and provided technical advice to the waste committee of the community when necessary.

The previously mentioned monitoring reports were useful for the Project to verify the implementation status, such as participation rate, the amount of waste collected, operation costs, etc. and its effectiveness in an objective manner. The JICA Expert and the MEIDECC C/P analysed the results based on the monitoring sheets submitted by each community. In Apr. 2015, the J-PRISM Expert developed a simple database which can be utilized by counterparts even after the Project ends. The training for the MEIDECC counterparts was also conducted at the end of Apr. 2015. The MEIDECC C/P is now filling in the database based on the monitoring sheets, and is updating the J-PRISM Expert on a regular basis.

(2) Monitoring results

Implementation status Table 3-47 shows the actual status of implementation from Jan. 2014 until Oct. 2015. All communities have kept conducting their waste collection practices while sometimes cancelling due to a breakdown of collection trucks, ceremonial occasions, bad weather, etc.

Table 3-47: Implementation status (Jan. 2014 – Oct. 2015)

Community	Kameli		Tu'anevivale	Leimatua	Longomapi	Community	Neiafu (Tatau)	Pangaimotu	Mataika	Tefisi
No. of households	236		86	218	121	No. of households	Approx. 250	125	102	113
Feb. 2014	1st Sat 8	2nd Sat 22	Sat 8 Sat 22	○	Sat 1	Oct. 2014		Mon 28		
Mar. 2014	Sat 15	Sat 29	X	○	Sat 1	Nov. 2014	Sat 13 Sat 29	Tue 4 Tue 11 Tue 25	Thu 20	Fri 28
Apr. 2014	Sat 12	Sat 26	Sat 5	○	Sat 5	Dec. 2014	Sat 20	Mon 9 Mon 16	Mon 22 Sat 27	
May. 2014	Sat 17	Sat 31	Sat 10	○	○	Jan. 2015	Wed 28	Wed 28	Tue 27	Thu 5
Jun. 2014	Sat 14	Sat 23	X	X	X					
Jul. 2014	Sat 12	Sat 26	X	○	X					
Aug. 2014	X	Fri 29	X	○	○ (1) ○ (2)					
Sep. 2014	X	Sat 27	Sat 27	X	*postponed due to rains					
Oct. 2014	X	X	Fri 11 Fri 25	Fri 3 Thu 31	Fri 3 Fri 26					
Nov. 2014	X	X	Fri 15 Fri 29	Thu 28	Fri 8 Fri 29					
Dec. 2014	X	X	Sat 13 Tue 27	Sat 5	Fri 20					
Jan. 2015	Fri 16	Thu 26	Sat 10	Sat 10	Sat 3 Fri 16					

Pilot communities (FY 2014)

Community	Kameli	Tu'anevivale	Leimatua	Longomapi
Jan. 2015	Fri 15 Thu 26	Sat 10	Sat 10	Sat 3 Fri 16
Feb. 2015	Fri 27	Mon 2	Fri 27	Sat 7 Sat 21
Mar. 2015	Sat 28	Sat 7	Fri 27	Sat 7 Sat 21
Apr. 2015	Sat 25	Sat 18	Fri 24	Sat 11 Fri 24
May. 2015	X	○	X	○
Jun. 2015	○	X	○	○
Jul. 2015	Sat 25	Sat 25	Fri 30	X Postponed
Aug. 2015	Sat 29	Sat 22	X Cancelled due to funeral	Sat 1 Sat 29
Sep. 2015	○	X	Thu 3	Sat 26
Oct. 2015	Sat 21*	Thu 8	Fri 2 Fri 30	○

Pilot communities (FY 2015)

Expansion communities (FY 2014)

Community	Neiafu (Tatau)	Pangaimotu	Mataika	Tefisi	Feletoa	Fugamisi
Jan. 2015	Wed 28	Wed 28	Tue 27	Thu 5		
Feb. 2015	Sat 28	Sat 28	Wed 11	X		Sat 21
Mar. 2015	Sat 28	Thu 12 Thu 26	Tue 31	X	Fri 6 Fri 20	Sat 14
Apr. 2015	Sat 25	Thu 9 Thu 23	Thu 23	X	Thu 2 Fri 17	Sat 11
May. 2015	Sat 30	○	Thu 4	X	Fri 1 Fri 29	Sat 16
Jun. 2015	Sat 27	Mon 15 Thu 25	Thu 4 Tue 30	X	Fri 12	○
Jul. 2015	Sat 25	Fri 17 Thu 30	Thu 23	Fri 17	Fri 24	Sat 25
Aug. 2015	Thu 28	Sat 29	Fri 28	Fri 28	○	Sat 29
Sep. 2015	Mon 28	Thu 3	○	Wed 9	○	Sat 19
Oct. 2015	○	Wed 11	Fri 2	○	Fri 16	○

Expansion communities (FY 2015)

※○: Implemented but the date was not recorded

① Participation rate

The participation rate means the number of households who discharged waste and/or metals to the total number of households in the community. The participation rates per month from Sep. 2013 to Oct. 2015 are as shown in Table 3-48. The average participation rates of some communities, namely Mataika and Feletoa, were more than 90 %. The reasons why the participation rates of these two communities are so high are; (1) strong leadership of Town Officers, and (2) strong commitment of the Waste Committee. In the Mataika community, the Town Officer himself engages in collection works on every collection day and encourages all households to discharge waste. Also, the Waste Committee voluntarily set up platforms for each household. The Town Officer of the Feletoa community, who has a close relationship with the Mataika Town Officer, was inspired to start implementation of garbage collection.

The average participation rate among 10 communities from Sep. 2013 to Oct. 2015 is as shown in Figure 3-2, and has increased year after year. Mataika and Feletoa communities lead the rise of participation rates for all target communities.

Table 3-48: Average participation rate of each community (%)

Name of community	AVERAGE (%)
Kameli	28.8
Leimatu'a	51.5
Tu'anevile	56.5
Longomapu	60.4
Talau	27.8
Pangaimotu	64.1
Mataika	96.6
Tefisi	69.3
Feletoa	87.1
Fungamisi	46.7
AVERAGE	58.9

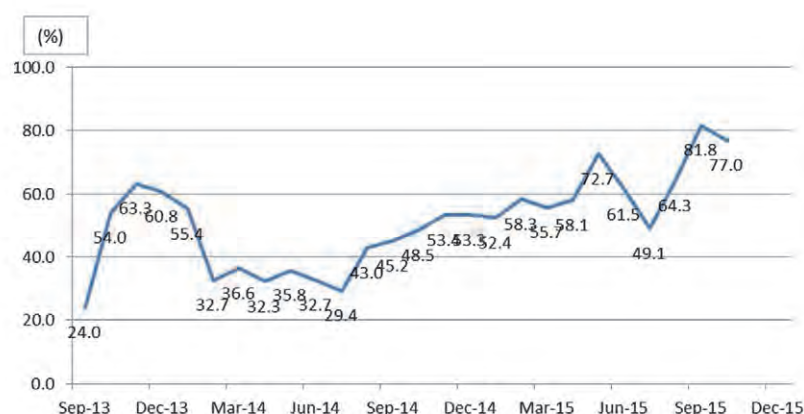


Figure 3-2: Average participation rate of all target communities (%)

② Total number of trips

The amount of waste/metals collected is represented by the total number of trips to the landfill and recycling company (GIO Recycling) each community made per month. Each community used one or two trucks owned by the community or individuals for collection work. The capacity of the aforementioned trucks is generally between 1.5 and 3.0 tons. Some communities collect waste and metals separately, and take the collected metals to a private company for recycling. The monitoring sheets which were submitted by communities show the total number of trips of general waste and those of metals respectively. In this report, in order to grasp the general trend, the total number of trips is a combined figure of both waste and metals.

Table 3-49 shows the total number of trips per community from Sep. 2013 until Oct 2015. The amount of waste collected is estimated at approximately 120 tons, and about 70 % of this was waste other than metals while 30% was recyclables taken to GIO Recycling as shown in Figure 3-3. The profits of selling recyclables were paid to the community directly.

Table 3-49 Total number of trips per
and estimated amount of waste
(cumulative amount)

Name of community	Total number of loads	Estimated amount of waste collected (ton)
Kameli	120	24
Leimatu'a	93	18.6
Tu'ane kivle	49.5	9.9
Longomapu	50	10
Talau	42	8.4
Pangaimotu	79	15.8
Mataika	66	13.2
Tefisi	21	4.2
Feletoa	20	4
Fungamisi	59	11.8
TOTAL	599.5	119.9

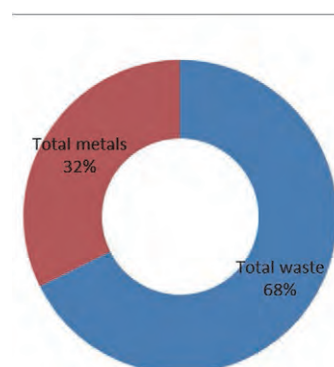


Figure 3-3 Weight ratio between
waste and metals(%)

③ Operation cost (average monthly data)

The operation cost means the monthly average expenses which the community spent for implementation of garbage collection, which includes hiring cost of truck(s), fuel costs, refreshments for workers and purchase of garbage bags. Most communities carry out garbage collection on a monthly basis. If implemented a few times a month, it shows the total operation cost community bore in a month.

Table 3-50 shows the monthly average operation cost of each community and the cost bore by each household from Sep. 2013 to Oct. 2015. The average operation cost was TOP\$ 150 (approx. 9,000 yen) and the cost bore by each household was TOP\$ 1.4 (approx. 78 yen).

Table 3-50 shows the financial breakdown of operation costs of four pilot communities, namely Kameli, Tu'ane kivle, Leimatu'a and Longomapu, from Sep. 2014 to Apr. 2015 for twenty (20) months. The necessary expenses like hiring trucks and fuel costs, accounts for sixty (60) % of the total operation cost while spending for refreshments takes up around thirty (30) % of operation costs. Refreshments highly motivate the VEVE Committee, so it will be difficult to eliminate it completely. It is noted that reducing the refreshment cost will definitely lead to a reduction in the total operation cost. Communities cover the operation cost with creative ingenuity such as fundraising (Kava party), additional waste collection charging on the water bill of each household, etc.

Table 3-50: Total operation cost per month and average cost born per household (TOP\$/month)

	Monthly total operation cost (TOP\$/month)	Collection fee per household (TOP\$/month)
Kameli	186	0.9
Leimatu'a	148	0.7
Tu'anevivale	79	0.9
Longomapu	111	0.9
Talau	71	0.3
Pangaimotu	268	2.1
Mataika	65	0.6
Tefisi	171	1.5
Feletoa	216	3.3
Fungamisi	187	2.2
AVERAGE	150	1.3

Table 3-51: Breakdown of operation cost (TOP\$) (Sep. 2013 – Apr. 2015)

Community	Operation cost per collection day (TOP\$)	Breakdown			Operation cost per ton	Cost born per household (month)
		Truck hiring and fuel costs	Cost for plastic bags	Refreshments		
Kameli	TOP\$ 122.68	TOP\$ 96.67 (79 %)	TOP\$ 46.67 (38 %)	TOP\$ 43.21 (35 %)	TOP\$ 98.94	TOP\$ 0.58
Tu'anevivale	TOP\$ 108.60	TOP\$ 55.83 (51 %)	TOP\$ 63.00 (58 %)	TOP\$ 18.67 (17 %)	TOP\$ 134.07	TOP\$ 0.50
Leimatu'a	TOP\$ 182.38	TOP\$ 103.33 (57 %)		TOP\$ 77.68 (43 %)	TOP\$ 350.73	TOP\$ 2.12
Longomapu	TOP\$ 172.20	TOP\$ 95.00 (55 %)		TOP\$ 51.66 (30 %)	TOP\$ 366.38	TOP\$ 1.42
		61 %		31 %		WAL TOP\$ 10

On the other hand, in order to improve cost efficiency of garbage collection work of a community, it is necessary to increase the amount of waste collected, and the participation rate of residents. For this reason, it is recommended to conduct continuous awareness activities and to enhance enforcement of regulations against open burning and illegal dumping.

(3) Workshop for community-based garbage collection

In order to share the monitoring results, the Project organized the workshops for community-based garbage collection targeting District/Town Officers and representatives of the Waste Committee members (four pilot communities, Expansion communities for FY 2014 and FY 2015) as shown in Table 3-50. As much as possible, the Project showed the quantitative data and information based on the monitoring reports and photos to make participants fully understand the actual status. An intensive discussion took place among participants since most of the participants were the parties who were implementing garbage collection on the ground. The workshop provided great opportunities for participants to share good examples and issues, and to learn from each other.

Table 3-52: Implementation status of workshop for community-based garbage collection

	Implementation status	Venue	No. of participants
1	Fri. 10 th Oct. 2014	Governor's Office	38 people
2	Thu. 30 th Jul. 2015	Governor's Office	49 people

c. **【Output 3】 Framework and system for long-term Solid Waste Management in Vava'u is established**

c.1 **Activity 3-1 Establish a committee involving key stakeholders to oversee the management of solid waste in Vava'u**

The Vava'u Solid Waste Management steering committee has been already developed in 2011 when the project started.

c.2 **Activity 3-2 Development of solid waste management plan for Vava'u**

The first version of solid waste management plan was developed in Dec. 2012.

c.3 Activity 3-3 Monitoring of implementation of solid waste management plan

The Project organized the 5th Solid Waste Management Workshop in Feb. 2015. The workshop targeting the Vava'u solid waste management steering committee is useful for the project to share the progress of project activities and issues with representatives of the Vava'u communities and relevant government organizations based in Vava'u. In the workshop, the C/P of MoH and the MEIDECC presented the status of the Kalaka landfill operation and the progress of community-based garbage collection and the Clean School Program (CSP). The revised expansion plan of community-based garbage collection was also presented to the Committee and gained their approval on the plan.

The Project was supposed to have the 6th Solid Waste Management Workshop in Nov. 2015 to gain approvals from the Committee; however, it was not realized as both C/Ps of the MEIDECC were busy with other projects at that time.

c.4 Activity 3-4 Evaluation and improvement of solid waste management plan

In Apr. 2015, JICA Expert updated the relevant data and information, and reviewed the Solid Waste Management (SWM) Plan which was drafted in Dec. 2012. In July 2015, the JICA Expert conducted a training session on the SWM Plan targeting C/Ps of the MEIDECC and the MoH for two days. Through the training, Project members clarified the problems pertinent to the proper SWM system in Vava'u and developed an implementation plan as a solution to the identified problems. The MEIDECC C/P (Ms. Winnie) submitted the finalized Plan to relevant Ministries including Ministers, CEOs, officers and JCC members for their comments. It is expected that the Plan will be presented to the Vava'u Solid Waste Management Committee, and should be officially endorsed before the end of the project.

d. Other activities

d.1 Collaboration with Technical Cooperation at the grass-roots level: MOTTAINAI Project of Chura and Vava'u

The Project actively cooperated with the MOTTAINAI Project for the following activities.

- 1) Selection of trainees for the training sessions in Okinawa, Japan.
- 2) Examination of contents of the activities during the stays of experts from Okinawa, Adjustment of schedule, Interview for communities, Support for implementation of the terminal evaluation study of the MOTTAINAI project
- 3) Workshop and JCC were jointly held (FY 2011, Oct. 2014)

d.2 Clean School Program (CSP)

The Clean School Program in Vava'u was initiated in 2012 by the JOCV in collaboration with the VEPA. Although the MEIDECC C/P was willing to implement the CSP, it had not been actively implemented due to lack of human resources for the MEIDECC. The C/P was not able to manage periodical monitoring as scheduled, and conducted a workshop for target schools only.

A new MEIDECC staff member, who used to work for an NGO (VEPA) and is experienced in

awareness activities in schools, was assigned from the end of Sep. 2014, and resumed the CSP the next month. She developed the implementation plan and visited target schools to grasp the current SWM/3R system at schools.

The CSP in Vava'u has very unique points including (1) CSP runs parallel with community-based waste collection systems. Communities establish VEVE (= waste in Tongan language) Committee and the Committee collects rubbish and KAPA (= metals in Tongan language) separately from house to house and takes them to the disposal site and the GIO for recycling. Most of the schools have difficulties handling their waste due to lack of transportation for waste. Therefore, the project encourages the VEVE Committee to collect waste generated from schools as well. In addition, the Project introduced the 3R (Reduce, Reuse and Recycling) concept to both communities and schools in order to reduce waste going to the disposal site by placing cages for segregation. These collaboration works between communities and schools provided a positive impact on Vava'u society for better waste management.

Another unique effort of the CSP in Vava'u is that (2) school field trips to the Kalaka landfill and recycling company were introduced to the target schools of the CSP. It is one of the effective ways to make kids understand where their waste goes and how it is disposed at the end by showing them the actual landfill in Vava'u. The target for site visits to the landfill is school kids in class 4. In order to make the site visits happen, the partnership among the MEIDECC, Ministry of Education (MoE) and their recycling company was established for an effective school environment programme. The school visit to the landfill is a kind of compulsory subject in Japan, but it was the first trial for Tonga. The first site visit was carried out in Apr. 2014, and school teachers and kids visited the Kalaka landfill and the GIO Recycling. The C/P of the MEIDECC and the MoH accompanied them and explained the current waste management system in Vava'u on site. The school visit to the Kalaka landfill provides positive pressure on the MoH to manage the Kalaka landfill in a good manner. The school site visits were organized for three (3) primary schools and one secondary school as of Dec. 2015.

d.3 J-PRISM Study Visit for Gizo Counterparts

From 31st Jan. 2015 to 6th Feb. 2015, two members of J-PRISM Solomon Islands, including one JOCV, visited project sites to learn the solid waste management system in Vava'u. The following activities were arranged by Vava'u C/Ps:

- Monitoring works of community-based garbage collection (at three communities)
- Presentation on solid waste management system; and a question and answer session
- Site observation of regular landfill operation and maintenance
- Participation in the 5th Vava'u Solid Waste Management Workshop as observers
- School visits as a part of the Clean School Program (CSP)
- Observation of radio awareness program
- Presentation of draft action plan, question and answer session

After the Study visit, the J-PRISM Vava'u team and the J-PRISM Gizo team are still communicating and have developed a common monitoring template for the CSP. The training was meaningful for both counterparts, Vava'u and Gizo.

4 Project Administration

4.1 Joint Coordinating Committee Meetings (JCC Meetings)

JCC Meetings were organized two times from Jun. 2014 until the end of December 2015. The dates of the meetings, places held and the topics discussed were as follows. The minutes of the meeting are attached to Annex 3.

Table 4-1: Summary of the JCC Meetings (Fiji)

No.	Date	Place	Topics	Note
1	03 Mar. 2015	Conference room, SCC	<ul style="list-style-type: none"> Review and matters arising from the 3rd JCC meeting Progress of the project activities (by councils and DoE) Work plan for FY 2015 Support for small councils where the progress of the project activity was not very good. Rapid development of new National Waste Management Strategy and National 3R Policy 	<ul style="list-style-type: none"> Mr. Fukase and Mr. Taguchi from JICA headquarters attended the JCC meeting.
2	11 Dec. 2015	Conference room, SCC	<ul style="list-style-type: none"> Review and matters arising from the 4th JCC meeting Progress of the project activities (by councils and DoE) Work plan for FY 2016 Summary report of National 3R Promotion Framework (Home Composting Subsidy Program and CSP Financial Assistance) Terminal evaluation results, progress of recommended activities Results of regional training (Output 2) 5-years History of J-PRISM Fiji, Success & Inhibiting Factors, Recommendations for Way Forward 	<ul style="list-style-type: none"> The 14th J-PRISM joint regular meeting was held at the same time Awarding ceremony was also conducted for: <ul style="list-style-type: none"> - "Best Counterpart team of the year to 2014/2015" - "Best Counterparts of the year to 2014/2015", and, - "3R Awards" (by the Ministry)

Table 4-2: Summary of the JCC meetings in Kiribati

No	Date	Place	Topics	Note
1	10 Feb 2015	ECD Boardroom	<ul style="list-style-type: none"> Improvement of the CSP management system, by establishing cooperation with two councils and sharing monitoring work Cooperation with NZAID in order to promote school compost (NZAID will provide compost bins along with gardening tools) Establishment of sustainable financial system of the BTC in order to continue organic waste recycling activities 	<ul style="list-style-type: none"> MOE participated in a JCC meeting for the first time as a JCC Member.
2	18 Nov 2015	ECD Boardroom	<ul style="list-style-type: none"> Result of terminal evaluation (identifying problems and examining possible solutions) Conducting a survey to evaluate the achievement of the overall goal in 2018 or 2019 by ECD under the 	

			<ul style="list-style-type: none"> second phase of NZAID project • Strengthening the roles of the MIA to support the BTC to continue its organic waste recycling activities • How to expand organic waste recycling activities to the TUC (roles and responsibilities of MIA and NZAID) • Promotion of waste education at school • Possible schemes after J-PRISM 	
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Table 4-3: Summary of the JCC Meetings (Tonga)

No	Date	Place	Topics	Note
1	11 Feb 2015	Governor's Office, Mana Islands Resort, Vava'u	<ul style="list-style-type: none"> • Site visit (Kalaka rehabilitated landfill, Community-based garbage Collection at Mataika community) • Progress of the project activities (MoH, MEIDECC) • Necessary budget for the Kalaka operation and maintenance, construction of fence for the surroundings of the Kalaka landfill • Sustainable funding mechanism to sustain the project activities. • Work plan for FY 2015 	<ul style="list-style-type: none"> • Minister for Health, Governor of Vava'u, four CEOs (MoH, MEIDECC, Waste Authority Ltd., Gio Recycling) attended the JCC. • Nine participants from main office of relevant Ministries attended (airfare was funded by the Project)
2	23 Nov 2015	Governor's Office, Tongan Beach Resort, Vava'u	<ul style="list-style-type: none"> • Site visit (Kalaka rehabilitated landfill, Community-based garbage Collection at Pangaimotu community) • Progress of the project activities (MoH, MEIDECC) • Securing funds for the Kalaka operation and maintenance • Financial plan of the Vava'u SWM Plan • Need to re-calculate the budget plan for the Kalaka operation and maintenance assuming the cooperative relationship between the MoH and the Mol. • Terminal evaluation results, progress of recommended activities • 5-years History of J-PRISM Tonga, Success & Inhibiting Factors, Recommendations for Way Forward (Need to review and amend current Waste Management Act, NATIONAL TASK FORCE for waste management" should be established) 	<ul style="list-style-type: none"> • Deputy Prime Minister (also worked as Minister for the MEIDECC), Minister for Health, four CEOs (MEIDECC, Mol, Waste Authority Ltd., Gio Recycling) attended the the JCC. • Nine participants from main office of relevant Ministries attended (airfare was funded by the Project)

4.2 Revision of PDM

From Jun. 2014 until the end of Dec. 2015, the PDM was not revised.

4.3 Workshops and Trainings

The outlines of the workshops and trainings conducted in each target country are as summarized in the table below.

Table 4-4: Summary of the Workshops and Trainings (Fiji)

No.	Organized Date	Topics and Objectives	Participants
1	06 Oct. 2014	<ul style="list-style-type: none"> To learn how to make composting at OISCA (including lectures) 	DOE, Suva City Council, Lami Town Council, Nasinu Town Council, UniFarm (NFU), Fiji Corrections Service No. of participants: 11
2	10 Apr. 2015	<ul style="list-style-type: none"> To explain the outline of the National 3R Promotion Framework (Home Composting Subsidy Program, the CSP financial assistance) Technical workshop for home composting and the CSP 	All 13 councils MoH (RLAs) (some) No. of participants: 35
3	18 Jun. 2015	<ul style="list-style-type: none"> To review each method and successful factors of market waste composting of the LCC, the SCC and the BTC. To learn planning procedure of market waste composting based on the actual examples and experiences 	SCC, DoE, Nausori Town Council, Nasinu Town Council (including JOCV), Lami Town Council, Labasa Town Council, MoH (RLAs) (Navua, Korovou) No. of participants: 13
4	02 Dec. 2015	<ul style="list-style-type: none"> To learn practical methods of landfill operation and maintenance based on the experience of the Lautoka Vunato landfill. 	Landfill operator of the Sigatoka Town Council No. of participants: 3

Table 4-5: Summary of the Workshops and Trainings (Kiribati)

No	Organized Date	Topics and Objectives	Participants
1	11 Feb. 2015	CSP/Compost Workshop <ul style="list-style-type: none"> To introduce the CSP and activities of the winning school To give a lecture and exercise of compost and composting 	Teachers from 13 primary schools, officers from the ECD, the MOE and councils No. of participants: 20

Table 4-6: Summary of the Workshops and Trainings (Tonga)

No	Organized Date	Topics and Objectives	Participants
1	10 Oct. 2014	<ul style="list-style-type: none"> Implementation reports (sharing good practices and lessons learnt) (by waste committees of Longomapu, Leimatu'a, Tu'anekevile and Kameli) Monitoring reports – by sharing good practices and lessons learnt Results of questionnaire survey, which was conducted for residents of the pilot communities. Closing Ceremony of the Great Vava'u Mottainai Movement Project 	Representatives of waste committees of four (4) pilot communities and five (5) expansion communities, District and Town Officers of target communities, NGO, the Governor's Office and relevant Ministry and Departments No. of participants: 38
2	04 Feb. 2015	<ul style="list-style-type: none"> The 5th Vava'u Solid Waste Management Steering Committee Workshop State of operational management of the Kalaka landfill Implementation status of community-based garbage collection system Obtained the approval for the Vava'u garbage collection plan 	Vava'u Solid Waste Management Steering Committee members, Representatives of waste committees Head teachers of target schools for the CSP No. of participants: 31

		<ul style="list-style-type: none"> Review of the Vava'u Solid Waste Management Plan 	
3	30 Jul. 2015	<ul style="list-style-type: none"> Monitoring reports of community-based garbage collection (implementation status, participation rate, the number of trips, operation costs, good practices and issues, etc.), discussion Outline of the CSP, Activity report of FY 2014 (incl. School visits to Kalaka/GIO), Action Plan for FY 2015 	Representatives of waste committees, District and Town Officers of target communities, Head teachers of target schools for the CSP, NGO, the Governor's Office and relevant Ministry and Departments No. of participants: 49

4.4 Capacity Assessment

4.4.1 Fiji

a. Implementation procedure

The objective of the capacity assessment is to ensure that the individual and organizational capacities of the Project counterparts are accurately assessed during the course of the Project. Two capacity assessments were conducted to ascertain the progress being made by counterparts in respect to the objectives of the Project as stated in the PDM and PO. The counterparts, particularly those at the DoE West responsible for monitoring of council 3R activities, played an integral role in planning, developing and conducting this capacity assessment. The questionnaire sheets were designed in a self-assessment format based on the PDM and the PO to avoid subjective assessments on the part of Project experts and to raise the awareness of the counterparts regarding which 3R related capacities need improvement (See Annex 4.1 for more details).

Table 4-7: Criteria for Capacity Assessment (Fiji)

Activity	Expected capacity to be obtained through project activity
Individual:	
Activity 1.1	To prepare a national framework to promote 3Rs
Activity 1.2	To conduct training for 3R action
Activity 1.3	To implement 3R activities based on action plans
Activity 1.4	To monitor the progress of 3R implementation
Activity 2.1	To develop training programs on 3Rs for other councils in Fiji/Pacific Island countries
Activity 2.2	To conduct training programs
Activity 2.3	To improve the training programs
Organizational:	
B.1	To have the capacity to implement the National 3R Strategy
B.2	To conduct training program(s) on 3R.

The initial capacity assessment was conducted in July 2014, and the second capacity assessment was done six months before the end of the Project in July 2015 to ascertain Project progress against these initial results. The capacity assessment (CA) was implemented as follows:

- ① Each counterpart was interviewed to obtain their self-evaluations of their individual capacity
- ② Group discussions were held at each C/P organization to obtain a consensus on their (self-assessed) organizational capacities.

- ③ The Project experts assessed the counterparts and organizations (only those for which each expert had collaborated closely in Project activities; the expert in charge of the capacity assessment evaluated all C/Ps), individually and organizationally
- ④ The results of the first three stages above were compiled in a draft report and sent to the counterparts to review before being interviewed again to gain feedback on strengths, challenges and solutions (ways forward)

Table 4-8: Implementation schedule and target C/Ps for the assessment (Fiji)

CA	Targeted C/P members
The 1 st CA (Jul. 2014)	DoE: Waste and Pollution Unit (3 members), West division (3 members)
	Councils: 13 members in total (LCC (5 members), NTC (2 members), BTC (1 member), STC (2 members), RTC (1 member), SCC (2 members))
The 2 nd CA (Jul. 2015)	DoE: Waste and Pollution Unit (3 members), West division (3 members)
	Councils: 15 members in total (LCC (5 members), NTC (2 members), BTC (3 members), STC (2 members), RTC (1 member), SCC (2 members))

b. Summary of the assessment results

The second Capacity Assessment Report is attached in Annex 4.1. The capacity assessment found a clear improvement in counterpart—both individual and organizational—capacities between the first and second assessments. In particular the Department of Environment showed a marked improvement, being highly appraised by council counterparts and experts alike for its proactive stance towards J-PRISM activities such as facilitating communication and collaboration amongst all the C/Ps by holding J-PRISM regular joint meetings. The expressed desire of all parties to continue these meetings is a major factor in ensuring the sustainability and continued impact of the Project. The DoE (WPU)'s launching of national subsidy programs for home composting bins and for the Clean School Program were also highly appraised.

Council assessment results showed two main themes:

- Larger councils (the SCC, the LCC and the NTC) with access to a wider range of physical, budgetary and human resources were assessed highly in both assessments. The impact of the previous Project, which is the 3R Project conducted by JICA, is also considered as contributing to their high capacity
 - The NTC was assessed highly in both assessments, particularly regarding its Clean School Program activities and strong support from management (Special Administrator)
 - The LCC was assessed highly for its strong overall solid waste management capacity and ability to conduct training on numerous SWM subjects. Recyclables collection remains an issue; while a recyclables collection center has been constructed in a popular children's park, a low level of resident awareness remains an issue.
 - The SCC was assessed highly both organizationally and individually for the first and second assessments. In particular, its ability to involve a wide range of stakeholders in its 3R and SWM activities was held in high regard.
- Organizational and individual capacities of smaller councils (the RTC, the BTC, the TTC,

and the STC) are easily influenced by changes in human resources such as when a C/P responsible for all Project activities leaves the council

- The RTC's capacity increased markedly, but only because activities were suspended as of the first assessment, while the new CEO had taken over Project duties as of the second assessment. There is concern over how much time the CEO will be able to commit to 3R/SWM activities with no other council staff deemed qualified (not least, by the CEO himself) to assist with such activities.
- The BTC—whose Project activities were also suspended as of the first assessment—had the highest increase in capacity of all of the councils. A new health inspector, Ms. Ronika Mishra, took over Project activities midway through 2014, restarting the CSP activities and market waste composting in October 2014. Such activities have so far been successfully implemented with the cooperation of several council departments (responsible for works, gardens and market).
- The TTC had also restarted suspended Project activities as of the second assessment with the new CEO showing proactive leadership in assigning two—albeit inexperienced—workers to conduct 3R related activities every Thursday. While these two workers have minimal if any experience in SWM or 3Rs (and have a low educational level meaning their chances of gaining in-depth SWM knowledge in the future may be slim), they show great enthusiasm towards Project activities.
- The STC was the only council whose individual and organizational capacities were assessed as not improving—and in some cases worsening—between the first and second capacity assessments. While the questionnaire replies of the sole counterpart (the CEO, while not a Project counterpart, was interviewed for the organizational capacity), Mr Ashnil Sharma, showed some lower self-evaluations, the experts did not assess his capacity as having decreased, and considered such replies as a possible reflection of his stated dissatisfaction over his working conditions and imminent departure from the STC. In fact, because the second capacity assessment was conducted shortly before Mr Sahrma's departure, the actual situation (after his departure) can be considered to be somewhat more dire than reported in the CA considering he was the sole counterpart (as well as the track record of the new CEO when he was the CEO (and J-PRISM C/P) of TTC).

4.4.2 Kiribati

a. Implementation Procedure

The Capacity Assessment, CA, is divided into two parts, individual capacity assessment and organizational capacity assessment. Since the start of J-PRISM in Kiribati, individual CA was conducted regularly in January 2012, May 2013, February 2014, September 2014 and May/August 2015, but the frequent change or long sick leave made it difficult to assess the capacity in the long term. The result of each assessment is summarized below. (Please refer to Annex 4.2 for details of the assessment)

a.1 Assessment methods

The method of capacity assessment is to interview the targeted counterparts, based on the assessment sheets. The target items of assessment are divided into several categories, as shown in

the table below. The C/Ps and the J-PRISM experts scored the knowledge and skills of the targeted C/P, from 1 to 5, in each category, based on the results of discussion. The criteria of scores are also shown below. The assessment sheet and the detailed scores of each category are shown in Annex 4.2.

Categories of Individual Capacity Assessment

A-1	Knowledge on laws, regulations, strategies and plans
A-2	Skills of laws, regulations, and so on obtained through experience
B-1	Technical knowledge on Solid Waste Management
B-2	Technical skills on Solid Waste Management
C-1	Collection of information and data
C-2	Information management capability
D	Communication skills

Criteria of Scores

1	No or quite a little knowledge or skill
2	Some knowledge or skill but needing great help to do occupational duties
3	Considerable knowledge or skill but needing some help to do occupational duties
4	Almost sufficient knowledge or skill to do occupational duties
5	Trainer Level

Categories of Organizational Capacity Assessment

A	Structure of Organization
B	Human resources
C	Property
D	Finance
E	Information/ Data Management
F	Communications

a.2 Implementation of Assessment

Due to the frequent changes of counterparts and medical leave, individual CA was often interrupted, and the CA for the following three C/Ps continue to be carried out. In this report, the result of the CA in 2014 and 2015 is summarized. The name of the target C/Ps and dates of the assessment were shown below.

Table 4-9: Targets of individual Capacity Assessment and Dates of Assessment

Organization	Name and Position	Job experiences	Date of assessment
Environment and Conservation Division	Ms. Robite Teaete Media Public Awareness officer	<ul style="list-style-type: none"> She took the post in 2012 Previous job was an assistant at Climate Change Unit, ECD, for three years after graduating university 	(May 2013) Sep 2014 Aug 2015
Betio Town Council	Mr. Kaiea Toromon Work Supervisor	<ul style="list-style-type: none"> Started to work as Waste Supervisor in March, 2015. Previous job: law enforcement officer at the BTC 	May 2015
Teinainano Urban Council	Mr. Harry Langley Work Supervisor	<ul style="list-style-type: none"> Has been a Waste Supervisor for around three years Previous job: Youth and Sports officer at TUC 	Feb 2014 May 2015

The target organizations for capacity assessment and the dates of the assessment are shown below.

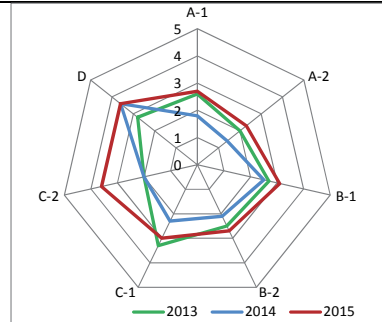
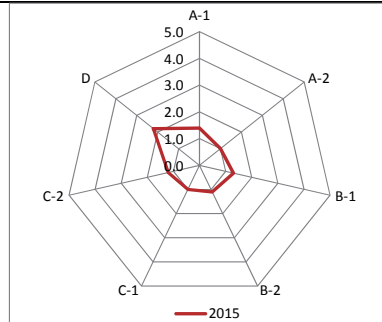
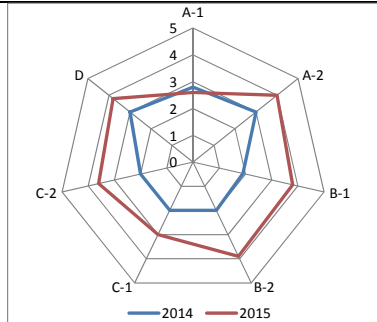
Table 4-10: Target Organizations and Dates of Assessment

Organization	Interviewees	Date of Assessment
Environment and Conservation Division	Mr. Taulehia Pulefou Ms. Robite Teaete (interviewed only in 2015)	January 2012 August 2015
Betio Town Council	Ms. Eliza Tokataake	January 2012 August 2015

b. Result of Assessment

b.1 Individual Capacity Assessment

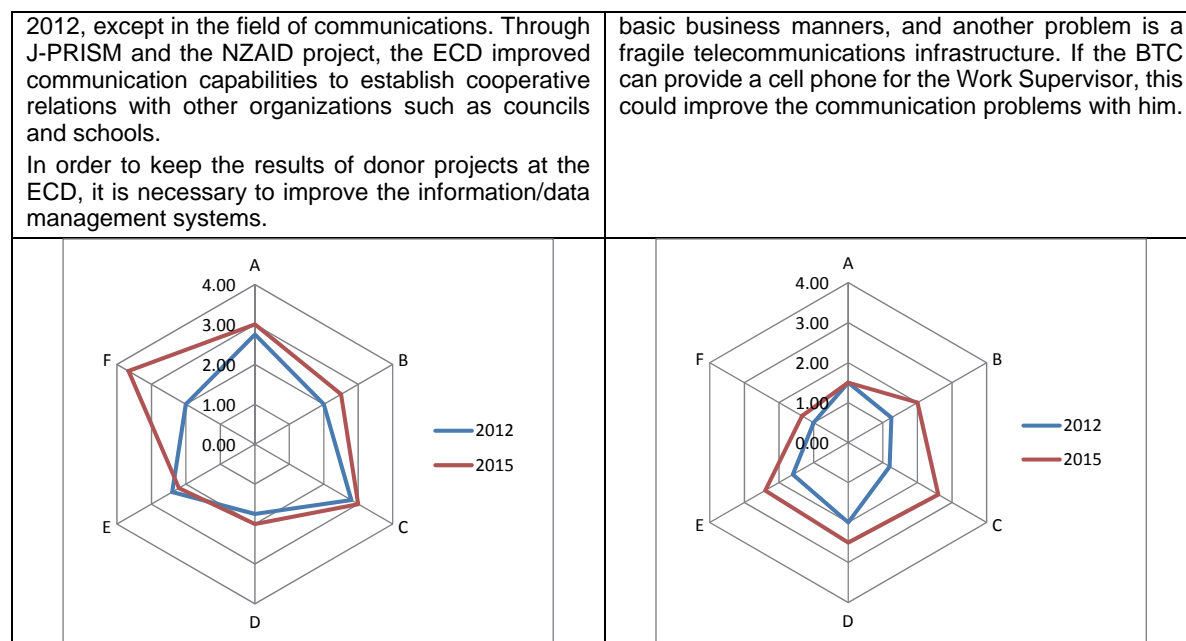
The result of Individual CA is summarized below.

Ms. Robite Teaete Awareness and PR officer Environment and Conservation Division	Kaiea Toromon Works Supervisor Betio Town Council	Harry Langley Works Supervisor Teinainao Urban Council
At the time of the first CA in 2013, she did not have enough knowledge and experiences in the field of solid waste management. The decrease in scores at the second CA could be the result from the progress her capacity. She could properly evaluate her capacity, as her knowledge on SWM was strengthened. Through the project, she strengthened knowledge and to some extent obtained skills, but If she had committed to the project more actively, she could have enhanced her skills more.	He just started as Works Supervisor in March, 2015, and his knowledge and skill in the field of SWM is limited. He is now in the process of learning, through daily works under J-PRISM/NZAID, along with training programs, including the JICA training in Japan. He also needs to strengthen basic skills such as computer skills and data management capacity (J-PRISM expert advised the Town Clerk to send him a computer training course.)	After transferring to Work Supervisor, he has strengthened his knowledge and skills through various training programs under J-PRISM and NZAID project.
		

b.2 Organizational Capacity Assessment

The result of organizational CA is summarized in the table below.

Environment and Conservation Division	Betio Town Council
Most of activities at the ECD depend on donor projects, which are usually implemented by project officers with a limited term and last only several years, and this has resulted in various problems such as the lack of continuity of experiences and knowledge at the ECD. In this sense, there has not been a major improvement since the start of J-PRISM, and the result of the Organizational CA in 2015 did not change much, compared to the result in	Since the start of J-PRISM, the working environment of officers and workers of the Works Department improved a lot including the arrangement of the Works Supervisor's office, provision of a set of computer(s), construction of a workshop for vehicle maintenance in the premises of the council office, and so on. The result also shows that communication is a weak point. One problem is the lack of rules and training of



4.4.3 Tonga

a. Implementation procedure

The capacity assessment was conducted in cooperation with the C/P organizations. The assessment items for social capacity assessment were examined and finalized with the C/P. The questionnaire sheets were designed by the JICA Expert based on the PDM and the PO (See Annex 4.3 for more detail).

Table 4-11: Criteria for Capacity Assessment (Tonga)

Criteria	
<u>Individual and organizational CA</u>	
1	Basic knowledge on solid waste management
2	Organizations
3	Outsourcing services to the private contractor
4	Collection and transportation
5A	Final disposal (rehabilitation)
5B	Operation and maintenance of final disposal site
6	Soft components (Education/Awareness)
<u>Social CA</u>	
1	Awareness level on waste issues in Vava'u
2	Community-based garbage collection (awareness level, status of participation, information tool, understanding and payment of collection fees, changes, impacts caused by garbage collection, suggestions/comments)
3	Kalaka landfill (awareness level, impression, issues, suggestions/comments)
4	Others (responsible body for waste management in Vava'u, awareness level of the project)

During the project implementation period (FY 2011 – FY 2015), capacity assessment was conducted three times. The initial capacity assessment was conducted in February 2013, and the second one was done in Sep. 2014 and the final one was done in July 2015 to ascertain Project progress against these initial results. The implementation procedure of the assessment is as follows.

(1) Self-assessment of individual/organizational capacity:

1. The C/P filled in the Capacity Inventory (CI), which was developed in the 1st Assessment
2. Based on the results of self-assessment of capacity done by the C/P, the JICA Expert had interviews with the C/Ps and made comments from an objective viewpoint

(2) Social capacity assessment

1. Questionnaire, which was used for the 1st CA, was reviewed by the MEIDECC C/P
2. The Project requested the Waste Committee to select two or three people to conduct a questionnaire survey. Training was carried out in the Project for the selected surveyors. This included explaining the implementation procedure and reporting and confirming each question.
3. Surveyors implemented the survey and submitted the report.

Table 4-12: Implementation schedule and target C/Ps for the assessment (Tonga)

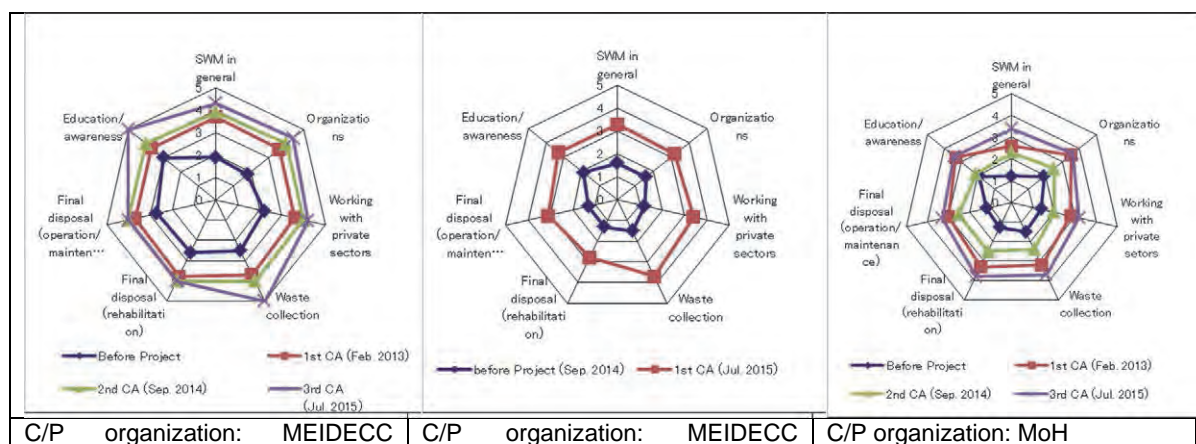
CA	Targeted C/P members
The 2 nd CA (Sep. 2014)	[Individual/Organizational CA] MEIDECC : 1 member (Ms.Winnie) MoH : 2 members (Mr. Manase, Mr. Leopino)
	[Social CA] Residents of four (4) pilot communities of community-based garbage collection (30 % of total number of households in each community)
The 3 rd CA (Jul. 2015)	[Individual/Organizational CA] MEIDECC : 2 members (Ms.Winnie, Ms. Mele) MoH : 1 member (Mr. Manase)
	[Social CA] Residents of four (4) pilot communities of community-based garbage collection (30 % of total number of households in each community)

b. Summary of the assessment results

(1) Results of individual and organizational CA

The results of individual and organizational CA was as shown in Table 4-13 (See Annex 4.3 for more detail).

Table 4-13: Results of individual and organizational CA (Tonga)



<p>Vava'u Office Name of C/P : Ms. Feauini Veikoso Laumanu Activity in charge : promotion of community-based waste collection, SWM Planning</p>	<p>Vava'u Office Name of C/P : Ms. Mele Finau Activity in charge: CSP, monitoring of community-based garbage collection</p>	<p>Name of C/P : Mr. Manase Malua Activity in charge: landfill rehabilitation and management, monitoring of community-based garbage collection</p>
<p>[Summary of the results] It is noted that the organizational capacity was recognized as the lowest score before the project; however, it has obviously increased. In Sep. 2014, the MEIDECC allocated one more environment officer who has some work experience in the environmental field. Also, one secretary has been assigned for administration work since May 2015. These additional staff members made Winnie's workloads less by sharing work. Another contribution factor for the increase of organizational capacity is that the MEIDECC could manage to secure TOP\$15,000 for implementation of project activities for FY2015/2016. This great news really motivates all the MEIDECC staff. The support of the MEIDECC main office is quite necessary for implementation of SWM in Vava'u.</p>		<p>[Summary of the results] He seems to still humbly regard himself as having room to improve in all, but finally ranked himself the best score in each component in the final 3rd CA, which is generally considered to be quite accurate. The Kalaka landfill management totally depends on Mr. Manase's commitment and the support of the MoH main office. The increase of the Kalaka budget to TOP\$8,000 is really encouraging news for us although that was only TOP\$1,000 when the project started.</p>

(2) Results of social CA

Overall, according to the results of the entire questionnaire, it is noted that there is a positive change in the perception of people's awareness on community-based garbage collection system as well as the impression of the Kalaka final disposal site. The most encouraging fact for the project is that people have recognized their home and community environment has become cleaner compared to the past. The results of the survey are an endorsement of the fact that a positive and fresh start has been made in the other expansion communities for their implementation of community-based garbage collection. On the other hand, some concerns are found and improvements are needed. More awareness on each system, namely Hiko VEVE (= "waste collection" in Tongan language), 3R (segregation, recycling) and the Kalaka operation system is also necessary. It is noted that the Waste Committee is taking a very important role for delivery of necessary information on their garbage collection. The trust relationship between the Waste Committee and residents should be well-established. Through the workshops organized by the Project, the results of the questionnaire survey should be shared with all project members including the Waste Committee members who conducted a questionnaire survey, and who work together to establish a better waste management system in Vava'u.

5 Conclusions and Recommendations

5.1 Efforts for better project implementation and lessons learned

a. Fiji

(1) PDCA (plan-do-check-act)-based 3R implementation strategy

The Plan of Operation (PO) in March 2014 was made by C/P of each council with the technical assistance of JICA Experts based on the recommendations of the mid-term review. The C/P of each council implemented various activities according to the PO, monitored the progress of activities and examined countermeasures with Experts. Since 2014, with the end of the Project in mind, in order to enable C/P to implement these procedures, JICA Expert established the monitoring and evaluation system using common monitoring formats, and implemented through joint regular meetings and monitoring inspection led by the DoE. These monitoring processes were very useful and effective to enhance communication and collaborative relationship between the DoE and councils by sharing the progress and issues. Also, through the PDCA-based implementation, the C/P gained the skills for monitoring and evaluation of the project activities for better implementation.

(2) Assignment of JICA Experts for capacity development of DoE

During the first three years of the project, as well as during the former JICA's technical cooperation project in Fiji, namely "Waste minimization and recycling promotion project in the Republic of the Fiji Islands" from October 2008 to March 2012, JICA Experts based their activities on councils and focused on the capacity development of council counterparts for 3R implementation. As a result, the counterparts have developed a sense of ownership of the Project and independent activities by the counterparts in the target councils have been observed. On the other hand, capacity development of the DoE, especially capacity for monitoring, had been an issue as most of monitoring activities were carried out by JICA Experts. Therefore, during the last two years of the project, with the end of the Project in mind, the JICA Experts based their activities on the offices of the DoE, namely the Western Division office located in Lautoka and the Waste and Pollution Control Unit of the DoE main office in Suva, and provide necessary guidance to the DoE counterparts. Through this, the DoE could manage to take over monitoring activities, which used to be carried out by JICA Experts before, and took strong initiative on the Project.

(3) Collaborative implementation of capacity assessment

In the case of Fiji, the number of C/P organizations and target counterparts are large, so the Project assigned one expert in charge of capacity assessment for objective implementation of the assessment. In addition to the self-assessment done by each counterpart, JICA Experts conducted the assessment of each counterpart and organization. By comparing the results between counterparts and JICA Experts, both of them jointly evaluated the validity of the results of self-assessment and identified issues through the interviews. The results of the capacity assessment were useful for JICA Experts to implement project activities according to the capacity each council owns. Counterparts were also able to identify the current status and issues their own organization have through the process of the capacity assessment.

(4) Efforts to get decision makers of counterpart organizations actively involved in

the Project.

During the last two years of the Project, the JICA Experts had a lot of time to work together with the DoE counterparts for the establishment of the National 3R Promotion Framework, etc. The approval of the Minister was required to proceed with most of the project activities the DoE implements, and it affected the smooth implementation of project activities and the assignment of J-PRISM Experts. On the other hand, the Minister used to be a Special Administrator for the LCC from 2011 until 2014, and is very familiar with the Project and the members of the JICA Expert team. During the latter half of the project, the JICA Expert often contacted the Minister, updated project activities and requested his support and cooperation. With his support and strong leadership, the project was implemented smoothly and effectively.

Also, at the level of municipality, the Project appointed the heads of municipal governments, namely Special Administrator(s) (S.A.) or CEO(s), as a Project Manager of the Project, and made them supervise project activities implemented by counterparts working on the ground. Also, Project Managers played an important role to make the whole council work forward for the Project, by making cooperation beyond borders among their departments.

(5) Collaboration with JOCVs assigned to the councils

In Fiji, six JOCVs in charge of environmental education, have been assigned to the councils, and played an important part in 3R implementation of each council organization. With JOCVs who were assigned to the target councils of the project, their interests and initiative were fully considered. JICA Experts requested JOCVs to sit with the C/Ps for the meeting, and shared the outlines and the implementation schedule of the project activities. Since the National 3R Promotion Framework commenced in FY 2015, target councils of the project have been expanded to all thirteen councils. For JOCVs who were assigned to the non-targeted councils, JICA Experts informed them of the updated information and provided technical advice on their activities when necessary.

b. Kiribati

(1) Establishment of Cooperation with Agricultural Sectors

In order to promote organic waste recycling systems, it is imperative to work with the agricultural sectors, which use organic waste as resources. Before the start of J-PRISM in Kiribati, the Taiwan Technical Mission, TTM, already started promoting vegetable growing at communities in South Tarawa. J-PRISM was able to obtain valuable information on the soil conditions in Kiribati, the difficulty of promoting community based compost production, the demand and supply of compost, suitable vegetable growing methods, and so on, from the Taiwanese experts, farmers and compost producers who worked with the TTM. J-PRISM was able to reflect these kinds of information into its project planning.

(2) Establishment of Sustainable Financial Systems at Betio Town Council

A shredder and chainsaw were provided for the Betio Town Council under J-PRISM. In order to continue to operate donated equipment, it is necessary for the BTC to arrange a budget to buy fuel and parts. Considering the BTC's financial conditions, in which the lack of the budget for vehicle maintenance resulted in frequent broken-down collection vehicles, the J-PRISM expert thought it was difficult for the BTC to arrange the necessary budget to operate a shredder and chainsaw.

The BTC and J-PRISM tried to establish a financial system, in which the sales of organic waste cover the cost of a shredder and chainsaw operation. The creation of an independent account for organic waste recycling activities made it possible for the BTC to increase the sustainability of the new financial system.

(3) Reflecting the result of Capacity Assessment (CA) into project management

Since the start of the project, Capacity Assessment was conducted regularly. The main purpose of the Individual CA is to understand the level of knowledge and skills of the C/Ps in the field of SWM, but questions about basic knowledge and skills necessary to manage the daily work, such as computer skills and data/information management were also asked.

The J-PRISM experts provided computer training for two of the C/Ps, based on the result of the CA. Unfortunately, they transferred to another ministry/department and the effects of the trainings could not be evaluated.

(4) Strengthening of collaboration with other donors (arrangement of activities)

The total length of J-PRISM expert's stay in Kiribati was very limited and it was almost impossible for the expert to achieve a good result independently. In Kiribati, NZAID as well as the TTM have already started their projects, and it is important for J-PRISM to make its activities complimentary to the NZAID and TTM projects, so that J-PRISM could achieve its goals with limited input.

c. Tonga

(1) Efforts to get decision makers of counterpart organizations actively involved in the Project.

During the last two years of the Project, with the end of the Project in mind, in order to ensure the sustainability of the project activities, it was crucial for the Project to obtain assurances from the main office of counterpart organizations on the sufficient amount of budget allocation and the assignment of necessary human resources. Therefore, the JICA Expert set up many opportunities to have a meeting with counterparts of main offices to update the progress of the project activities and request necessary arrangements. It is likely that the Tongan government has a top-down system in making decisions; the Project maintained good communication with the top management of each organization, like Ministers, CEOs and the Governor of Vava'u, through telephone, email and meetings.

(2) Assessment of the effectiveness of community-based garbage collection from both qualitative and quantitative perspectives

The community-based garbage collection, which has been introduced by the Project, is very unique and not many other examples exist in the world. In order to establish the system as one of the effective options of garbage collection, the Project recorded the successful and inhibiting factors and implementation procedures through the qualitative analysis based on monitoring reports submitted by communities and quantitative monitoring by following collection trucks and having interviews with Waste Committee members. These results were shared with counterpart's organizations and Waste Committee. As a result, they understood the importance of community-based garbage collection system and its outcomes, and that led to MEDECC's budget

allocation for promotion of the system in FY 2015/2016.

(3) Establishment of cooperative relationship with relevant organizations through JCC meetings

The government organization of outer islands, such as Vava'u Islands, have a very limited capacity and various restrictions, including limitations of human and financial resources. The main counterpart's organizations of the Project were the MEIDECC and the MoH. However, for successful implementation of the project, it was crucial to gain support and cooperation from other stakeholders, like the Ministry of Infrastructure and the Ministry of Internal Affairs through the Governor's Office. In Particular, in order to ensure the sustainability of the project activities, it was important for the decision makers based in the main offices of each Ministry to understand the current status and issues of waste management in outer islands and the outcomes of the project activities to tackle the identified issues. Therefore, the Project arranged the annual JCC meetings at the target area of the Project — Vava'u Islands — and invited the top management people of relevant Ministries from the main island. During the JCC meetings, the Project provided them opportunities to observe the actual implementation status through site visits, and to discuss each role and the responsibility of each organization for a better waste management system in the outer islands.

5.2 Status of achievement of each output

The status of achievement of each output in each country was confirmed as follows:

a. Fiji

Output 1: Output 1: National 3R strategy has been widely implemented in Fiji

The National 3R Strategy is regarded as (1) National SWM Strategy (2011 – 2014) and (2) National 3R Policy in the PDM of Fiji. As of January 2016, the DoE is preparing the current Strategy for the revision, and still hasn't obtained the final approval on the National 3R Policy from the Ministry.

On the other hand, under the fundamental principles of the draft National 3R Policy, the DoE established the National 3R Promotion Framework, namely the Home Composting Subsidy Program and the Clean School Programme financial assistance, in FY 2015. That led to the promotion of 3R activities to all thirteen councils. Also, the DoE, with the technical assistance of the JICA Experts, developed a monitoring and follow-up system and has secured sufficient financial resources to be implemented. The National 3R Promotion Framework and the monitoring and follow-up system will be continued after the project ends. Although the implementation systems of some councils in the western division have been concerned due to the limitation of human resources, from the information above, the expected output was almost achieved.

Output 2: 3R model of Fiji is disseminated nationally and in the Pacific Region

Many trainees from throughout not just the country, but also from the region, visited Fiji to learn the SWM and 3R system of target councils in Fiji. As of Dec. 2015, sixteen training sessions for 131 trainees were conducted during the 5-years project period. Seven organizations accepted training and the fields of the training sessions ranged over various themes such as SWM/3R in

general, the CSP and the OHS. The 3R model of Fiji was disseminated nationally and in the Pacific Region through the activities; the output was fully achieved.

b. Kiribati

Output 1: Household waste, especially green waste is recycled through waste separation and chipping (recycling of organic waste)

The recycling rate of green waste is 1%, not reaching the goal of 5%, and the result of Output 1 was evaluated as partly achieved.

Considering the capabilities of the Betio Town Council with a limited budget and personnel, however, it is possible to appreciate the BTC, which continued to operate a shredder a few times every month, to regularly make compost using chips, to sell chips and firewood for about two years.

The BTC has a plan to promote making leaf mold at communities in order to increase the harvest of vegetables, at vegetable garden at BTC, which is a part of Action Plan made at the end of a training program in Japan in June, 2015. This could increase the recycling rate of green waste.

Output 2: Community awareness on solid waste is improved through the Clean School Program.

By sharing the monitoring work with the Betio Town Council and the Teinainano Urban Council, the Environment and Conservation Division could implement a regular monitoring work for the first time and six schools, which submitted action plans, could continue the CSP activities. The result of Output 2 was evaluated as almost achieved.

c. Tonga

Output 1: The existing solid waste disposal facility and operation in Vava'u is improved

The Project completed the rehabilitation works of the existing final disposal site in Feb. 2013, and the MoH has implemented operation and maintenance of the rehabilitated landfill on a continuous basis according to the operation manual developed by the Project. The MoH hired a wheelie loader from the MoI without charge for pushing and compaction of waste every two months. For FY 2015/2016, the MoH's budget for the Kalaka landfill management has been increased eight-fold compared to the time when the project started in 2011. Also, the MoH constructed a fence around the boundary of the landfill with their own funds, and have taken strong initiative on landfill management through the Project. On the other hand, due to some restrictions such as the limitation of human resources at the Kalaka landfill, there remain some issues in the landfill operation such as landfill fires caused by caretaker(s). Thus, the expected output was almost achieved.

Output 2: Solid waste collection service in Vava'u is improved

The community-based garbage collection system introduced by the Project was disseminated to other communities according to the garbage collection. The coverage percentage of the system was 49 % at the time of terminal evaluation carried out in Aug. 2015, and the Project was not able to achieve the target, which was 80%. On the other hand, there were some communities where the

community-based garbage collection system was introduced without requiring assistance of the project, and the actual coverage ratio was more than 60 %. Thus, the output was almost achieved.

Output 3: Framework and system for long term solid waste management in Vava'u is established

In Vava'u, the steering committee of Vava'u solid waste management, consisting of the Governor of Vava'u, relevant ministries and departments, representatives of the community, recycling company and NGO was established at the time of starting of the project. The Project organized a workshop for the steering committee once a year, and shared the current status and issues of waste management in Vava'u and outcomes of the project. Through a series of discussions with them, the Vava'u solid waste management for Vava'u was also developed in Jul. 2015. The review and monitoring of the plan will be implemented after the project ends. The output was almost achieved.

5.3 Status of achievement of Project Purpose

The status of achievement of Project Purpose in each country was confirmed as follows:

a. Fiji

Indicator 1: 15 experts (Trainers) in the SPREP inventory

As of Sep. 2015, at the time of the terminal evaluation conducted, 21 experts were registered in the database of experts (PIDOC) which was certified by the J-PRISM Project Office. However, this indicator was not used as a direct measure of the Project Purpose as the persons listed are not considered officially certified trainers by SPREP. Thus, this indicator has almost been achieved.

Indicator 2: Regional training program organized by Fiji is established.

As mentioned previously, the sixteen regional training programs for 131 trainees were organized by seven organizations in Fiji in the nine fields during the five-year project term. Thus, this indicator has been fully achieved.

b. Kiribati

Indicator 1: Two experts (trainers) are listed in the SPREP inventory

Even though the Kiribati C/Ps increased individual capacities during the project period, due to the frequent changes of officers, as of September, 2015 (at the time of the terminal evaluation), no experts were registered in the SPREP database (PIDOC). As a result, the this indicator was evaluated as partly achieved..

Indicator 2: Volume of disposal waste at landfills is reduced by 5%

J-PRISM could not expand organic waste recycling activities at the Teinainano Urban Council, which is much larger than the BTC and has about four times the population of the BTC, and this resulted in the recycling rate of 0.2%, much smaller than the goal of 5%. Thus this indicator is partly achieved.

c. Tonga

Indicator 1: Six experts (trainers) are listed in the SPREP inventory

As of Sep. 2015, at the time the terminal evaluation was conducted, five experts were registered in

the SPREP database of experts (PIDOC) which was certified by the J-PRISM Project Office. However, this indicator was not used as a direct measure of the Project Purpose as the persons listed are not considered officially certified trainers by SPREP. Thus, this indicator has almost been achieved.

Indicator 2: More than 50 % of target communities operate and maintain the garbage collection system with minimum support from the government.

As of Sep. 2015, ten (10) communities have access to garbage collection systems run by the Waste committee members. Out of those, eight (8) communities can independently operate and maintain the garbage collection system without direct support from the MEIDECC/MOH through monitoring. This indicator has been fully achieved.

5.4 Recommendations toward its achievement of overall goal

a. Fiji

The overall goal of Fiji is “3R is practiced nation-wide”, and has already been achieved in 2015 through implementation of the National 3R Promotion Framework, which included such initiatives as the Home Composting Subsidy Program and the Clean School Program financial assistance. Since 2015, 3R has been practiced by all thirteen councils. In order to ensure the sustainability of these activities, the following matters should be considered.

(1) Rapid development and reliable implementation of National 3R Strategy

Some councils are still struggling with implementation of project activities due to institutional issues such as the limitation of human resources. The absence of specified staff means that the councils have insufficient ability to properly implement works related to SWM and 3R. Even if the national government, through the DoE, established a promotion system such as a subsidy program, it will be difficult to implement effectively unless councils have a proper implementation system. It is difficult for the Project to tackle institutional issues, so each organization must make its own efforts to establish an implementation system. 3R is still a new concept for Fiji. With the rapid development and reliable implementation of the National 3R Strategy through the National SWM Strategy and the National 3R Policy, it is expected that 3R should be mainstreamed into policies related to waste management, which will enable each organization to establish a proper implementation system.

(2) Review and redesign of National 3R promotion framework

The Home Composting Subsidy Program and the Clean School Program Financial Assistance were implemented on a pilot scale in FY 2015, and were the catalyst that leads all thirteen councils to start implementation of 3R activities. The Department of Environment is planning to continue implementation of the framework in FY 2016. Various good practices and lessons learned were identified through the J-PRISM joint meetings and monitoring activities done by the DoE and the J-PRISM expert team. For proceeding with effective implementation, the framework needs to be reviewed and verified in a comprehensive way.

(3) Establishment of 3R-centric waste management system

In Fiji, except for some councils, most of the councils do not have basic data and information on SWM and have not developed a SWM Plan. Therefore, it was difficult for the Project to

implement activities strategically by setting up the strategic numerical targets. A waste management system is a mix of complementary factors such as waste collection and final disposal, financial and organizational aspects, and others, and 3R should be integrated into the proper waste management system to ensure its sustainability. In order to make full use of the limited resources each counterpart organizations has, it is recommended that each council should develop a solid waste management plan to enable them to implement 3R strategically.

(4) Continuous implementation of monitoring and follow-up system developed by the Project

With the end of the Project in mind, JICA Experts developed a monitoring system using common templates. The aim of all of this is that the DoE and council counterparts will gain skills for monitoring and evaluation and based on these results be able to make decisions on the effectiveness and issues of activities, and then be able to examine and implement appropriate countermeasures from numerous options. The monitoring templates have been utilized for J-PRISM joint meetings and monitoring inspection by the DoE and the JICA Experts, and are a very useful tool to build a common understanding on the progress of 3R activities among the DoE, the councils and the JICA Expert team. However, some councils did not record monitoring results or submit the monitoring reports to the DoE, which prevents the DoE from monitoring the progress of the activities implemented by the councils. This in turn affects the DoE's ability to advise councils on better implementation of the National 3R promotion system. It is suggested that each council should, without exception, submit a monitoring report to the DoE within the specified time limit, and the DoE should provide necessary guidance according to the reports submitted by the councils.

(5) DoE involvement in landfill management

To date, the experts have given advice on appropriate landfill management to the counterparts when deemed necessary; however, there are concerns that it will become even more difficult to ensure proper landfill management without monitoring by an authorized third party. As a competent authority, it is recommended that the DoE should carry out regular monitoring of the landfill management of each council. The DoE is planning to conduct monitoring inspection on a quarterly basis, so it would be great that site visits to landfill(s) could be included in the target of inspections.

(6) Fiji's role in promotion of 3R model to the Pacific region.

Fiji's 3R model was initially developed by the former JICA's technical cooperation project, entitled "Waste Minimization and Recycling Promotion Project" started in Oct. 2008, and had been gradually disseminated nation-wide through the JICA Partnership Program implemented by Shibushi City, the 5-year-long J-PRISM Project, and the National 3R Promotion Framework, etc. Many trainees from throughout not just Fiji but also from the Pacific region, visited Fiji to learn the SWM and 3R system of target councils in Fiji, and there is still a big demand for that. Fiji's presence in the field of 3R and SWM has increased. It is expected that Fiji will continue to make efforts to drive better solid waste management system in the region.

b. Kiribati

(1) Strengthening ownership and capability of Environment and Conservation

Division (ECD)

Since the ECD is expected to take a leading roles in promoting waste minimization and 3Rs in Kiribati, it is critical to enhance the capabilities of the ECD, in order to achieve the project goal.

Most of the ECD's activities are donor project related activities, which are implemented by project officers with a limited term. This makes it difficult to keep the results of the donor projects and enhance the capability of officers of permanent positions. It is important for the ECD to do more to get officers of permanent positions more involved in donor project activities, while encouraging them to implement daily works such as inspection work and complaint management with a regular budget .in order to strengthen their capabilities to manage works, projects and organizations.

(2) Strengthening the roles of the Ministry of Interior (MIA)

In Kiribati, councils are responsible for SWM related works, such as garbage collection work and final disposal site management. Compared to councils in Fiji, the organizational capabilities are limited and the overall performance levels tend to depend on the capabilities of the Town Clerk. During the J-PRISM project, the changes of the Town Clerk almost jeopardized the project. It is important for the MIA to supervise the performance of the councils, so that councils could keep the level of works to a certain standard after the change of Town Clerk.

In addition, MIA's role to expand the organic waste recycling activity to other councils is critical. Before the end of the project, the TUC C/P could not implement organic waste recycling activities in full scale, due to the lack of support from Town Clerk, Mayer and Town Council. It is important for MIA to encourage decision making people at TUC to start organic waste recycling activities, referring the successful result of Betio Town Council. On the other hand, the BTC created an independent account for organic waste recycling activities. At present, they gradually increase the balance of the account, but in order to prevent the misuse of money, it is necessary for the MIA to conduct a regular audit. At the 5th JCC meeting, the representative of the MIA agreed to consider the regular audit.

It is also important for donor agencies to include the MIA as a key organization along with the ECD, when they consider municipal solid waste related projects.

(3) Amendment of Local Government Act

In Kiribati, the Local Government Act stipulates the roles and responsibilities of councils. The Act states clearly that waste collection and disposal site management are one of the councils' main works, but does not mention waste minimization and promotion of 3Rs. It is necessary for the MIA and councils to amend the Act, including minimizing waste and promoting 3Rs as responsibilities of the councils, so that the councils can continue organic waste recycling activities, regardless of who is Town Clerk.

(4) Promoting waste education at school in cooperation with the Ministry of Education, line with the curriculum

Ministry of Education in Kitibati is in the middle of the curriculum revision, and in the field of SWM related subjects, the new syllabus of subjects such as Environment Science along with Living Healthy for Year 3 & 4 and Year 5 & 6 were approved in 2013 and 2015 respectively.

Year 4 students just stated to learn waste and 3Rs in class in 2015.

Under the new curriculum, people in growing numbers can understand the importance of waste minimization and compost use by improving waste education including 3Rs and composting. In the beginning, it is difficult for teachers to teach new subjects and it is important for the ECD and the councils to support teachers by providing educational materials and lectures on solid waste management.

c. Tonga

(1) MoH main office should be actively involved in Kalaka landfill management

The MoH C/P carried out the landfill management according to the revised operation manual. In addition, under the strong initiative of the MoH, the MoH increased the budget for the Kalaka landfill management from TOP\$1,000 for FY 2011/2012 to TOP\$8,000 for FY 2015/2016, and allocated an additional budget (TOP\$7,000) to construct a fence along the landfill boundary with the aim of prevention of waste scattering. However, a caretaker who is being stationed at the Kalaka landfill is still burning the disposed waste on site, and this situation has discouraged communities from taking their waste to the landfill as disposed waste is always burned at the Kalaka landfill. Not leaving the MoH C/P alone to do the work on site, it is expected that the main office of the MoH will monitor the landfill management in Vava'u to ensure a proper landfill management system to make use of the improved technical and financial capacities that the MoH C/P has gained.

(2) Role and responsibility of the MEIDECC for waste management in outer islands should be clarified

The Vava'u Office of the MEIDECC did not have any budget allocated for waste management when the Project started in 2011. Having successful implementation of the community-based garbage collection system and CSP—implemented under the J-PRISM budget—it is noted that the main office of the MEIDECC has allocated TOP\$15,000 for implementation of these two activities for FY2015/2016 for the first time. The budget allocation by the MEIDECC will contribute to ensure sustainability of the project activities, and it is expected that the MEIDECC will continuously secure the necessary budget for waste management from the next fiscal year onwards. With this view, it is necessary to define the role and responsibility of the MEIDECC for waste management in the outer islands.

(3) A cooperative relationship with relevant organizations should be strengthened

The institutional capacity of the government organizations in the outer islands such as Vava'u Islands, has various constraints. The main counterparts of the Project are the MEIDECC and the MoH, however, a cooperative relationship with relevant organizations, namely the Ministry of Infrastructure, the Ministry of Internal Affairs, the Governor's Office, the Ministry of Education, the Ministry of Finance, NGO (VEPA), recycling company (GIO) and the Waste Authority Ltd, has been built for establishment of proper waste management in Vava'u through project activities. It is expected that the relevant organizations should understand the contents of the Solid Waste Management Plan for Vava'u and the cooperative framework should be strengthened through implementation of the Plan. And, it is recommended to review and amend the current regulations such as the Waste Management Act, with a view to a realistic implementation system for proper

waste management in the outer islands.

(4) The local experts trained by the Project can be utilized to improve a waste management system in other outer islands.

As the Project intensively worked on capacity development of counterparts through implementation of project activities, five local experts were developed. These personnel are well acquainted with each component of the Vava'u SWM model. These include the following: landfill rehabilitation and management, community-based garbage collection, CSP, 3R, steering committee of Solid Waste Management, the SWM Plan, cooperative relationship with relevant organizations, etc. This know-how, gained through their own experience, will be useful and applicable to other areas, particularly in the outer islands in Tonga. For the future waste management project, it is desirable for the Tongan government to make full use of these human resources.

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Project Photos

1. Fiji
2. Kiribati
3. Tonga

1 Project Design Matrix (PDM)

1.1 PDM of Fiji

[illegible]

1.2 PDM of Kiribati

Project Design Matrix (PDM) - Kiribati				Recommended at MTR as of Sep	
Project Title: Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM)				Project period: Feb. 2011 - F	
Target Group: C/Ps of Ministry of Environment, Lands and Agriculture Development (MELAD), Bello Town Council, Teinainano Urban Council				Date issued: 18#	
Implementing Agency: C/Ps of Ministry of Environment, Lands and Agriculture Development (MELAD), Bello Town Council, Teinainano Urban Council				Target Area: The Republic of Kiribati (South Tarawa)	
Narrative Summary		Objectively Verifiable Indicators	Means of Verifications	Important Assumptions	
Overall Goal					
Sustainable management of solid waste in the Pacific Region is enhanced.		1.80% of household engaged in the green waste recycling	Household survey in 2018 or 2019 (under NZAD project)		
Project Purpose					
Human and institutional capacity base for sustainable Solid Waste Management in the Pacific Region is strengthened through implementation of the Pacific Regional Solid Waste Management Strategy (2010-2015) (RS2010)		1-1 2 of experts (Trainers) in the field of 2 listed in the SPREP inventory 1-2 The amount of green waste for recycling (compost, firewood, etc.) is increased at Bello landfill site. (5% of recycling rate)	SPREP (Regional inventory of skilled people) Waste Audit (baseline survey)	1. Natural disaster would not drastically affect among PICs and SPREP. 2. Political changes of PICs would not drastic collaboration among PICs and SPREP.	
#	Priorities under RS2010	Outputs			
1	Sustainable Financing				
2-1	3RS/4Rs	Output 1: Household waste, especially green waste is recycled through waste separation and chipping.		1-1 Household Survey 1-2 Monitoring Report at the Bello Landfill	
2-2	Waste Disposal				
2-3	Waste Collection				
3	Legislation				
4	Awareness/Communication /Education	Output 2: Community awareness on solid waste is improved through Clean School Program.		2-1 Household Survey 2-2 Biannual Monitoring Report/Meeting	
5	Capacity Building				
6	Environmental Monitoring				
7	Policy/Planning, Performance				
8	Solid Waste Industry				
*	Monitoring system of RS2010				
Activities		Inputs			
Please see PO for details.		Japanese Side	Kiribati side		
		Dispatch of JICA experts	Assignment of National PD/PM and C/Ps	1. Counterpart personnel keep working in	
		Provision of equipment and materials	Local Costs Sharing	2. Disasters, such storms will not drastic of project activities.	
		Provision of Regional, sub-regional and in-country workshops / training	Provision of necessary land/facility, work space	3. Necessary budget to carry out activities: government.	
		Shredder for organic wastes			
		Local cost support			
				Pre-condition	
				Cooperation of community people of the 1 obtained.	

1.3 PDM of Tonga

ANNEX III-1: Project Design Matrix (PDM) - Tonga				PDM: Version 3			
Project Title: Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM)				Project period: 02, 2011 – 01, 2016 (5 years)			
Target Group : C/PS of Ministry of Environment and Climate Change, Ministry of Health		Final Beneficiaries: Citizens of Vava'u		Date issued: February 13, 2014			
Implementing Agency: Ministry of Environment and Climate Change, Ministry of Health		Target Area: Vava'u					
Narrative Summary		Objectively Verifiable Indicators		Means of Verifications		Important Assumptions	
Overall Goal							
Sustainable management of solid waste in the Pacific Region is enhanced.		1. Kalaka landfill has been properly operated. 2. All households in Vava'u have access to garbage collection system		Monitoring records MoH's working records (Kalaka)			
Project Purpose		1. 6 experts (Trainers) listed in the SPREP inventory 2. More than 50 % of target communities operate and maintain the garbage collection system with a minimum support from the government.		SPREP (Regional inventory of skilled people) Monitoring records		1. Natural disaster would not drastically affect the collaboration mechanism of SPREP. 2. Political changes of PIC countries would not drastically affect the collaboration mechanism of SPREP.	
#	Priorities under RS2010	Outputs					
1	Sustainable Financing						
2-1	3RS/4RS						
2-2	Waste Disposal	Output 1: The existing solid waste disposal facility and operation in Vava'u is improved		1-1 The existing dumpsite is rehabilitated 1-2 Rehabilitated landfill is operated in accordance with operation manuals		MoH's working record (Kalaka) Progress report	
2-3	Waste Collection	Output 2: Solid waste collection service in Vava'u is improved		2-1 Collection service is provided according to the schedule (den) 2-2 More than 80% of the households in Vava'u have access to garbage collection system		Monitoring records Progress report	
3	Legislation						
4	Awareness/Communication/Education						
5	Capacity Building						
6	Environmental Monitoring						
7	Policy Planning, Performance	Output 3: Framework and system for long-term Solid Waste Management in Vava'u is established		3-1 Solid waste management plan 3-2 Meeting or Workshop for Vava'u Solid Waste Management Committee is held annually at least.		Minutes of Meeting Progress Report	
8	Solid Waste Industry						
*	Monitoring system of RS2010						
Activities		Inputs					
Please see PO for details.		Japanese Side		Tonga side			
		Dispatch of JICA experts		Assignment of National PD/PM and CPs		1. Counterpart personnel keep working in the field of SWM. 2. Disasters, such as severe rain storm will not drastically affect the progress of project activities. 3. Necessary budget to carry out activities is allocated from the government.	
		Provision of equipment and materials		Local Costs Sharing			
		Provision of Regional, sub-regional and in-country workshops / training		Provision of necessary land/facility, work space			
		Local cost support				Pre-condition	
						Cooperation of community people of the target area is obtained.	

2 Plan of Operation (PO)

2.1 Fiji

2.1.1 PO by DOE (National Level)

a. PO modified in March, 2014

PO - FIJI

Term: 2011 ~ 2015 (5 years)

Indicator for Project Purpose:
1-1, 15 of experts (Trainers) in the SPREP inventory
1-2. Regional training program on 3R organized by Fiji is established

Version 2
Date issued: 3rd Mar., 2014

JCC/SC/eva	Outputs and Associated Activities	Indicators for Outputs	Person in-charge	Progress																																			
				2011					2012					2013					2014					2015															
JCC	Steering Committee ☆	1-1 100% of councils have been implementing the 3R promotion in the Western Division		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
OUTPUT 1:	National 3R strategy(1) has been widely implemented in Fiji.	1-2 Targeted components of 3R promotion for each council has been steadily progressed.																																					
1-1	Prepare the action plan for implementation of national 3R strategy		Planned																																				
1-2	Conduct training of 3R to be implemented		Actual																																				
1-3	Implementing action plans in selected councils through pilot projects		Planned																																				
1-4	Monitor the progress of 3R implementation in Fiji		Actual																																				
OUTPUT 2:	Fiji 3R model is disseminated to the Region/Country through training program.	2-1 Training materials 2-2 # of training conducted and # of participants																																					
2-1	Develop the training program on 3R to be used at the regional training/workshop		Planned																																				
2-2	Conduct the training for regional training/workshop (This includes in-country training conducted in other countries)	* This activity is also included in the Region-wide PO	Actual																																				
2-3	Evaluate the training / revise the training program with feedbacks		Planned																																				
1): National 3R strategy is regarded as National 3R policy and National SWM strategy (2011 -1014)																																							
2): 100% of councils means six (6) councils of the Western Division including LCC, NTC, STC, TTC, RTC																																							
3): Fiji National Solid Waste Management Strategy 2011-2014 will be replaced with 'National Waste Management Strategy' (a name that has been assumed temporarily)																																							

b. PO modified in March, 2015

PO - FIJI

Term: 2011 ~ 2015 (5years)

Indicator for Project Purpose:

1-1. 15 of experts (Trainers) in the SPREP inventory
1-2. Regional training program on 3R organized by Fiji is established

Version 3

Date issued: 3rd Mar., 2015

Outputs and Associated Activities		Indicators for Outputs	Person in-charge	Progress	2011					2012					2013					2014					2015															
JCC/SCV a	JCC Steering Committee Evaluation Studies				1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
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					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
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					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
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					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5							

Version 3
Date issued: 3rd Mar., 2015

c. PO modified in December, 2015

PO - FIJI		Term: 2011 ~ 2015 (5years)		Indicator for Project Purpose:		1-1, 15 of experts (Trainers) in the SPREP inventory 1-2. Regional training program on 3R organized by Fiji is established		Version 4 Date issued: 4th Dec., 2015	
		Outputs and Associated Activities		Indicators for Outputs		Person in-charge		Progress	
JCC/SC/eva		JCC Steering Committee ☆ Evaluation Studies ☆		2011		2012		2013	
				2014		2015			
OUTPUT 1:		National 3R strategy(1) has been widely implemented in Fiji.							
1-1	Prepare the action plan for implementation of national 3R strategy	1-1 100% of councils have been implementing the 3R promotion in the Western Division		Planned					
1-2	Conduct training of 3R to be implemented	1-2 Targeted components of 3R promotion for each council has been steadily progressed.		Actual					
1-3	Implementing action plans in selected councils through pilot projects			Planned					
1-4	Monitor the progress of 3R implementation in Fiji			Actual					
OUTPUT 2:		Fiji 3R model is disseminated to the Region/Country through training program.		2-1 Training manuals/materials 2-2 # of training conducted and # of participants					
2-1	Develop the training program on 3R to be used at the regional training/workshop			Planned					
2-2	Conduct the training for regional training /workshop (This includes in-country training conducted in other countries)	* This activity is also included in the Region-wide PO		Planned					
2-3	Evaluate the training / revise the training program with feedbacks			Actual					
				1). National 3R strategy is regarded as National 3R policy and National SWM strategy (2011 -1014) 2). 100% of councils means six(6) councils of the Western Division including LCC, NTC, STC, TTC, RTC 3). Fiji National Solid Waste Management Strategy 2011-2014 will be replaced with "National Waste Management Strategy" (a name that has been assumed temporarily)		① Study visit - Weightbridge system (Samoa x 3). ② Study visit - 3R program (Solomon x 2, Tonga x 2). ③ Study visit - Waste management (PNG x 1). ④ Study visit - Waste management (PNG x 1). ⑤ Country attachment program Waste Collection (Tuvalu x 2) (PNG x 1). ⑥ Trainer delivery - Clean School Program (2 trainers to Kiribati) ⑦ Regional Training (J-PRISM/Shibushi) (Region x 11, Fiji x 11)		① Trainer delivery - Clean School Program (2 trainers to Kiribati) ② Shibushi Training (DoE LCC, NTC, STC, RTC, Nauru, Nauru, SOC, USP, etc) ③ Site visit - 3R program (Palau x 1)	
						① Site visit - Weightbridge system (Samoa x 1) ② Site visit - 3R program (Kiribati x 1) ③ Site visit - Market waste composting (PNG x 1) ④ Site visit - 3R program (Palau x 1)		① Study Visit - CSP (Solomon x 2, Tonga x 1, PNG x 1) ② Trainer delivery - Clean School Program (NTC x 1 to RMI) ③ Trainer delivery - WAM/OHS (LCC x 1 to RMI)	

2.1.2 PO formulated by Seven Councils

a. PO modified in March, 2014

a.1 Suva City Council

PO - FUJI - Suva City Council										Indicator for Project Purpose:										Version 1 Date issued: 3rd Mar., 2014									
Term: 2011 ~ 2015 (5years)																													
</																													

a.2 Lautoka City Council

PO - FIJ - Lautoka City Council																											
Term: 2011 ~ 2015 (5years)																											
Indicator for Project Purpose:																											
Outputs and Associated Activities		Indicators for Outputs	Person in-charge	2011			2012			2013			2014			2015											
JCC/SC/ Eva	JCC ◇ Steering Committee ☆ Evaluation Studies ★			1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
OUTPUT 1:		Target 20% Recycling Rate - if not achieved, council will have the option to cease Recyclable Collection Component and focus on Recycling Activity of Waste pickers in Dump site																									
1-1	Strengthen Awareness Activities		Planned Actual																								
1-2	Involve other stakeholders		Planned Actual																								
1-3	Revisit communities		Planned Actual																								
1-4	Monitoring and evaluation		Planned Actual																								
OUTPUT 2:		350 bins to be promoted by end 2016																									
2-1	Strengthen Awareness Activities		Planned Actual																								
2-2	Purchase more Composters		Planned Actual																								
2-3	Strengthen Monitoring Process		Planned Actual																								
OUTPUT 3:		Collect 15tons of market vegetable waste and revenue of \$4,500																									
3-1	Strengthen Awareness Activities		Planned Actual																								
3-2	Strengthen Monitoring Process		Planned Actual																								
OUTPUT 4:		48 schools to implement 3R																									
4-1	Launching of program for schools		Planned Actual																								
4-2	Monitoring school progress		Planned Actual																								
4-3	Conduct Judging		Planned Actual																								
4-4	Award Ceremony		Planned Actual																								
OUTPUT 5:		100% coverage on site improvement in dump site																									
5-1	Improvement of Disposal Site		Planned Actual																								
5-2	Improvement of Access Road & Drainage		Planned Actual																								
5-3	Maintenance of Weighbridge & Heavy Machinery		Planned Actual																								
5-4	Promoting Recycling and OHS/WARM issues with Waste pickers		Planned Actual																								

[illegible]

a.4 Sigatoka Town Council

PO - FIJI - Sigatoka Town Council										Indicator for Project Purpose:										Version 1 Date issued: 3rd Mar., 2014									
Term: 2011 ~ 2015 (5years)																													
JCC/SC/ Eva		Outputs and Associated Activities		Indicators for Outputs		Person in-charge		2011			2012			2013			2014			2015									
Steering Committee ☆ Evaluation Studies ☆		JCC ◇						1 2 3 4 5 6 7 8 9 10 11 12			1 2 3 4 5 6 7 8 9 10 11 12			1 2 3 4 5 6 7 8 9 10 11 12			1 2 3 4 5 6 7 8 9 10 11 12			1 2 3 4 5 6 7 8 9 10 11 12									
OUTPUT 1:		The existing final disposal site is rehabilitated		1-1. Rehabilitation master plan was made by JICA expert		Planned																							
		Prepare a rehabilitation plan and detailed drawings		1-2 EMP was submitted to the Department of Environment		Actual																							
		Develop an Environmental Management Plan		1-3. All the rehabilitation works to be done based on the Master Plan		Planned																							
		Implement of rehabilitation works		1-4. Number of fire/smoke and complaint from the citizens		Actual																							
		Monitor daily operation nad maintenance of the rehabilitated site				Planned																							
OUTPUT 2:		The amount of hotel waste disposed at final disposal site is reduced		2-1. Survey summary report		Planned																							
		Conduct a questionnaire survey for target hotels to understand the current waste management system in hotels.		2-2. Hotel implementation plan made by JICA expert		Actual																							
		Develop a pilot project plan		2-3. Regular monitoring, hotel monthly meeting		Planned																							
		Implement a pilot project		2-4. Workshop report, number of participants, media exposure		Actual																							
		Review and share the results of pilot project with other hotels through the hotel workshop		2-5. Number of hotels who implement 3RS/ 4Rs		Planned																							
OUTPUT 3:		The amount of market waste is reduced in collaboration with OSCA		3-1. The system was established by STC and JICA volunteer		Planned																							
		Develop a market waste composting system		3-2. Number of bags received from OSCA and sales of compost manure		Actual																							
		Implement a market waste composting		3-3. Record book, Hiring of 3R Officer		Planned																							
		Review and improve the system				Actual																							
OUTPUT 4:		Clean School Program is implemented		4-1. The project plan had been written by JICA Volunteer		Planned																							
		Develop a implementation plan		4-2. Number of participants and questionnaire		Actual																							
		Conduct a teacher's workshop		4-3. School judging sheet		Planned																							
		Monitor school activities		4-4. Awarding ceremony and program report		Actual																							
		Conduct a judging and award ceremony				Planned																							

a.5 Ba Town Council

PO - FIJI - Ba Town Council		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
Term: 2011 ~ 2015 (5 years)		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
Outputs and Associated Activities		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
JCC Steering Committee Eva		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
Market Compost		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
OUTPUT 1:		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
1-1		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
1-2		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
1-3		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
1-4		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
1-5		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
1-6		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
OUTPUT 2:		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
2-1		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
2-2		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
2-3		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
2-4		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
2-5		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
OUTPUT 3:		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
3-1		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
3-2		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											
3-3		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar., 2014											

PO - FIJI - Tavua Town Council																
Term: 2011 ~ 2015 (5 years)																
Indicator for Project Purpose:																
<div> <div>plan</div> <div>actual</div> </div> <div>Date issued: 3rd Mar., 2014</div> <div>Version 1</div>																
Outputs and Associated Activities		2011			2012			2013			2014			2015		
JCC/SC/ Eva	JCC ◇ Steering Committee ☆ Evaluation Studies ★	Indicators for Outputs														
OUTPUT 1:		The number of participating schools is 4.														
1-1	support schools to prepare for action plan (have a meeting at each school, support schools to organize committees)	<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
1-2	conduct a regular monitoring	<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
1-3	conduct judging and organize a reward ceremony	<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
1-4	make a report	<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
OUTPUT 2:		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
2-1		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
2-2		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
2-3		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
2-4		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
2-5		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
OUTPUT 3:		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
3-1		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
3-2		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														
3-3		<div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div> <div> <div>plan</div> <div>actual</div> </div>														

a.7 Rakiraki Town Council

PO -Rakiraki

Term: 2011 ~ 2015 (5years)

Indicator for Project Purpose:

Outputs and Associated Activities		2011												2012												2013												2014												2015												Version 1 Date issued: 3rd Mar., 2014																							
JCC/SC/ Eva	JCC ◇ Steering Committee Evaluation Studies ★	Person in-charge												Indicators for Outputs												Person in-charge																																																											
OUTPUT 1:	Clean School Program	The number of participating schools is at least 7.																																																																																			
1-1	Attend/Conduct Teachers workshop	Planned Actual																																																																																			
1-2	Support schools to prepare for action plans	Planned Actual																																																																																			
1-3	Monitor school activity	Planned Actual																																																																																			
1-4	Conduct judging and ward ceremony	Planned Actual																																																																																			
OUTPUT 2:	Data collection work																																																																																				
2-1	collect data and information on SWM in Rakiraki	Planned Actual																																																																																			
2-2	conduct a disposal site survey	Planned Actual																																																																																			
2-3	conduct a hotel survey	Planned Actual																																																																																			
OUTPUT 3:																																																																																					
		Planned Actual																																																																																			
		Planned Actual																																																																																			
		Planned Actual																																																																																			
		Planned Actual																																																																																			

b.1 Suva City Council

[illegible]

b.2 Lautoka Town Council

PO - FIJI - Lautoka City Council										Version 1 Date issued: 3rd Mar., 2014											
Term: 2011 ~ 2015 (5years)										Indicator for Project Purpose:											
Outputs and Associated Activities										Person in-charge		2011									
JCC/SC/ Eva	Steering Committee	☆	☆	☆	☆	☆	☆	☆	☆			2012									
Separate Collection of Recyclables												2013									
1-1	Strengthen Awareness Activities											2014									
1-2	Involve other stakeholders											2015									
1-3	Revisit communities											2016									
1-4	Monitoring and evaluation											2017									
Home Composting												2018									
2-1	Strengthen Awareness Activities											2019									
2-2	Purchase more Composters											2020									
2-3	Strengthen Monitoring Process											2021									
Market Waste Composting												2022									
3-1	Strengthen Awareness Activities											2023									
3-2	Strengthen Monitoring Process											2024									
Clean School Program is implemented												2025									
4-1	Launching of program for schools											2026									
4-2	Monitoring school progress											2027									
4-3	Conduct Judging											2028									
4-4	Award Ceremony											2029									
Vunato Dump Site Rehabilitation												2030									
5-1	Improvement of Disposal Site											2031									
5-2	Improvement of Access Road & Drainage											2032									
5-3	Maintenance of Weighbridge & Heavy Machinery											2033									
5-4	Promoting Recycling and OHS/WARM issues with Waste pickers											2034									

[illegible]

b.4 Sigatoka Town Council

[illegible]

[illegible]

b.6 Tavua Town Council

PO - FIJI - Tavua Town Council									
Term: 2011 ~ 2015 (5years)		Indicator for Project Purpose:							
		Outputs and Associated Activities		Indicators for Outputs		Person in-charge		Date issued: 3rd Mar., 2014	
		JCC/SC/ Eva	JCC ◇ Steering Committee ☆ Evaluation Studies ☆			Robert Reuven Aria Khan		Version 1	
		Clean School Program		The number of participating schools is 4.					
OUTPUT 1:		support schools to prepare for action plan (have a meeting at each school, support schools to organize committees)							
1-1		conduct a regular monitoring				Planned			
						Actual			
1-2		conduct judging and organize a reward ceremony				Plan			
						Actual			
1-3						Plan			
						Actual			
1-4		make a report				Plan			
						Actual			
OUTPUT 2:									
2-1						Plan			
						Actual			
2-2						Plan			
						Actual			
2-3						Plan			
						Actual			
2-4						Plan			
						Actual			
2-5						Plan			
						Actual			
OUTPUT 3:									
3-1						Plan			
						Actual			
3-2						Plan			
						Actual			
3-3						Plan			
						Actual			

b.7 Rakiraki Town Council

PO - Rakiraki		Indicator for Project Purpose:												Version 1 Date issued: 3rd Mar. 2014	
Term: 2011 ~ 2015 (5years)															
		Indicator for Project Purpose:													
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		Indicator for Project Purpose:													

c.1 Suva City Council

[illegible]

c.2 Lautoka City Council

[illegible]

c.3 Nadi Town Council

PO - FIJI - Nadi Town Council										Indicator for Project Purpose:												Version 2 Date issued: 3rd Mar., 2015											
Term: 2011 ~ 2015 (5years)																																	
Outputs and Associated Activities		Indicators for Outputs		Person in-charge		2011			2012			2013			2014			2015															
JCC/SC/ Eva	JCC ◇ Steering Committee ☆ Evaluation Studies ★					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12				
OUTPUT 1: Separate Collection of Recyclables - CBD town Expansion		Participation Rate of target premises: 20 % by 2016				1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12				
1-1	Prepare educational materials			Planned																													
				Actual																													
1-2	Organise a meeting with stakeholders			Plan																													
				Actual																													
1-3	Advocacy awareness campaign			Plan																													
				Actual																													
1-4	Implementation			Plan																													
				Actual																													
1-5	Evaluate and examine the system			Plan																													
				Actual																													
OUTPUT 2: Separate Collection of Recyclables		Amount of Recyclables : 15 000kg annually																															
2-1	Create awareness to improve participation rate			Plan																													
				Actual																													
2-2	Recruit and Train Casual Workers to do Recyclable collection			Plan																													
				Actual																													
2-3	Develop and Distribute Recyclables Calendars			Plan																													
				Actual																													
2-4	Implementation and Monitor			Plan																													
				Actual																													
2-5	Maintenance and Repairs of MPT (Stereo Amplifier)			Plan																													
				Actual																													
OUTPUT 3: Home Composting		Compost bins to be sold : 330 bins by end of project 60 % of them use bins properly		ec																													
3-1	Purchase of Compost Bins			Plan																													
				Actual																													
3-2	Continue promotion of Subsidy Programmes			Plan																													
				Actual																													
3-3	Monitor of Home Compostors and create awareness on home composting to improve participation			Plan																													
				Actual																													
OUTPUT 4: Clean School Program		20 Schools to participate by 2016																															
4-1	Action Plan - Submission from Schools			Plan																													
				Actual																													
4-2	First and Second Monitoring			Plan																													
				Actual																													
4-3	Final Judging			Plan																													
				Actual																													
4-4	Awarding Ceremony			Plan																													
				Actual																													
OUTPUT 5: Ecobag Promotion		Eco bags to be sold by 2016 - 3000 bags.																															
5-1	Printing of Labels			Plan																													
				Actual																													
5-2	Collection of Materials from Garment and Tailors			Plan																													
				Actual																													
5-3	Production of Ecobags			Plan																													
				Actual																													
5-4	Promotion and Selling of Ecobags			Plan																													
				Actual																													

c.4 Sigatoka Town Council

PO - FIJI - Sigatoka Town Council									
Term: 2011 ~ 2015 (5 years)									
Indicator for Project Purpose:									
Outputs and Associated Activities		Person in-charge		2011		2012		2013	
JCC/SC/ Eva	Indicator for Outputs	JCC	SC	1	2	3	4	5	6
Version 2 Date issued: 3rd Mar., 2015									
Steering Committee ☆									
Evaluation Studies ☆									
The existing final disposal site is rehabilitated									
OUTPUT 1:	Number of fire/smoke and complaint from the citizens is decreased								
1-1	Prepare a rehabilitation plan and detailed drawings	Planned							
1-2	Develop an Environmental Management Plan	Actual							
1-3	Implement of rehabilitation works	Planned							
1-4	Monitor daily operation and maintenance of the rehabilitated site	Actual							
The amount of hotel waste disposed at final disposal site is reduced									
OUTPUT 2:	3R is implemented in more than 3 hotels								
2-1	Conduct a questionnaire survey for target hotels to understand the current waste management system in hotels.	Planned							
2-2	Develop a pilot project plan	Actual							
2-3	Implement a pilot project	Planned							
2-4	Review and share the results of pilot project with other hotels through the hotel workshop	Actual							
2-5	Promote hotel waste reduction program	Planned							
The amount of market waste is reduced in collaboration with OSCA									
OUTPUT 3:	20 % of market waste is reduced through composting and other 3R activities								
3-1	Develop a market waste composting system	Planned							
3-2	Implement a market waste composting	Actual							
3-3	Review and improve the system	Planned							
Clean School Program is implemented									
OUTPUT 4:	3R activities are implemented by 10 schools								
4-1	Develop a implementation plan	Planned							
4-2	Conduct a teacher's workshop	Actual							
4-3	Monitor school activities	Planned							
4-4	Conduct a judging and award ceremony	Actual							
Home Composting									
OUTPUT 5:	Sale of home compost bin to at least 5 ratepayers and 25% successful composting on first trial								
5-1	Develop Home Composting Implementation Plan	Plan							
5-2	Conduct awareness on Home Composting	Actual							
5-3	Monitor Compost	Plan							
5-4	Review and improve the system	Actual							

c.5 Ba Town Council

PO - FIJI - Ba Town Council			Indicator for Project Purpose:												Version 2 Date issued: 3rd Mar., 2015			
erm: 2011 ~ 2015 (5years)																		
Outputs and Associated Activities			Indicators for Outputs		Person in-charge		2011		2012		2013		2014		2015			
JCC/SC/ Eva	JCC	Steering Committee Evaluation Studies	◇	☆	☆	☆	1	2	3	4	5	6	7	8	9	10	11	12
The amount of market waste is reduced in collaboration with PIG & Poultry farmers			collected vegetable waste for reuse/recycling: 38.5/year wood chips for compost: 7/year		Maria Raveshvesi													
OUTPUT 1:																		
1-1	meeting with ministry of agriculture																	
1-2	forming of market committee																	
1-3	meeting with market committee																	
1-4	conducting monitoring and awareness in the market with committee to the vendors																	
1-5	exchange green waste with farmers																	
1-6	compost making 2 times a month																	
OUTPUT 2:	Clean School Program is implemented		at least 23 schools participated 11 urban schools 12 semi-urban (If it is possible to cooperate with a rural health inspector, if not, the goal of semi urban school is 5.)															
2-1	Develop a implementation plan																	
2-2	Conduct a teacher's workshop																	
2-3	Monitor school activities																	
2-4	conduct a teachers refresher workshop																	
2-5	Conduct a judging and award ceremony																	
OUTPUT 3:	Home Composting		10 bins are properly used.															
3-1	Select the Target Area/ Population																	
3-2	Sell 10 Compost Bins																	
3-3	Monitoring																	

PO - FIJI - Tavua Town Council									
Term: 2011 ~ 2015 (5years)		Indicator for Project Purpose:							
		2011		2012		2013		2014	
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7	8	9	10	11	12
		1	2	3	4	5	6	7	8
		9	10	11	12	1	2	3	4
		5	6	7					

[illegible]

2.2 Kiribati

a. PO modified in February 2014

PO - Kiribati		Indicators of Project Purpose		Volume of disposal waste (especially organic waste) is reduced by 5%		Version 3	
Term: 2011 ~ 2015 (5years)		Indicators of Project Purpose		Volume of disposal waste (especially organic waste) is reduced by 5%		Date Issued: 30th Jan, 2013	

c. PO modified in November, 2015

[illegible]

2.3 Tonta

a. PO modified in February, 2014

Appendix 2: Plan of Operation				Indicators of Project Purpose		REVISED PLAN OF OPERATIONS - TONGA													
Term: 2011 ~ 2015 (5years)				1. 6 experts (Trainers) in the SPREP inventory 2. More than 50% of target communities operate and maintain the garbage collection system with a minimum support from the government.		Person in-charge		2011		2012		2013		2014		2015			
JCC/SC/ Eva	Outputs and Associated Activities	JCC ◇ Steering Committee ☆ Evaluation Studies ★	Indicators for Outputs	1 2 3	4 5 6 7 8 9 10 11 12	1 2 3	4 5 6 7 8 9 10 11 12	1 2 3	4 5 6 7 8 9 10 11 12	1 2 3	4 5 6 7 8 9 10 11 12	1 2 3	4 5 6 7 8 9 10 11 12	1 2 3	4 5 6 7 8 9 10 11 12	1 2 3	4 5 6 7 8 9 10 11 12		
OUTPUT 1: The existing solid waste disposal facility and operation in Vava'u is improved																			
1-1	Conduct site investigation at the existing dump site		1-1 The existing dumpsite is rehabilitated																
1-2	Develop a plan, design and construction for the improvement of the site		1-2 Rehabilitated landfill is operated in accordance with operation manuals																
1-3	Undertake Environmental Impact Assessment																		
1-4	Waterquality monitoring of Vava'u dumpsite and nearby environment																		
1-5	Undertake rehabilitation of existing dumpsite																		
1-6	Development of the operation manual for Vava'u rehabilitated disposal site																		
1-7	Conduct training for site operation & maintenance																		
1-8	Operate the rehabilitated disposal site																		
OUTPUT 2: Solid waste collection service in Vava'u is improved																			
2-1	Improvement of facility and equipment for waste collection such as provision of bins, dumpsters and collection vehicles		2-1 Collection service is provided according to the schedule (plan)																
2-2	Develop a plan to improve domestic waste collection system		2-2 More than 80% of total households in Vava'u have access to garbage collection system																
2-3 *	Conducting of waste characterization study for collection service planning																		
2-4	Conduct pilot project of solid waste management																		
2-5	Promote a community-based garbage collection system according to the garbage collection plan																		
2-6	Monitor an implementation of community-based garbage collection																		
OUTPUT 3: Base for long-term Solid Waste Management is established in Vava'u																			
3-1	Establish a committee involving key stakeholders to oversee the management of solid waste in Vava'u		3-1 Solid waste management plan																
3-2	Development of solid waste management plan for Vava'u		3-2 Meeting or Workshop for Vava'u Solid Waste Management Committee is held annually at least																
3-3	Monitoring of solid waste management plan implementation in Vava'u																		
3-4	Evaluation and improvement of solid waste management plan																		
Remarks:	* Implementation of Activities of 2-3 and 3-1 ~ 3-4 and the details of activities will be confirmed at the later stage (in conderation of arrange ment with other development assistance schemes) before the commencement of the Project.																		

b. PO modified in February, 2015

Appendix 2: Plan of Operation		REVISED PLAN OF OPERATIONS - TONGA											
Term: 2011 ~ 2015 (5 years)		Indicators of Project Purpose											
		1. 6 experts (Trainers) in the SPREP inventory 2. More than 50% of target communities operate and maintain the garbage collection system with a minimum support from the government.											
Outputs and Associated Activities		Person in-charge											
JCC/SC/Eva	Steering Committee ☆ Evaluation Studies ☆	2011	2012	2013	2014	2015							
OUTPUT 1: The existing solid waste disposal facility and operation in Vava'u is improved		1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12							
1-1	Conduct site investigation at the existing dump site												
1-2	Develop a plan, design and construction for the improvement of the site												
1-3	Undertake Environmental Impact Assessment												
1-4	Water quality monitoring of Vava'u dumpsite and nearby environment												
1-5	Undertake rehabilitation of existing dumpsite												
1-6	Development of the operation manual for Vava'u rehabilitated disposal site												
1-7	Conduct training for site operation & maintenance												
1-8	Operate the rehabilitated disposal site												
OUTPUT 2: Solid waste collection service in Vava'u is improved													
2-1	Improvement of facility and equipment for waste collection such as provision of bins, dumpsters and collection vehicles												
2-2	Develop a plan to improve domestic waste collection system												
2-3 *	Conducting of waste characterization study for collection service planning												
2-4	Conduct pilot project of solid waste management												
2-5	Promote a community-based garbage collection system according to the garbage collection plan												
2-6	Monitor an implementation of community-based garbage collection												
OUTPUT 3: Base for long-term Solid Waste Management is established in Vava'u													
3-1	Establish a committee involving key stakeholders to oversee the management of solid waste in Vava'u												
3-2	Development of solid waste management plan for Vava'u												
3-3	Monitoring of solid waste management plan implementation in Vava'u												
3-4	Evaluation and improvement of solid waste management plan												
Remark: * Implementation of Activities of 2-3 and 3-1 ~ 3-4 and the details of activities will be confirmed at the later stage (in consideration of arrangement with other development assistance schemes) before the commencement of the Project.													

c. PO modified in November, 2015

Appendix 2: Plan of Operation		Indicators of Project Purpose		1. 6 experts (Trainers) in the SPREP inventory 2. More than 50% of target communities operate and maintain the garbage collection system with a minimum support from the government.		REVISED PLAN OF OPERATIONS - TONGA											
Term: 2011~ 2015 (5years)		Outputs and Associated Activities		Indicators for Outputs		Person in charge		2011		2012		2013		2014		2015	
JCC/SC/IE	va	JCC ◇ Steering Committee ☆ Evaluation Studies ☆	va	1-1 The existing dumpsite is rehabilitated 1-2 Rehabilitated landfill is operated in accordance with operation manuals	va	Manase, Pino, Feauni	va	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	2016
OUTPUT 1: The existing solid waste disposal facility and operation in Vava'u is improved																	
1-1		Conduct site investigation at the existing dump site				Manase, Pino, Feauni											
1-2		Develop a plan, design and construction for the improvement of the site				Manase, Pino											
1-3		Undertake Environmental Impact Assessment				Lupe, Manase, Pino, Feauni											
1-4		Water quality monitoring of Vava'u dumpsite and nearby environment				Manase, Pino, Feauni											
1-5		Undertake rehabilitation of existing dumpsite				Manase											
1-6		Development of the operation manual for Vava'u rehabilitated disposal site				Manase											
1-7		Conduct training for site operation & maintenance				Manase, Pino, Feauni											
1-8		Operate the rehabilitated disposal site				Manase											
OUTPUT 2: Solid waste collection service in Vava'u is improved																	
2-1		Improvement of facility and equipment for waste collection such as provision of bins, dumpsters and collection vehicles				Feauni, Mele, Manase											
2-2		Develop a plan to improve domestic waste collection system				Feauni, Mele, Manase											
2-3 *		Conducting of waste characterization study for collection service planning				Mafileo, Feauni, Mele, Pino, Manase											
2-4		Conduct pilot project of solid waste management				Feauni, Pino, Manase											
2-5		Promote a community-based garbage collection system according to the garbage collection plan				Feauni, Mele, Manase											
2-6		Monitor an implementation of community-based garbage collection				Feauni, Mele, Manase											
OUTPUT 3: Base for long-term Solid Waste Management is established in Vava'u																	
3-1		Establish a committee involving key stakeholders to oversee the management of solid waste in Vava'u				Feauni, Pino, Manase											
3-2		Development of solid waste management plan for Vava'u				Feauni, Mele, Pino, Manase											
3-3		Monitoring of solid waste management plan implementation in Vava'u				Lupe, Mafileo, Mone, Feauni, Mele, Manase											
3-4		Evaluation and improvement of solid waste management plan				Lupe, Mafileo, Mone, Feauni, Mele, Manase											
Remark:																	

3 Minutes of Joint Coordination Committee (JCC) Meetings

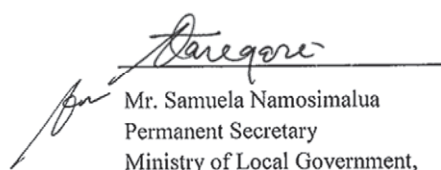
3.1 Fiji


a. Minutes of the Fourth JCC Meeting

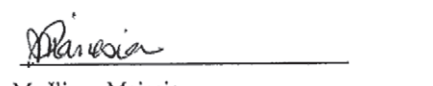
MINUTES OF MEETING
FOR
THE THIRD JOINT COORDINATING COMMITTEE
ON
JAPANESE TECHNICAL COOPERATION PROJECT FOR
PROMOTION OF REGIONAL INITIATIVE ON
SOLID WASTE MANAGEMENT IN PACIFIC ISLAND COUNTRIES (J-PRISM)
FIJI

Lautoka, Fiji, 3rd March, 2014.

for 
Mr. Shumon Yoshiara
Resident Representative
Japan International Cooperation
Agency
Fiji office.


Mr. Samuela Namosimalua
Permanent Secretary
Ministry of Local Government,
Housing and Environment.
Fiji.


Mr. Shiro Amano
Regional Chief Project Advisor
JPRISM Project.


Ms Iliana Maiesia
Acting Director
Department of Local Government
Ministry of Local Government, Housing and
Environment.

**MINUTES OF MEETING
FOR
THE FOURTH JOINT COORDINATING COMMITTEE
ON
JAPANESE TECHNICAL COOPERATION PROJECT FOR
PROMOTION OF REGIONAL INITIATIVE ON
SOLID WASTE MANAGEMENT IN PACIFIC ISLAND COUNTRIES (J-PRISM)
FIJI**

Suva, Fiji, 3rd March, 2015.

1.0 Welcome and Opening of the Meeting

- 1.1 Mr. Naresh Narayan (Senior Health Inspector) of Suva City Council welcomed members to the fourth annual meeting of the Joint Coordinating Committee for the JPRISM Project.
- 1.2 The Opening Address was then delivered by the Acting Director of Environment, Mr Aminiasi Qareqare.
- 1.3 The meeting was then chaired by Mr. Qareqare on behalf of the Permanent Secretary (PS) of Local Government, Housing and Environment (LGHE).
- 1.4 Members of the committee had made a short self-introduction before proceeding to the meeting agenda. Agenda of Meeting is attached as Appendix 1 and a listed attendant of members is attached as Appendix 2.

2.0 Matters arising out of Second JCC Meeting, 05 March 2013

- 2.1 Minutes of the third JCC was then adopted by all members with minor changes to be made the numbering of the minutes.

3.0 Progress of the Project Activities of the past year and Work-plan for 2014

3.1 Lautoka City Council Update

3.1.1 Home Composting:

- 272 bins (Achieved 77 %) have been sold so far, 54 compost bins monitored.
- Replication of 3Rs by councils to rural areas
- In average, 25 % of household waste can be reduced (recycled) by composting most effective 3R Strategy
- LCC is in the process of acquiring 100 bins.

Market Waste Composting:

- Sell 15tons of market vegetable waste and revenue of \$4,500 generated by March 2016 - Target already achieved in January 2015
- Sold 16.61tons of compost worth \$4,983.00.
- Sold 7,590 Kg (\$2,277.00) from January, 2014. (198% of 2013).
- Separated and composted 180 tons of market green waste in FY 2014.
- Grass composting was sustained.

3.1.2 Clean School Program:

- Target of 48 schools was to be achieved, 34 schools participated in 2014. (79.8%)
- Council implemented the CSP program in 2014.
- Council conducted the final judging in October, 2014.

- Awards function was held on Nov 14, 2014.
- Chief Guest was Acting Director of DOE, Mr Qareqare.
- Council budgeted \$2,000.00 for the function and DoE funded \$250.00

3.1.3 Vunato Dumpsite Improvements:

- Only improvement works for Special Waste Area left (85.7 % achieved)
- Sustained normal landfill operations, improvements and maintenance.
- Total of 27,505 tonnes of waste disposed in 2014 (~75.4tonnes/day).
- 359.1 tonnes of recyclables collected in 2014: Average 29.93 tons/month or 1.15 tonnes /day.

3.1.4 Separation of Collection of Recyclables

- Separate collection of recyclables in Veitari Ward, Lautoka hospital and schools.
- Only achieved 5.6 % participation rate (PO target - 20%)
- Communal recyclable collection Centre was launched by JPRISM Chief Advisor, Amano San at IYC Park as a pilot project on March 2, 2015. This centre will cater for collection of Pet bottles, Aluminium cans, food tin cans and hard plastics only.
- The centre will be also used for selling of compost.
- Council's two attendants at the park will manage the receiving and discharge of the recyclables.
- The recyclable collection service will be stopped from June 2015.
- The initiative was launched with media awareness, 4,000 circulars and signboard.

3.1.5 Awareness, Meetings and Visitation

- Council conducted total of 20 training for 980 participants in FY 2014
- 5 training/visits were facilitated for JPRISM C/Ps from the Region.
- Council staffs participated in 3 international and 1 regional training related to SWM and Environment.

3.1.6 2015 Project Work Plan

Home Composting Program

- Liaise with DoE for procurement of 30 compost bins under the home compost subsidy of the DoE and LCC will order 100 compost bins in FY2015
- Strengthen monitoring and awareness.

Market Waste Composting

- Work with JOCV to improve separation at market by contractor/vendors to increase amount of organic waste composted/month.
- Sell compost material from the proposed recycling centre for convenience of citizens.
- Need for small shed and mini shredder at composting yard.

Clean School Program

- CSP Program to be submitted by March.
- Conduct at least 2 monitoring before final judging.

Vunato Disposal Site Rehabilitation

- Construct new secondary access for special waste area - Budget of S28,392.00 has been approved.

Comments/ Questions

3.1.7 Mr Bolalilai (MolI) thanked the Lautoka council for the presentation.

3.1.8 Mr Qareqare also added on and thanked Lautoka for the hard work put in to the 3R projects and for being role models to other pacific island countries such as Papua New Guinea.

3.2 Nadi Town Council Update

3.2.1 Separate Collection of Recyclables:

- Nadi Town Council has sustained and continued with separate collection of Recyclables as per scheduled.
- Circular on collection schedule and home composting was distributed house to house creating awareness to residents at the same time.
- The participation rate for FY 2014 was 9.36 % is low and not all residents are discharging their recyclables.
- Amount of Recyclables collected annually 15,000kg- Achieved 15,047kg in FY 2014 (excluding PET bottles, glass bottles and hard plastics)

3.2.2 Home Composting:

- 245 bins were sold and 38 compost bins sold in FY 2014.
- Monitored 92 compost bins for FY 2014 and advice was also given for improvements.
- Currently there are no stocks of compost bins left.
- 330 bins to be sold by end of the project- Achieved 74% (as of FY 2014).
- Council to acquire 50 compost bins by mid April 2015.

3.2.3 Eco Bag Promotion

- Continued with the promotion and sales of Eco-bags (made from waste cut pieces) in cooperation with the women's groups and the garment factories/ tailoring shops in Nadi.
- Sold 876 bags for 2014 and 2036 bags sold as of 2014.
- Eco bags to be sold by 2016 3000 bags. 2036 bags sold as of FY 2014: (will be achieved by end of 2015).

3.2.4 Clean School Program:

- NTC conducts the regular monitoring (2) and organises the Clean Schools Competition. 18 schools entered for the CSC (3 new schools outside boundary) also joined.
- Received visitors from other towns/cities and Pacific Island countries (Palau, Kiribati) to observe the 3R activities implemented in schools.

- Continued with the dissemination of the CSP to other towns/cities (Rakiraki)
- 13 boundary schools and 5 outside boundary schools.

3.2.5 Awareness Raising/ Training Conducted

- Prepared and distributed the circular house to house creating awareness to the residents on separate collection of recyclables and home composting.
- Awareness rising for 66 participants during the Award Ceremony for CSP.
- Conducted Teacher's workshop in Rakiraki upon invitation by RTC and 9 Schools participated in this workshop.
- Presentation was conducted at three schools in Mana Island on CSP through the assistance of Mamanuca Environment Society.

3.2.6 2015 Project Work Plan

Separation collection of recyclables

- Continue monitoring of mixing of recyclables with non-recyclables.
- Strengthening awareness rising to the residents to improve and increase the participation rate of discharge.

Home Composting Program

- Continue with the regular monitoring of the compost bins.
- To acquire 50 compost bins by mid April 2015.

Clean School Program

- Prepare CSP schedule for 2015 and continue with the regular monitoring followed by the Clean School Competition.
- Amend the judging sheet for the final judging of the Clean School Competition before the next Judging in 2015.

Eco Bag Promotion

- Meeting with the garment factories /tailoring shops.
- Order and Purchase labels for the bags.

Comments and Questions

3.2.6 Mr Bolalailai thanked JICA representatives for grounding their views and helping Nadi town council in achieving the targets. In addition he also commended the council in regards to the clean school program.

3.2.7 Furthermore, Mr Sawada added on to congratulate as well as remind councils and participants that the project is not JICA's and therefore Fiji needs to take responsibility in terms of continuing the projects in place.

Sigatoka Town Council Update

3.2.8 Market/Green Waste Project with OISCA – 20% of generation amount of market waste is being composted target was not achieved in 2014 due to market renovations from May to October and Closing of Youth camp in December for school break.

3.2.9 Clean School Program targeted 10 Schools (4 urban schools and 6 rural schools)

3.2.10 Sigatoka Dumpsite Rehabilitation (SDS) (203 – 2015 New Project) :

September- the SDS rehabilitation was carried out, after approval of CEMP.

Works carried out:

- Topographical and redefinition survey
- Construction of embankments (from existing waste)
- Construction of proper access road
- Created separate section for disposal of Green Waste, Bulky waste and Glass & Bottles
- Training for dump attendants and organization of waste pickers

3.2.11 Hotel Waste Minimization Project -:

Pilot hotel: Shangri-La's Fijian Resort & Spa

- Installation of shredder for wood chipping
- Implementation of separate collection and disposal of green waste and bottles.
- Construction of recycling yard for recyclable items collected from the resort
- Waste questionnaire survey for hotels was conducted.
- Implementation Plan for pilot project was drafted.
- Pilot Project will be implemented from March 2014 for six month.
- Lesson learnt to be gained from pilot project will be disseminated to all the hotels located in Coral Coast Areas.

Others activities implemented within the year 2014

- Council hosted the PNG counterpart, Ms. Nanai Raga, to observe Market Waste Composting Methods. The trip included visit to Sigatoka Municipal Market, OISCA, and Disposal Site.
- Hosted Palau counterpart, Mr. Etibek Shelby, to observe Waste management practices. The trip included visit to Sigatoka Municipal Market, OISCA, and Disposal Site.

3.2.12 2015 Project work plan

- Landfill fencing
- Office Upgrade for attendant at site
- Daily monitoring of site by Sigatoka Town Council
- Regular monitoring by the monitoring committee
- Daily operations

Clean School Program

- Continue with CSP with current schools in program
- Teachers Workshop to be conducted
- Monitoring of School Activities from March to December
- Judging and Awards Ceremony in October

Market Compost Program

- Purchase of new bins to replace existing bins.
- Workshop to be conducted for market vendors.
- Review and improve current system.

3.2.13 Comments and Questions

- Mr Bolalailai thanked the council's hard work in implementing the project activities. To add, he also thanked the council for working with the hotels as the hotels are significant waste generators.
- Mr Amano (JICA) commended Sigatoka Council for co sharing the costs of the rehabilitation of the sigatoka dump site.

3.3 Ba Town Council Update

3.3.1 Clean School Program

- 15 schools participated including 5 Rural schools
- Final monitoring was carried out before Judging of all schools in November, 2014
- Awards Function was carried out on 21st November, 2014 whereby prizes were awarded for 1st and 2nd Runner up and Overall winner for both Rural and Urban schools.
- 11 schools participated (only 10 were judged)
- Target 21 schools to participate in 2014 CSP

3.3.2 Market/Green Waste Compost

- Final product was ready by starting of February which was used in the BTC gardens.
- Total amount of collected vegetable waste for compost is not calculated yet (BTC is re-establishing its data collection system. Estimated amount of vegetable waste recycled is 2-3 tons per month)
- Piggery farmers are taking some of the green waste to feed their animals.

3.3.3 2015 Project work plan

Market Compost

- To carry out data collection for Green waste collected for the market compost
- To improve the compost production process & increase the production amount
- More awareness for vendors and people at market by March 2015

Clean Schools Program

- Get all 11 Urban schools to participate in CSP and existing 5 Rural schools
- Teachers workshop to be conducted for CSP Program

Home Compost Program

- Newly started activity (not done yet)
- Decide how to select targets for compost bins and advertise home composting program

3.3.4 Comments and questions

- Mr Bolalailai thanked Tavua Town Council for the presentation.

3.4 Tavua Town Council Update

- No reports are available for FY2014.

- Moreover Rakiraki Town Council has been assisting the council.
- Schools that have recycled bottles have kept the bottles in school as school management aren't aware of any company willing to picking the bottles.

3.4.1 Clean School Program

- Clean SP started in 2015
- Visited schools with the support from CEO of Rakiraki Town Council in February 2015
- Appointed a person in charge in February
- Will be joining one of workshops in Rakiraki in March;
- Action Plans were received from the 2 Primary Schools
- Action Plan were received from 2 Secondary Schools

3.4.2 2015 Project work plan

- To conduct workshop with head teachers /awareness training at 4 schools.
- Conduct constant monitoring to the schools.
- To conduct more Awareness in terms of advertisement/pamphlets on 3R's.

3.4.3 Comments and questions

- Mr Qareqare (Chairman) requests support is rendered to Tavua Town Council.
- Mr Rakesh (CO- RTC) informed participants that Tavua and Rakiraki were affected the most after the decree came out on companies picking and delivering scrap metals as these companies are the same companies that pick the bottles from Tavua and Rakiraki.
- Mr Ali (SA Nadi) offered Tavua Town Council support.

3.5 Rakiraki Town Council Update

3.5.1 Clean School Program

- Teachers Workshop was organized in March, 2014.
- 8 schools submitted Action Plan
- 3 schools completed CSP

3.5.2 No data on home composting and market waste

- 1 hotel Tanoa Rakiraki
- 1st meeting conducted with management
- Target 4 bins
- Training in March for workers.
- Advertisement for home composting and EOI will be called in April.

3.5.3 2015 Project work plan:

- The council plans to target 7 schools
- Meeting was held with teachers in January 2015
- Workshop in each school is organized (as of February 23, 3 workshops were completed)
- Support from JICA Rep
- Trainings on 3R and CSP to Teachers Continue till 1st Quarter.
- The council plans to implement the segregation and composting, awareness on judging criteria.
- Council plans to carry out CSP judging and awards in the 3rd Quarter .

3.5.4 Comments and Questions

- Mr Fukase (JICA HQ Director) praised Rakiraki town council on the hard work even though the council did not have all the resources. In addition, Mr Fukase commends Rakiraki town council for selecting a Counterpart
- Mr Bolalailai also thanks Rakiraki town Council.
- Mr Amano (JICA) reminded participants that even though the program is coming to an end the waste management will be ongoing and therefore all participants should continue working hard.
- Mr Qarqare praised the cleanliness of the towns in the western division as this was evident as the officials toured the western councils. In addition, he also thanked the councils for hosting the tour.

3.6 Suva City Council Update

3.6.1 Compost & Green Feed Project:

- SCC plans to reduce the amount of market waste to the landfill by 15 % which is 21 tonnes a month.
- 2014 achievement – approximately 8-10% as achieved

Month	Green Feed (Kg)	Compost (kg)	Total (Kg)
March	7046.7	2,303.20	9,349.9
April	8189.8	3,466.60	11,656.4
May	11,803.9	1,872.50	13,676.4
June	12,722.1	997.6	13,719.7
July	16,871.5	1416.8	18,288.3
August	19,137.7	808.5	19,946.2
September	14,445.9	1,701.50	16,147.4
October	17,581.6	758	18339.6
November	14,601.5	7,935.30	22,536.8
December	18,283.3	2,747.4	21,030.7
Total	140,684.0	24,007.4	164,691.4
Percentage	85%	15%	

3.6.2 Waste data collection data tabulated below:

- October 2014: Inputting of garbage truck data carried out by SCC garbage and Refuse clerks using MS Access and approximately 20% of data has been collected.
- Training was carried out by J-PRISM Expert.

3.6.3 Clean School Program:

- 6 Primary Schools were piloted in 2014
- Teachers workshop was carried out on 21st of May 2014.
- Follow up of programs in piloted schools

- Conduct oratory contest to promote 3R in schools. Schools were invited from Lami and Nasinu to take part in the contest sponsored by BSP Bank.

3.6.4 Home Compost Bins:

- Bins sold/promotional from 2013 – 2014 is 379 bins.
- A total of 131 bins were sold (102 compost bins were sold and 29 were distributed for promotional purposes).

3.6.5 Other 3R activities given carried out in the 2014

Bagasau Green Village

- Each Block is provided with 3 Recycling bins for paper, pet bottles and cans.
- 2 Compost bins free.

Correctional Facilities

- Promote 3R (Composting/Eco Bags) in Prison to reduce their waste to the landfill.

Central Collection Points

- Promote recycling to the travelling public by placing 3 recycling bins at Total Service Station.

Working with overseas counterparts

- Ms Nanai from Papua New Guinea visited SCC from 28/8/14 – 29/8/14 to learn how SCC is carrying out Market Waste Separation and Composting Project.
- Ms. Bwaree Taorobwa and Mr Harry Langley visited SCC on June 6 to observe SCC Market Waste Separation and Composting Project.

3.6.6 2015 Project work plan:

Increase collection capacity to achieve 15% reduction of waste to the landfill by:

- Plan collection logistics for Saturday.
- Delaying collection of bins from 10.30am to 12.00pm
- Increase no. of pig farmers to increase outlet of waste.
- Increase production of compost to 6 ton/annum.

Clean school program

- To include all Primary Schools for CSP in 2015
- To visit schools and promote 3R to teachers.
- To carry out judging and awards towards the end of the 3rd term.

Home Composting program

- Supply interested people with 1 bin per house.
- Promote the use of compost bins.
- Monitor use of compost bins.
- Produce a brochure as guide to users on how to use and maintain their compost bins.

Comments and Question

- JICA Expert (Yurie Sakai) requested Ministry of Agriculture to provide a list of registered farmers to the councils.
- Ministry of Health commended SCC for the hard work put into the market waste program.
- Mr Qareqare (Chairman) asked whether SCC was distributing the bins as a promotional basis or did the schools apply for it.

3.7 Department of Environment Update

Department of Environment's presentation is as follows:-

3.7.1 Output 1: National 3R Strategy has been widely implemented in Fiji

Activity 1-1-1: Status of National Waste Management Strategy

- A Proposal paper was prepared and submitted to Management for approval as of October, 2014. The purpose of the Proposal Paper is to
 - propose the process for reviewing the National Solid Waste Management Strategy 2011 – 2014; National Liquid Waste Management Strategy 2006 and National Air Pollution Control Strategy 2007; and
 - Develop a National Waste Management Strategy The new National Waste Management Strategy will entail solid wastes management, liquid wastes management, air-pollution control management and chemical wastes management strategies and action plan for the next five to ten years.
- Issue that need to be addressed:
 - The Department does not have an existing Strategy to implement on waste management as all Waste strategies are out-dated.
 - Endorsement of Proposal paper by the Minister.
- Planned activities for the year 2015:-

Work Plan	Month
1. Development of Terms of Reference for NWMS review consultancy Workshop	March
2. Finalization of TOR and obtain A/Minister's Approval for the engagement of Consultant	April
3. Call for Tender via Fiji Procurement Office	April
4. Evaluation Process and A/Minister's approval	May
5. SGO approval on the Contract Agreement	June
6. Consultancy (3 months)	Jun - Aug
7. Submission of progress report	Jun -Aug
8. Submission of Final Draft NWMS 2015 - 2020	Aug
9. Submit to Minister & NEC for approval	Sep
10. Submit to Cabinet for approval	Oct
11. NWMS Steering Committee Meeting	Oct
12. Publish and Launch NWMS	Nov

Activity 1-1-2: Status of National 3R Policy

- In-house assessment of 3R Policy document
- Expression of Interest for the engagement of consultant to finalize draft 3R Policy advertised from 24th May to 11th of June 2014.
- Evaluation of Bidders
- Final Recommendations Report submitted to A/Minister on 5th August.
- Approval granted on 19th September.
- Environment Consultant Fiji Ltd was then engaged from 3rd November 2014 to 28th February, 2015.
- Final 3R Policy Consultation was conducted;
 1. 18th Feb in Nadi for Western Division
 2. 20th Feb in Labasa for Northern Division
 3. 25th Feb in Suva for Central Division
- Planned activities for the year 2015:-

Work Plan	Month
Finalize 3R Policy doc with the assistance of Environment consultants Consultant	March
Submit to SGO for legal approvals	March
Submit to Cabinet for endorsement	March

Activity 1-1-3: Home Composting Subsidy Program & Clean School Program (CSP) Financial Assistance.

- Preparation of Home Composting Subsidy Program and Clean School Program Financial Proposal in-house, with JPRISM council counterparts and experts.
- Proposal endorsed by PS for implementation for the year 2015.
- Planned activities for the year 2015:-

Work plan	Month
Launching and Training	26th March
Endorsement of Action Plan	April
Distribution of HC Bins and Awareness materials	April
Monitoring	Quarterly basis (June, Sep, Nov)
Review the program through bi-monthly meeting in each division	Nov. – Dec.

Activity 1-2: Conduct training program in cooperation with DOE and SCC

- Compost Training for workers/officers for councils in the Central Division was conducted at OISCA on October 6. A total of 10 participants attended the training and the lists are as follows:-

1. Workers/officers from Suva City Council- 3
2. Officer from Department of Environment- 2
3. Workers/officers from other councils in Central Division- 2

4. Workers/officers from other organizations - 2
5. J-PRISM expert – 1
- Planned activities for the year 2015:-
 1. Training program for planners of market compost project will be conducted

Activity 1-3: Implementing action plans in selected councils through pilot projects

(Please refer to annual progress reports submitted by council counterparts above)

Activity 1-4: Monitor the progress of 3R implementation in Fiji

Activity 1-4-1: Bimonthly Meeting

6. As a result of discussion with council counterparts, the frequency of J-PRISM regular joint meeting was amended from on a monthly basis to on a bi-monthly basis in FY 2014.
7. Department of Environment has organized four bi-monthly joint meeting J-PRISM counterpart councils:

No.	Date	Venue
9th meeting	27 Jun. 2014	RTC
10th meeting	21-22 Aug. 2014	SCC
11th meeting	16 Oct. 2014	STC
12th meeting	22 Jan. 2015	NTC

- Non-targeted JPRISM Councils such as Lami, Nasinu and Nausori TC were invited and present in the bi-monthly meetings.

Planned activities for the year 2015:

1. Bi-monthly meetings to continue on regularly basis and to include central and northern division councils.

Activity 1-4-2: Monitoring template

- Monitoring template was developed by Aug. 2014 with the assistance of J-PRISM Experts.
- Since Sep. 2014, all target councils were requested to fill in the template and submit it to DoE on a monthly basis.
- Received monitoring reports from Lautoka City Council, Nadi Town Council, Suva City Council and Rakiraki Town Council.
- Planned activities for the year 2015:-
 - To request all councils submit a monitoring report every three months at least.
 - To conduct Monitoring based on the submission of Councils

- Monitoring Reports on a quarterly basis.

Comments and Questions

- Mr Bolalailai requested councils to not only be focused on solid waste but also liquid waste as it is a big health issue in Fiji. In addition, Mr Bolalailai also noted that people's mindset would have to alter from waste being treated as waste but as a resource.
- Mr Amano (JICA) stated that the NSWMS is expired and therefore new strategies need to be implemented. Furthermore he states that without any strategies, donor companies/countries will have difficulty in coming in and offering funds. Moreover, Mr Amano also thanked the council and department for making the project in Fiji successful even though there were difficulties in the beginning.
- Mr Fukase (JICA HQ Director) also reiterated Mr Amano's statement that is, that the progress of the NSWMS will affect have some effect on the JICA's Phase two JPRISM. In addition, he also praised DOE's leadership in the sharing of information. Lastly, Mr Fukase also stated that the final evaluation will be in July and so far JICA is very proud of the success.
- Mr Hiroyuki Sawada stated that waste management should be a priority in Fiji. To add, he also urges the department of Environment to formalise NSWMS and the 3R policy.
- SA Nadi offered support of his department in the implementation of 3R projects.

4 Closing Remarks

- 4.3 Mr. Qareqare (chairperson) thanked members of the JCC on the good deliberations and officially closed the meeting at 1pm.

Attachments:

Appendix 1: Agenda of Meeting

Appendix 2: List of attendance

Appendix 3: Progress of Project Activities presentation

Appendix 4: Results of Mid Term Evaluation Report presentation

Appendix 5: Modification of Project Design Matrix and Plan of Operations

Appendix 6: Municipal Councils Draft Plan of Operations

Appendix 1: Agenda of Meeting



Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM)

4th Joint Coordinating Committee Meeting Tentative Agenda

Tuesday, 3rd March 2015 at Suva City Council Chambers.

09:00 - 09:25	Registration of JCC Members	
09:30 - 09:35	Welcome and Opening address	Chairperson
09:35 - 09:45	Introduction of the JCC Members	Chairperson
09:45 - 09:55	Matters arising from 3rd JCC Meeting	Chairperson
09:55 - 10:40	Progress Report of FY2014 and Work-plan for FY2015	Council (NTC, LCC, STC, BTC, TTC, RTC, SCC)
10:40 - 10:50	Morning Tea	
10:50 - 11:05	Progress Report of FY 2014 and Work Plan for FY2015 Updated Project Design Matrix (PDM) and Plan of Operations (PO)	DOE
11:05 - 11:20	Questions & Answers Other matters	Chairperson
11:20 - 11:35	Comments	
11:35 - 11:40	Closing Remarks	Chairperson
11:40	Meeting Adjourn	

Appendix 2: List of Attendants

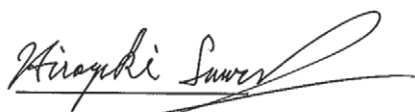
Name	Position	Email Address
<i>Ministry of Local Government and Urban Development & Housing and Environment</i>		
Mr Aminiasi Qareqare	Acting Director	
Ms Laisani Lewanavanua	Senior Environment Officer – Waste Management	
Ms Kelera Tokalan	Environment Officer, DOE West Office	
Ms Mere Leba	Environment Officer- Waste and Pollution Control unit	
Ms Laisa Matagi	Technical Assistant- Waste and Pollution Control unit	
<i>Ministry of Agriculture</i>		
Josivini Sausauwai	Environment Officer	
Epineri Cavanavanua	Senior Agriculture Assistant	
<i>Ministry of Health</i>		
Samuela Bolalailai	Senior Health Inspector	
<i>Sigatoka Town Council</i>		
Tulsi Ram	Chief Executive Officer	
Mr. Ashnil Sharma	Health Inspector	
Mr. Kouki Takano	JOCV	
<i>Lautoka City Council</i>		
Wally Atalifo	3R Officer	
Shalend Singh	3R Officer	
<i>Nadi Town Council</i>		
Mr. Rajeshwar Raj	Health Inspector	
Ms Nafiza Ali	Assistant Health Inspector	
Mr Robin Ali	SA- Nadi	
<i>Ba Town Council</i>		
Romika Mishra	Health Inspector	
<i>Tavua Town Council</i>		
Temalesi Henfiro	Chief executive officer	
Alvinesh Kumar	3R Officer	
Pramod Singh		
<i>Rakiraki Town Council</i>		
Mr Rakesh Chandra	Chief Executive Officer	
Rycichi Koya	JOCV	
<i>Suva City Council</i>		

Mr. Naresh Narayan	Senior Health Inspector	
Mr. Robert Randolph	Senior Assistant Health Inspector	
Mr Taito Waqaiyavana		
Maria Vulavou	SCC	
<i>Nasinu Town Council</i>		
Ashlyn Ali	3R officer	
Toshichika Kumagawa	JOCV	
Premila Chandra	NTC	
<i>JICA Office (Tokyo)</i>		
Mr Sawada	Resident Representative of JICA Fiji Office	
Mr Shiro Amano	Chief Advisor of J-PRISM	
Mr Yutaka Fukase	Director, Environmental Management Team 1, Global Environment Department, JICA	
Mr Toru Taguchi		
<i>JPRISM Project Expert</i>		
Ms. Yurie Sakai	Fiji Project Expert Officer	
Ms. Keiko Kani	Fiji Project Expert Officer	
Frances Tavaia	JICA Fiji	
Reiko Shido	JICA Fiji	

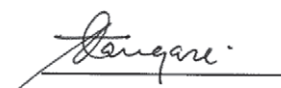
b. **Minutes of the Fifth JCC Meeting**

MINUTES OF MEETING
FOR
THE FOURTH JOINT COORDINATING COMMITTEE
ON
JAPANESE TECHNICAL COOPERATION PROJECT FOR
PROMOTION OF REGIONAL INITIATIVE ON
SOLID WASTE MANAGEMENT IN PACIFIC ISLAND COUNTRIES (J-PRISM)
FIJI

Suva, Fiji, 3rd March, 2015.



Mr. Hiroyuki Sawada
Resident Representative
Japan International Cooperation Agency
Fiji Office.



Mr. Aminiasi Qareqare
For Mr. Samuela Namosimalua
Permanent Secretary
Ministry of Local Government,
Housing and Environment.
Fiji.



Mr. Shiro Amano
Chief Advisor
J-PRISM, JICA

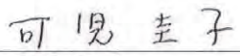


3.2 Kiribati

a. Minutes of the Fourth JCC Meeting

**MINUTES OF MEETING
FOR
THE FOURTH JOINT COORDINATING COMMITTEE
ON
JAPANESE TECHNICAL COOPERATION PROJECT FOR
PROMOTION OF REGIONAL INITIATIVE ON
SOLID WASTE MANAGEMENT IN PACIFIC ISLAND COUNTRIES
(J-PRISM)
KIRIBATI**

South Tarawa, Kiribati, 10th of February, 2015



Ms. Keiko Kani
J-PRISM Expert
Japanese International Cooperation
Agency (JICA)



Ms. Teue Baikarawa
Deputy Secretary,
Ministry of Environment, Land and
Agriculture Development
Republic of Kiribati

**Japanese Technical Cooperation Project for
Promotion of Regional Initiative on
Solid Waste Management in Pacific Island Countries
(J-PRISM, Kiribati)**

4th Joint Coordinating Committee

Date: 10th February 2015

Time: 10:00am

Venue: ECD Boardroom

Minutes of the Meeting (Draft)

1	10:00 – 10:05	Welcoming & Opening Remarks by Chairperson – Teue Baikarawa, Deputy Secretary, MELAD <ul style="list-style-type: none"> - Warm welcome delivered by Deputy Secretary to participants especially new JCC members and J-Prism consultants. She gave words of appreciation for their continue support particularly their efforts in making it to the meeting.
2	10:05 – 10:10	Introduction of JCC Members <ul style="list-style-type: none"> - A brief introduction around the table by all JCC members present
3	10:10 – 11:40	a) Progress of Activities in 2014 <ul style="list-style-type: none"> - First presentation delivered by ECD on the progress of Clean School program for 2014. It was highlighted that only 2 schools completed the program for 2014 out of the 5 schools that submitted their action plan. These two schools (Tebwanimwaneka & St John have done their best to implement the 3 major components of the program with the assistance of ECD. Based on the final judging it shows that both schools are winners. <ul style="list-style-type: none"> o Tebwanimwaneka winner of Division 1 (Environmental Awareness Raising) o St John – winner of Division 3 (Waste Separation & Recycling) o For Division 2 (school compost) there's no winner. The process of compost hasn't completed. b). BTC progress of activities

		<ul style="list-style-type: none"> - This was presented by J-PRISM expert, because BTC representative was late due to the traffic problems. The progress of activities was mainly on Output1. The major activities conducted last year focus on the promotion of green waste for compost making at BTC every 3-4 months a year. - another progress made by BTC is on the promotion of the use of wood chips as firewood which has been continued. - Operation of shredder machine also continue at the Landfill - for awareness activities, there are no activities done. School program to be initiated this year 2015 <p>b) TUC progress of activities</p> <ul style="list-style-type: none"> - Progress has been made on school programs promoting the 3Rs-R. 2 schools have been visited by TUC with the support of ECD and the FSPK conducting a workshop with teachers on waste management. The presentation made by TUC is related with part of the training on waste management conducted in Japan. <p>c) Plan of Operation for 2015</p> <p>ECD</p> <ul style="list-style-type: none"> - ECD plan of operation presented highlighting the important roles of ECD and partners to support CSP for this year. ECD will take the leading role and to be supported by the councils (BTC & TUC) to be responsible at their own designated schools. NZ UDP will also provide support to the school program in terms of providing compost training to students. MoE – District officer to push primary schools interest to the program and support implementation at the same time. - Proposed schedule for this year will be start off with a meeting with teachers Feb 11th, preparation of action plans by the schools interested and to be submitted before end of March. - Monitoring will be then further discussed and finalized by ECD and the councils. <p>BTC</p> <ul style="list-style-type: none"> - BTC CEO provides updates on the plan of operation with regard to BTC activities for 2015. Most of the activities need further improvement on management and financing systems for this year. The current situation shows that there are issues faced with data management system as well as sales record. Therefore a plan is to be made to address such issues. - Other ongoing initiatives such as promotion of wood
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		<p>chips and firewood to be continued over the year.</p> <ul style="list-style-type: none"> - Public awareness and school programs has be to initiated to promote 3Rs activities at the schools. - Establishing a sustainable financing system for BTC shredder operation will also be considered improved for this year. <p>TUC</p> <ul style="list-style-type: none"> - To work in cooperation with ECD to implement number of school programs in TUC for this year 2015.
4	11:40 – 11:50	New JCC Members – Ministry of Education and Ministry of Internal Affairs (MIA) are new members of JCC – MIA is not present in the meeting.
5	11:50 – 12:20	<p>Questions & Answers</p> <ul style="list-style-type: none"> - Reiko <ul style="list-style-type: none"> o A suggestion to provide effective solutions to the problems faced with CSP last year to be included in this year's plan of operation as way of improving the program - MoE - CDRC <ul style="list-style-type: none"> o Concern about the amount of trees being cut down for the purpose of chipping process at the landfill <ul style="list-style-type: none"> ▪ Only fallen trees are the targets of separate collection (answered by J-PRISM) o Another concern raised with regard to the School compost training as part of CSP if there is a possibility to be put in as part of the curriculum for year 5 & 6 Environmental Science so there is no need to conduct ongoing training to the schools <ul style="list-style-type: none"> ▪ Teachers need training and support for implementing (in particular regular management) - TUC <ul style="list-style-type: none"> o Raise concern about the issue with the shredder machine which has been an issue before. BTC & TUC agreed that the issue with the shredder will be settled internally among the two councils (BTC & TUC mayors)
6	12:20 – 12:25	<p>AOBs</p> <p>BTC</p> <ul style="list-style-type: none"> - All J-PRISM activities with BTC will be ongoing and to work in collaboration with TUC on the issue with

		<p>shredder machine.</p> <p>Keiko</p> <ul style="list-style-type: none"> - Remind everyone about the meeting with the schools. Encourage ECD collaboration with MoE and the councils to participate in such initiative. <p>Reiko</p> <ul style="list-style-type: none"> - express sincere thanks for seeing ongoing cooperation among partners. She further explains on the opportunity for training in Japan on Waste Management. Finally is presenting the JICA pamphlet regarding Cooperation in the Pacific Region including J-PRISM <p>Taulehia</p> <ul style="list-style-type: none"> - concern with BTC cooperation with TTM on transportation of Green waste if it is possible to provide update to ECD once they start such initiative. He also asked question on bulky organic waste – can they be accepted at the BTC landfill? In response from TUC, they can accept it but should be in a proper size and is suitable for a place where it going to be disposed at. Finally is a request on progressive report for BTC if the responsible officer could continue to provide update. <p>TUC - Harry</p> <ul style="list-style-type: none"> - Seek advice on the monitoring of Clean school program since school has started (how are BTC, TUC and ECD going to work together to implement the program). A plan has been set for all primary schools where BTC will responsible for schools in Betio while TUC and ECD to work with the rest in TUC. The team will work together with the assistance of District officer from MoE. <p>Teema</p> <ul style="list-style-type: none"> - Provides updates on pilot project from UDP – collection of organic waste - Updates on the GB truck spare parts needed which hasn't been operate for a while <p>Ross</p> <ul style="list-style-type: none"> - NZ to work in cooperation with ECD - Ross and UDP team to access chipper in BTC - Request partners to join the site visit to the landfill where possible - NZ UDP ongoing supports to J-Prism Clean School program this year to be maintained through the support from UDP Project officers (GB and Organic waste PO)
7	12:25 - 12:30	Conclusion by Deputy Secretary words of thanks to participants and to J-Prism consultants for their efforts in making a very productive and successful meeting.
8	12:30 - 1:00	Meeting concluded with lunch refreshment at 12:15pm

4th JCC Meeting, Kiribati

Participant List

1	Teue Baikarawa	MELAD, Deputy Secretary
2	Taulehia Pulefou	ECD
3	Teema Biko	ECD
4	Regina Rotitaake	ECD
5	Robite Teaete	ECD
6	Ruube Barekiau	ECD
7	Taraniman Rikiau	ECD
8	Takena Redfern	ALD
9	Melea Taulua	MOE
10	Karawa Areieta	MOE
11	Harry Langley	TUC
12	Eliza Tokataake	BTC
13	Kaiea Toromon	BTC
14	Ross Craven	NZAID
15	Reiko Shindo	J-PRISM
16	Keiko Kani	J-PRISM

b. Minutes of the Fifth JCC Meeting

**MINUTES OF MEETING
FOR
THE FIFTH JOINT COORDINATING COMMITTEE
ON
JAPANESE TECHNICAL COOPERATION PROJECT FOR
PROMOTION OF REGIONAL INITIATIVE ON
SOLID WASTE MANAGEMENT IN PACIFIC ISLAND COUNTRIES
(J-PRISM)
KIRIBATI**

South Tarawa, Kiribati, 18th of November, 2015

可児 圭子

Ms. Keiko Kani
J-PRISM Expert
Japanese International Cooperation
Agency (JICA)



Ms. Timuaki Barekiau
Assistant Secretary,
Ministry of Environment, Land and
Agriculture Development
Republic of Kiribati

**Minutes of Meeting for
The Fifth Joint Coordinating Committee on
Japanese Technical Cooperation Project for
Promotion of Regional Initiative on
Solid Waste Management in Pacific Island Countries
(J-PRISM, Kiribati)**

Venue: ECD boardroom
Date: 18th December 2015

- 1. Introduction Remarks by Mr. Taulehia Pulefou, ECD/MELAD**
- 2. Welcoming and Opening Remarks by Chairperson – Assistant Secretary of MELAD**
- 3. Introduction of the members (see attached list)**
- 4. Results of Activities in 2015 and future plans (by ECD, BTC, TUC)**

Results are shared by different Organizations in power point presentations.

4.1. ECD

Achievements:

- Preparatory meeting happened
- 6 schools participating in the program
- Waste minimization
- Improved awareness for teachers in compost making
- Trial of School Visit at Abaunamou Primary School
 - Waste education along with a field trip to Nanikai Landfill and two recycling sites in Betio

Result of CSP activities

- Monitoring done – June, August
- School visits
- Activities (School kaoki maange,)

TUC Involvement School Program (refer to Table in ECD ppt)

- Harry involved in the school programs
- 3 components
 - ✓ 1. Waste separation
 - ✓ 2. School Compost
 - ✓ 3. Rubbish Separation and recycling

Questions raised

MOE rep:

- Is there other opportunity to involve Junior Secondary Schools?
 - ECD – Described that the project focus is on primary school which targeting children in this kind and level of information on solid waste management.
- Is there any MOE representative in the program –
 - ECD- there was a MOE participant but the result shows that it added work load to representative.
 - Suggested if two focus participants involved.
- Suggestion to establish a CSP committee and with an MOU bind the stakeholders involved in order to encourage and strength their participation.

MIA rep:

- How you can compete with other similar programs. To monitor effectively
- How can you encourage MOE to support the program? – integrating into the curriculum for Primary levels. Year 5 &6 is now in progress on integrating solid waste management in the Curriculum.

NZHC-rep:

- The Sustainability of the program – engaging school kids to see where waste ends such as in Kaoki Maange, green bag use and Landfill.
- Transport problems issue – NZHC Solid Waste Management program is confident to be able to support this to support waste minimization through supporting of ECD staffs for field trips.

ECD-Taulehia:

- Is there a prize for final judging of school clean program?
- A plan has been prepared that a signboard will be a prize and JICA will provide financial support on this, if ECD can arrange necessary documents and stuff.

4.2. BTC Result

- Separate account for organic waste recycling in March
- Shift of Organic waste recycling from landfill to BTC compound
- Continuous Shredder operation
- Will develop equipment procurement plan such as purchase new equipment every 4 years.
- Will start community based green waste reduction activities using fallen leaves.

Questions raised:

JICA/J-PRISM

- Can BTC use the profit anytime? Yes
- Suggested if BTC can make rules/policy on how to utilize the profit from sales of chips and firewood and renting a chainsaw/grass cutter, in order to prevent misuse of the money. Propose MIA check the account regularly.

ECD

- Do BTC also receive big trunks and shredder? Issue from KRRP-Macdonow bulky organic waste if can be solved using BTC shredder/compost program. BTC's shredder can only shred small trunks.

TUC PPT (refer to table in PPT)

- Chainsaw use, one in landfill and one outside.
- Spare part is hard to find but BTC know where to order so TUC can get information from BTC. They can also request JICA to assist if still no progress.
- In order to realize the organic waste recycling activities at a landfill with a shredder, TUC has to establish a separate collection system for organic waste in the first place. Transportation issue is more important than a shredder (TUC has to give a priority to the improvement of its rubbish collection system for a while). J-PRISM expert proposed TUC to promote the community based organic waste recycling with BTC, before it can solve the problem of truck arrangement.

Questions raised:

MOE suggestion

- If TUC can also start initiating compost program that BTC is now working on it.
 - TUC responded that it is a good initiative and can able to conduct but it depends on the decisions the council higher level. If they can take into account the importance of this program. If not then no funding support will be provided from JPRISM.

5. Terminal Evaluation delivered by JICA

J-PRISM expert showed the result of the terminal evaluation and analyze its result.

5.1 Degree of achievement and factors of successful/unsuccessful results

Goals and Result of J-PRISM Kiribati

Goals	Indicators	Result	Evaluation
Overall goal (in 2019)	1.80% of household engaged in the green waste recycling	not evaluated yet (need to conduct a survey in 2019 by ECD)	Not yet
Project Purpose	1. 2 of experts (Trainers) in the field of 2 listed in the SPREP inventory 2. Volume of organic waste at three Landfill sites is reduced (recycled) by 5%	1. 0 2. 0.2%	0 Partly achieved
Output	Output 1 1-1 5% of households using compost 1-2 The amount of green waste for recycling is increased at Betio landfill site. (5% of recycling rate)	1-1 more than 10% of household use compost 1-2 1% of organic waste at Betio Landfill was recycled in 2015	Partly achieved
	Output 2 2-1 Seven schools of South Tarawa are implementing the Clean School Program	2-1 Six schools in 2015 (2 schools in 2014, and 4 schools in 2013)	Almost achieved

Degree of achievement and factors of successful/unsuccessful results

	Result	Positive/negative factors*	Possible countermeasures
Project Purpose	<ul style="list-style-type: none"> No trainers were registered from Kiribati. Only 0.2% of organic waste was recycled at three landfill sites. 1% at Betio Landfill and no data available at 2 landfills in TUC TUC cannot start a separate collection for organic waste 	<ul style="list-style-type: none"> Frequent change of counterparts is one of main reasons why no trainers can be registered. Difficulty of truck arrangement for a separate collection for organic waste (TUC) Need understand and support from Clerk and the council (SWM committee) in order to promote organic waste recycling and to set up an independent account 	<ul style="list-style-type: none"> Need to modify the contract, e.g. requesting to work for at least three years TUC has to improve its collection system before starting a separate collection for organic waste MIA needs to persuade SWM committee members to promote organic waste recycling and set up an independent account, by showing Betio's case
Output 1	<ul style="list-style-type: none"> BTC could not achieve its goal of 5%, but it continues organic waste recycling activities since 2012. Clerk created an independent account for organic waste recycling activities. (after 6 months, the balance is more than \$500) Clerk appointed younger workers, and this made BTC more active 	<ul style="list-style-type: none"> The amount of fallen leaves among organic waste is smaller than expected the maintenance work for trucks, a shredder and a chainsaw is not good Under the strong leadership of Clerk, newly appointed Work Supervisor worked hard. 	<ul style="list-style-type: none"> BTC need to make a maintenance and procurement plan of equipment and parts BTC has a new plan to promote to make and use leaf mold (rotten leaves) at communities, using fallen leaves (this makes it possible for BTC to increase a recycling rate)

Output 2	<ul style="list-style-type: none"> • 6 schools continue Clean School Program in 2015 • BTC continues to visit schools for monitoring 1-2 times per month • ECD submitted a monitoring report once • TUC has not submitted a monitoring result yet • Some schools installed a storage place of fallen leaves, but could not maintain it properly (always mixed with rubbish) 	<ul style="list-style-type: none"> • ECD, BTC and TUC shared monitoring work, this could result in no drop-out schools from the program • There are building renovation works at two schools in Betio, and this made it difficult to implement the program smoothly at these schools • Lack of vehicles/motor bikes for monitoring work 	<ul style="list-style-type: none"> • Need to strengthen a cooperative relation with MOE • ECD and councils develop programs & materials for waste education and composting and provide lectures based on the request from schools
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+: Sentences written in black and red are positive and negative factors respectively

- JICA raised the issue on the Kiribati-Officer involved in JICA project often changed, capacity skills lost which can able to assist in the future as JICA trainer staffs. It is important to be considered for JICA project progress in Kiribati
- ECD management to discuss with admin on this issue.

5.2 Progress of Recommended activities by Terminal Evaluation Team

Progress

Organization	Recommendations	Progress
ECD	• To secure the budget for monitoring	• General budget for inspection can be used for monitoring work
BTC	• To continue organic waste recycling activities	• YES BTC has a plan of new activities, promoting organic waste recycling at community bases
TUC	• To continue organic waste recycling activities	• YES TUC cut fallen trees and provide them as firewood for neighbors for free
MIA	• to make a plan of expanding organic waste recycling activities	• YES under preparation

- Regarding follow-up for the recommendation from the Terminal Evaluation Team, ECD also will discuss about budget securenness for activities like monitoring to schools. The expansion of the activities for green waste reduction to TUC is one of important issue and MIA can support this.

6. Recommendations/Proposals (by JICA/J-PRISM) - how to make current activities more sustainable -

J-PRISM expert propose counterpart organizations such as ECD, MIA, Councils, MOE,

and NZHC to take actions or activities in order to promote existing activities further.

6.1 How to support BTC to continue its organic waste recycling activities

Issues	NZAID	MIA	BTC
Regardless of Changes of Clerks, BTC should continue its activities	•	<ul style="list-style-type: none"> To consider amending Local Government Act, adding "waste minimization" as a one of councils' functions, along with rubbish collection service To supervise the performances of Works Department of BTC 	<ul style="list-style-type: none"> To consider amending Local Government Act, adding "waste minimization" as a one of councils' functions, along with rubbish collection service To continue waste minimization work
BTC need to arrange a means of transportation for monitoring work for Works Supervisor	•	<ul style="list-style-type: none"> To encourage councils to procure used motor bikes from MOH for monitoring work 	<ul style="list-style-type: none"> To procure a second hand motor bike from MOH for monitoring work
BTC need to implement a maintenance and procurement plan of machines and parts	<ul style="list-style-type: none"> to provide a technical support to buy necessary parts and renew a chainsaw with BTC's budget to provide a financial support, if possible, to buy expensive parts of a shredder 	<ul style="list-style-type: none"> to provide a support to arrange procurement, if necessary 	<ul style="list-style-type: none"> to make a maintenance and procurement plan to buy a chainsaw first
BTC need to promote organic waste recycling at community base	<ul style="list-style-type: none"> to provide a support to promote to make rotten leaves at communities 	•	<ul style="list-style-type: none"> To support Works Supervisor to promote organic waste recycling at communities
BTC has to manage the independent account properly	•	<ul style="list-style-type: none"> To supervise the management of the independent account 	<ul style="list-style-type: none"> To establish the rules in order to prevent the misuse of money

6.2 How to expand organic waste recycling activities to TUC

Issues	NZAID	MIA	TUC
TUC needs support from SWM committee members to promote organic waste recycling and an independent account	•	<ul style="list-style-type: none"> To amend Local Government Act, adding "waste minimization" as a one of councils' functions, along with rubbish collection service To promote a site tour to BTC in order to persuade SWM committee members 	<ul style="list-style-type: none"> To amend Local Government Act, adding "waste minimization" as a one of councils' functions, along with rubbish collection service To set up an independent account for organic waste recycling activities
TUC needs to improve its rubbish collection system first in order to establish a separate collection system for organic waste	<ul style="list-style-type: none"> To support TUC to improve councils' rubbish collection systems, including examining the possibility of contracting out When TUC can arrange a truck regularly, to provide a technical support to 	<ul style="list-style-type: none"> To support TUC to improve councils' rubbish collection systems, including examining the possibility of contracting out 	<ul style="list-style-type: none"> To improve council collection service (if TUC can arrange a truck regularly for a separate collection service of organic waste, the council can start organic waste recycling at a landfill or near the council office)

	start a separate collection service for organic waste		
TUC need to promote organic waste recycling at community base	<ul style="list-style-type: none"> To support councils to promote to make and use leaf mold (rotten leaves) at communities 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> To support Works Supervisor to promote organic waste recycling at communities

- J-PRISM asked ECD to emphasize the importance of waste minimization in the Solid Waste Management strategy.
- ECD to discuss further with NZHC on waste minimization officer. Hence to reword to the second point on “ to provide a financial support, if possible, to buy expensive parts of a shredder

6.3 How to promote waste education at schools

Issues	MOE	ECD/councils
Development of programs and educational materials	<ul style="list-style-type: none"> to establish a cooperative relation with organizations concerned To develop programs and educational materials of field visits in cooperation with organizations concerned to make a list of possible field visits for schools 	<ul style="list-style-type: none"> To develop programs and educational materials of field visits based on the result of J-PRISM and UDP with consultation from MOE To train lecturers To support schools to conduct a monitoring for their activities
Implementation of field visits	<ul style="list-style-type: none"> To encourage schools to arrange field trips and arrange necessary budget 	<ul style="list-style-type: none">

Question raised:

ECD-Taulehia:

- Are there any plans for J-PRISM?
- JICA responded that next phase is in preparation but it is based on the result of the evaluation of the first phase.

ECD-Nenenleili:

- Timetrame of the feedback
- JICA will communicate with Office from Tokyo and see when.

TUC:

- Evaluation report if can shared, ECD responded that it has been circulated via email to the stakeholders.

7. Summary and Closing Remarks (by Secretary of MELAD)

MELAD remarks:

Programs links to Kiribati Development Policy

Benefits are relayed

Expand life's (capacity usage) for the landfill and

Promote cleanliness to our country

JPRISM remarks:

- Hope that Kiribati will continue the program on solid waste management what JICA has initiated as solid waste is a continuous issue. A positive point of Kiribati Collaboration/cooperation between involved stakeholders was easier to work with.
- A question for next phase will be relayed back once Tokyo main office has been consulted.

ECD: Taulehia remarks:

- Appreciation to the all different government organizations for their positive contributions and JICA for its patience in working with Kiribati in this project. Also acknowledging the attendance of both the Deputy Director and Director of ECD. Lastly to the Chair (Assistant Secretary) for chairing the meeting and also in giving an opening and closing remarks.

Meeting adjourned at 1:45pm

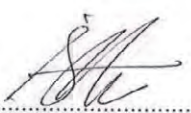

FINAL JCC MEETING PARTICIPANT LIST – 18TH NOV 2015.

FULL NAME	ORGANIZATION	EMAIL ADDRESS/PHONE NUM
1. Ross Craven	NZHC	
2. Kaiea Toromon	BTC	
3. Tanana Bakoa	MOE	
4. Harry Langley	TUC	
5. Taulehia Pulefou	ECD	
6. Reiko Shindo	J-PRISM/JICA	
7. Keiko Kani	J-PRISM	
8. Timuaki Barekiau	Assistant Secretary - MELAD	
9. Robite Teate	ECD-MELAD	
10. Taouea Titaake	ECD Ag Director – Officer in Charge	
11. Nenenteiti Teariki	Director, ECD(on study leave)	
12. Eliza Tokataake	MIA	
13. Bveneata Kaoti	ECD-MELAD	

3.3 Tonga

a. Minutes of the Fourth JCC Meeting

MINUTES OF MEETING
FOR
THE FOURTH JOINT COORDINATING COMMITTEE
ON
JAPANESE TECHNICAL COOPERATION PROJECT FOR
PROMOTING OF REGIONAL INITIATIVE ON
SOLID WASTE MANAGEMENT IN PACIFIC ISLAND COUNTRIES (J-PRISM)
Neiafu, Mataika, Kalaka Landfill and Mala Island,
Vava'u February 11, 2015

 Mr. Paula Ma'u Project Director CEO Ministry of Energy, Information, Disaster Management, Environment, Climate Change and Communication	 Dr. Siale 'Akauola Deputy Project Director CEO Ministry of Health
 Mr. Shiro Amano Chief Advisor Project Office of J-PRISM	 Mr. Hiroshi Kikawa Resident Representative Tonga Office Japan International Cooperation Agency (JICA)

Fourth Joint Coordinating Committee on the Project
11 February, 2015 - Vava'u Governor's Office Conference Room and Mala Island Conference Room, Vava'u

- 1. Meeting started at 08:45am**
- 2. Attendants list of the meeting are given in Appendix 1**
- 3. Opening of the meeting**

Mr. Paula Tatafu, Master of Ceremony (hereinafter, MC), Vava'u Magistrate and Government Representative called for meeting to begin with respect to all participants, then he welcoming the arrival from Tongatapu and asked for the meeting to be opened with a prayer by assigned Mr. Samuela Fakatou, Vava'u Officer In Charge (hereinafter, OIC) and Sub Treasurer, Ministry of Finance and National Planning (hereinafter, MNFP) for Invocation.

MC continued by briefing the whole day program, and passed the floor to Ms. Feauini Laumanu, Vava'u OIC, Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (hereinafter MEI-DECC) to proceed briefing the program in details. After Ms. Laumanu briefed the day in details, MC then took the floor and asked the meeting to move on to site visit program.

4. Site Visit

First Site Visit was to Mataika Community and observed the Community based collection System, and then moved to Kalaka landfill and observed the current operation status.

[Due to bad weather, original venue of the next part of the meeting to be held in Mala Island was hold back and proceed on at the Governor's Office Conference Room]

Ms. Feauini Laumanu apologized for the change of venue due to bad weather, and asked to proceed the next item of the agenda at the Governor's office, and will, be move on to Mala Island if the weather is back to a satisfactory condition.

5. Welcoming Address (Mr. Paula Ma'u, Chief Executive Officer of MEI-DECC)

Mr. Paula Ma'u, Chief Executive Officer (hereinafter, CEO) of MEI-DECC delivered the welcoming speech. He welcomed everyone to the year 4th of the project, CEO for MEI-DECC reminded what MC expect a more short meeting but a productive one. He brought up the idea of having a good view through site visit of the successful in the project. Finally welcoming each participation to Vava'u and allowing asking the Governor of Vava'u, Lord Fulivai for Opening Address.

6. Opening Address (Lord Fulivai, Governor of Vava'u)

He reminded that this is the fourth JCC meeting of this solid waste management implemented in the region, Vava'u has chosen to implement this project in the Kingdom. He brought up memories when the project started, it was tough and now some of us are back here again. The whole idea of rehabilitation of dumpsite was hard but cooperation between the team who believed in this make things successful. He emphasized how surprise he was to see that a lot of work and commitment through awareness, and community meeting and at the end we experienced the support from the community. Mataika is a witness of that support, the expansion and success of the project. Again acknowledged J-PRISM, that this outreach change things to a much beautiful waste management area. He highlighted the idea of financial mechanism is a very important part here in raised to ensure the sustainability of the Project. Thanking the CEO for Ministry of Health (hereinafter, MoH) and CEO for MEIDECC for the working together, he commented that this is a witness that we can be involved and work together, Thanking Mr. Hiroshi and JICA in guidance for tackling financial and technical issues. He understand it's taking time to see the improvement and success, and like every other project has its own challenges, but at the moment he said "Our Waste Management Project has experience 80% success where only 20% remain that requires our cooperation".

7. Review and Matters arising from 3rd JCC Meeting

Mr. Filimone Lapao'o, from MEIDECC, presented the minutes and the matters arising from the 3rd JCC meeting held in Nuku'alofa, Tongatapu, in February 2014.

- i. Regards the Bacterial presence in the leachate pond, CEO for MoH and Co-chair of the Project mentioned about all the updates and work out they try to treat these bacteria problems (using of water treatment)
- ii. Lord Governor stated that there has been improvement after working done toward it
- iii. Hon. Minister of Health mentioned of building of fence can be a minor issue to be considered which is to look for funds and budget of the fence.
- iv. 80% of participation on waste collection, what can be done to Kalaka if after 10 years, all community will fill Kalaka in high volume
- v. Truck and Septic tank; consider to help in technical ways, this will be more helpful for sustainable collection
- vi. Governor agreed that we need to outreach. Capital operation, conserving of recycling systems
- vii. CEO for GIO mentioned that the international market price of steel that is mostly collected to GIO, is getting very low.

8. Progress of the Project Activities

(1) [Output 1] Improvement of the existing solid waste disposal facility and operation in Vava'u (Mr. Manase Malua (Health Inspector, MoH Vava'u))

Hon. Minister liked to see the differenced on the presenter's first slide that dumpsite in the previous stage has now become a landfill after rehabilitation.

Continued the presentation on water treatment system through artificial and natural treatment, and on showing how landfill has been rehabilitated and operated through the last 4 years. Water monitoring was conducted especially the leachate ponds.

CEO for MoH confirmed what the Governor just explained and confirmed the system is working.

Mr. Fa'afetai also explained that on the system that treatment can work for nutrients only, and heavy metal is not treated. The buffer zone designed is put in place to protect the waste from entering into the lagoon and to zoning the waste.

Ms. Yurie Sakai added that contamination can be caused by the sewage plant, which is located right at the back of the landfill, and need to be considered.

Mr. Manase Malua emphasized that fecal coliform was in high concentration, after put up the fence in place, the concentration drop into satisfactory level, a lesson learned that this might be from an outside source. The operation cost of rehabilitated landfill was financially assisted by JICA Project at the beginning, but it has been covered by MoH budget from FY 2014 without any financial assistance from the Project.

Hon. Governor said that the original purpose of the proposed fence to keep people away from landfill, but now it also aims to put rubbish inside of the landfill as proposed by presenter.

Recycling area was put in place at the entrance of landfill for those who brings recyclable items into the landfill, and it was abused by the dump users. The area has been now closed and cages are placed for only small recyclable items such as cans only. In order to ensure the proper landfill operation, the project proposed to allocate an extra person to work on the landfill office especially for monitoring the waste entering to the landfill. It was highlighted that the Tongan government will not be able to maintain and operate with insufficient budget once the J-PRISM is moving out.

Suggesting given from the Governor to move on to Mala Island since the rain was stopped. JCC members agreed.

BOAT RIDE to MALA Island

Chairman, CEO for MEIDECC asked Ms. Feauini Laumanu to continue the presentation.

(2) [Output 2] Improvement of solid waste collection service in Vava'u (Ms. Feauini Laumanu (Co-Project Manager, MEIDECC, MEIDECC, Vava'u))

As all JCC members witnessed from Mataika, however Ms. Laumanu made further explanation through her presentation. Community based garbage collection had been previously implemented on two communities before the project initiated, that become a base for the community based collection system. The garbage collection plan was developed by waste committee of each target community based on the community's capacity. By the year 2020, all communities in Vava'u are targeted and expected to be involved in the system. The system is going well, but there are still rooms for improvement such as row participation rate. Workers are mostly youth and men group. Advice is always given out throughout monitoring activity including the follow matters.

- safety in workers collection

- building of platforms
- Wheelie bins have positive and negative impacts on the system depends on how each community will handle it.
- Mixing of waste without separation is still a problem in most communities

Financial records are also collected through the monitoring sheet. Refreshment for labors, fuels and hiring of trucks are the common expenditure, and the source of fund is varied from Kalapu fund or community fund. Radio program has been used since 2014 until today. Sometimes technical advice is given out on the air.

(3) [Output 3] Establishment of framework and system for long term solid waste management in Vava'u
(Ms. Mele Finau, MEIDECC, Vava'u)

Ms. Mele Finau explained that the school program was taken over from a JICA volunteer who left the program without anyone to handle the program. The basic concept of the Clean School program is followed by that of the community based collection. School's major challenge was the transportation of waste from the schools to the landfill. At the same time, we change the previous plan and make new plan to combine together the community with school. Since its already witness that community based collection take ownership so approaching their own school in their community will help to sustain the program. From this perception, the problems that faced with school in transferring of their wastes to Kalaka will be solved. This year plan for CSP that we will follow the community initiatives such as date of collection, building platforms and also put up their own recycling centre within their own school. Ongoing segregation awareness can still be enforce because as it believe that the only way to reach out messages to all people through schools awareness and training the kids. Composting System is one of the new idea will also proceed and establish to school is one way of motivation them to the program and teach the teachers and kids about the natural wastes and how it works naturally. The plan for FY 2015 is to request schools to build platforms as well that would be helpful for community to collect waste from schools. Waste segregation methods will be also introduced into schools, and composting is one of the future plans for school activities.

9. Status of Achievement (Project Design Matrix (PDM), Plan of Operations (PO))

(Ms. Yurie Sakai (J-PRISM Expert))

Ms. Yurie Sakai shared some regional initiatives. J-PRISM Solomon Islands counterparts visited Vava'u to learn about Vava'u SWM system and practices, and to take it to Solomon as a lesson learnt from Vava'u. In FY 2015, the Project will have two big events, namely terminal evaluation of the Project to assess the sustainability of the Project, and the final and last JCC meeting to be held in November or December 2015.

CEO of Health raised a concern on the community based collection system that is implemented based on the good enthusiasm of community. However, there are some risks since the system is totally voluntary. His concern was what kinds of support needed to sustain the collection system without the risk.

Hon. Governor explained that the sustainability of the system would depend on the outreach, and the support from all stakeholders who attended today's meeting. Coordination among stakeholders is also needed as solid foundation.

Mr. Tapu Panuve of WAL, expressed that there are lot of strength here in Vava'u, and participation of community is still amazing compared to WAL's own system in Tongatapu. He suggested that a funding mechanism should be established to sustain the operation as presented in Output 3.

CEO and Chairman Mr. Paula Ma'u supported the views of Mr. Tapu Panuve and mentioned that the sustainability of the project is linked with the budget issues. He proposed all the JCC members to have a special meeting during the 2nd week of next month to examine what should be done in the coming financial year.

Chairman also thanked the presenter and brought the meeting to the end of presentation part.

Discussion and Other topics

Comments

Hon. Minister of Health commented that the purpose of the project is well represented in attendance. He also mentioned that waste management is one of the important issues nowadays and worldwide. He recalled being part of the process of rehabilitation of the dumpsite. At that time the lifetime left for the dumpsite is about 5 years, but now we have witnessed that it can be live for another 20 years. He acknowledged the team work. There was confusion between MoH and MEIDECC on who to look after the landfill and waste management, but now both Ministries in collaboration with other stakeholders should share responsibility and work together. During the meeting we all have picked up a lot of idea. He reminded and encouraged everyone of taking responsibility and ownership of this project. He reminded the current outbreak of the dengue, its nationally impact on all not just a community, and his advise that community based garbage collection system can provide an opportunity to everyone to take and feel ownership of waste management. To Ms. Yurie Sakai and Mr. Faafetai, I hope this is not the end of our partnership. On our way we all experienced the nature of Vava'u and how great it is, but still we keep doing nothing in terms of tourism. We hope that the coordination, working together and partnership will uphold the beauty of Vava'u. Impact of improper management of solid waste will have an impact on the health and life of our people. Lastly, he appreciated everyone for inviting him.

Mr. Hiroshi Kikawa of JICA Tonga Office, commented that he is very very happy today of the Project, especially seeing a green landfill. He mentioned that the current landfill can be in the future happen to be one of a tourist destinations. For Output 1, he mentioned that it is very very successful and acknowledged the efforts of Mr. Manase of MoH Vava'u. For Output 2, as we seen today, he mentioned it was a very green community and we have achieved the outputs of the Project. Tonga is one of the top country out of eleven target pacific countries that J-PRISM is implement on. He continued by emphasizing the need to continue this kind of useful discussion and

from there we can move on to a new stage by continuing to make effort and sharing the happiness of our success.

Mr. Fa'afetai of J-PRISM Project Office commented that what observed here in Tonga is a different story, Tonga project has been the most successful in my J-PRISM experience and it is going all the right way. Encouragement and commitments have been given by CEOs and Minister, other important stakeholders. He also acknowledged the commitment from WAL, the current community based garbage collection system has developed a platform to move in to their system. He also stressed that we should not forget the commitment that has been laid out by the Governor and the team Vava'u. He acknowledged to everyone for working together and finished up his speech by emphasized... "with one hand, we can't do much but with many hands, we possibly do anything".

10. Closing Remarks

Dr . Siale Akauola as a co-chair acknowledged the Governor and our Waste Management team here in Vava'u, and also stressed that we have responsibility in keep our people safe and protect from the health hazards. Our purpose is to serve the people. Acknowledged the presence of the Minister and Lord Governor as they have ability for disperse and manage our resources. His last remarks "Be smart on approach our strength and use it wisely".

CEO of MEIDECC and Chairman thank for everything and assigned Director of Civil Engineer, MOI for Benediction and blessing of the Lunch.

Lunch

Meeting Closed at 03:00 pm

Appendix 1: List of Participants (23)

Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC)

Mr. Paula Ma'u	Project Director Chief Executive Officer
Mr. Filimone Lapao'o	Counterparts of the Project Conservation Officer
Ms. Feauini Laumanu	Co-Project Manager of the Project Energy Planner
Ms. Mele Finau	Counterparts of the Project Environment Officer
Ms. Setaita Paea	Counterparts of the Project

Ministry of Health

Hon. Saia Piukala	Minister of Health
Dr. Siale 'Akauola	Deputy Project Director Chief Executive Officer
Mr. Manase Malua	Counterpart of the Project Health Inspector

Governor's Office

Hon. Lord Fulivai	Governor of Vava'u Vava'u Governor's Office
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Relevant Ministries and Organizations

Ms. Sinama Tupou	Ministry of Internal Affairs
Mr. Tapu Panuve	Chief Executive Officer Waste Authority Ltd
Mr. Filimone Tu'ikolovatu	Chief Executive Officer GIO Recycling
Ms. 'Asopesio Lakalaka	Ministry of Finance and National Planning
Mr. Samuela Fakatou	Ministry of Finance and National Planning Vava'u OIC and Sub-Treasurer
Ms. Lupe Mahe Latu	Ministry of Education and Training Vava'u OIC
Mr. Paula Tatafu	Ministry of Justice Chief Magistrate, Vava'u Gov't Representative
Mr. Pesalili Tuiano	Ministry of Infrastructure Director of Civil Engineer

JICA Expert for J-PRISM

Ms. Yurie Sakai	JICA Expert Kokusai Kogyo Co. Ltd
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J-PRISM Project Office Samoa

Mr. Faafetai Sagapolutele Assistant Chief Advisor

JICA Tonga Office

Mr. Hiroshi Kikawa Resident Representative

Mr. Shoichi Iwata Project Coordinator

Alfred Vaka Programme Officer

MEDIA

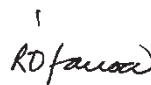
Mr. Pomana Tauape Radio FM Vava'u

b. **Minutes of the Fifth JCC Meeting**


**MINUTES OF MEETING
FOR
THE FIFTH JOINT COORDINATING COMMITTEE
ON
JAPANESE TECHNICAL COOPERATION PROJECT FOR
PROMOTING OF REGIONAL INITIATIVE ON
SOLID WASTE MANAGEMENT IN PACIFIC ISLAND COUNTRIES (J-PRISM)
Neiafu and Tongan Beach Resort, Vava'u, November 23, 2015**



.....
Mr. Paula Ma'u
Project Director
CEO
Ministry of Lands, Environment,
Climate Change & Natural Resources



.....
Dr. Raynold 'Ofanoa
Deputy Project Director
CEO
Ministry of Health



.....
Mr. Shiro Amano
Chief Advisor
Project Office of J-PRISM



.....
Mr. Hiroshi Kikawa
Resident Representative
Tonga Office
Japan International Cooperation Agency
(JICA)

**Fifth Joint Coordinating Committee on the Project
23 November, 2015 - Governor's Office Conference Room and Tongan Beach Resort,
Vava'u**

- 1. Meeting started at 09:30am**
- 2. Attendants list of the meeting are given in Appendix 1**
- 3. Briefing by Ms. Feauini Laumanu, MEIDECC Vava'u OIC**

At the Governor's Office Conference Room, Ms Feauini Laumanu, Master of Ceremony (hereinafter, MC), Vava'u OIC, Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (hereinafter MEIDECC) called the meeting to begin by welcoming all the participants and those that arrived from Tongatapu and asked that the meeting be opened with a prayer by Mr Peni Lakai, Ministry of Education and Training, Vava'u Officer In Charge (hereinafter, OIC).

The MC continued by briefing the whole day program in details and asked the meeting to proceed to the site visit program.

- 4. Site visits**
 - (1) Kalaka rehabilitated landfill
 - (2) Community-based garbage collection in Pangaimotu community

The participants continued to the Tonga Beach Resort for the second part of the meeting.

- 5. Welcoming Address by Mr. Paula Ma'u, Minister of MEIDECC**

At the Tonga Beach Resort, Mr Paula Ma'u, Chief Executive (hereinafter, CEO) of MEIDECC delivered the welcoming speech. He welcomed everyone to the 5th year and/or final year of the project and hope that this meeting will be a productive meeting. Finally, he concluded by inviting the Chairperson of the meeting, Hon. Siaosi Sovaleni, Deputy Prime Ministry (hereinafter, DPM) and Minister of MEIDECC to lead the meeting in accordance with the agenda put forth.

The Chairperson, Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC called the meeting to order and invited Hon. Saia Piukala, Minister of Health to conduct the opening address.

- 6. Opening Address by Hon. Saia Piukala, Minister of Health**

Hon. Dr Saia Piukala recalled that in 2011, he was first introduced to the project in his capacity as the OIC of the Ministry of Health (hereinafter, MoH) in Vava'u and has been a counterpart of the project ever since. He also added that at the time, it was merely impossible to rehabilitate the existing dumpsite, however, he is very impressed with the outcome of the project and continue to stress the importance of sustaining the project and the operation of Kalaka landfill. He raised the issue of whether the MoH should continue to look after the waste management in the Outer Islands or Waste Authority Ltd should

take over the responsibilities. He also showed expectations on the next phase of the J-PRISM Project by making use of lessons learned from Vava'u.

7. Review and Matters arising from 4th JCC Meeting by Ms Mafile'o Masi, MEIDECC

Ms Mafile'o Masi, from MEIDECC, presented the matters arising from the 4th JCC Meeting held in Neiafu, Vava'u, in February 2015. The current status and the progress of recommended activities are showed below.

8. MEIDECC

Matters arising from 4 th JCC Meeting	Current status
[Output 1] Improvement of the existing solid waste disposal facility and operation in Vava'u <ul style="list-style-type: none"> ① MoH to continue operation and maintenance works according to the manual. ② MoH to secure necessary budget for Kalaka operation and maintenance ③ MoH to allocate one more staff for Kalaka (recording of incoming waste, monitoring of recycling station, etc.) ④ MoH to strengthen communication between MoH head office and MoH Vava'u Office ⑤ MoH to examine the implementation system for water monitoring as the IWCM Project will end in Jul. 2015. ⑥ MoH to construct fence for the surroundings of Kalaka landfill to avoid scattering of disposed waste 	<ul style="list-style-type: none"> • MoH continues to conduct regular landfill maintenance works due to the cooperation of the Ministry of Infrastructure (hereinafter, MoI). • MoH increased the budget allocation for Kalaka landfill management from TOP\$4,000 (FY 2014/15) to TOP\$8,000 (FY 2015/16), that enable MoH to carry out soil covering works. • MoH has allocated the budget required to recruit one additional staff in the future. • MoH has allocated approximately TOP\$7,000 and constructed a fence along the landfill boundary with the aim of preventing of waste scattering in September 2015. • There is close collaboration between MOH, MEIDECC and Town Officers in a voluntary basis in conducting the community inspection as part of the solid waste management program.
[Output 2] Improvement of solid waste collection service in Vava'u <ul style="list-style-type: none"> ① MEIDECC/MoH to make efforts; <ul style="list-style-type: none"> - to increase participation rate - to improve the discharge manner - to improve the separation of waste/metals 	<ul style="list-style-type: none"> • MEIDECC allocated budget of TOP\$15,000 (FY 2015/16), that enables community garbage collections and awareness programme. • Vava'u's community-based garbage collection system has been identified as one of the best practices which were introduced by 5 years J-PRISM Project.
[Output 3] Establishment of framework and system for long term solid waste management in Vava'u <ul style="list-style-type: none"> ① In order to sustain all the project activities, MEIDECC/MoH to examine the sustainable funding mechanism, like budget allocation, CDL, environmental tax for tourism, etc. 	<ul style="list-style-type: none"> • MEIDECC/MoH continues to provide directions and advice and extra budget to meet the costs associated with the Project.

9. Progress of the Project Activities

- (1) [Output 1] Improvement of the existing solid waste disposal facility and operation in Vava'u (by Mr. Manase Malua, Health Inspector, MoH Vava'u)

The Chairperson, Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC thanked Mr Malua for the presentation and opened the floor to the members of the committee for further comments and/or questions.

Dr Raynold Ofanoa, Chief Medical Officer, MoH thanked Mr Malua for the presentation and added that the recruitment of additional staff is underway but found it difficult to attract applicants.

Mr Faafetai Sagapolutele, Assistant Chief Advisor, J-PRISM commented by suggesting that MoH should consider changing the post title in order to attract potential applicants.

The Chairperson, Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC mentioned that the comparison between the Waste Authority Ltd. (hereinafter WAL) system and Vava'u system would be useful. He also raised that the financial sources should be secured for sustainable landfill management.

Ms. Sonia of WAL explained the outlines of plastic imposed tax and environmental tax.

Ms. Yurie Sakai of JICA Expert mentioned that some options for financial sources are included in the Vava'u SWM Plan, including environmental tax. She also suggested that the necessary cost required for Kalaka landfill management needs to be amended according to the current landfill management system which is carried out in cooperation with Ministry of Infrastructure.

Ms. 'Ofa of Gio Recycling, explained that the purchase price of aluminum can has been decreased from 60 c per kg to 40 c per kg while steel has no value.

The Chairperson, Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC thanked the members of the committee for the positive feedback and invited the next presenter to continue with the presentation.

(2) [Output 2] Improvement of solid waste collection service in Vava'u (by Ms. Mele Finau, MEIDECC, Vava'u)

The Chairperson, Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC thanked Ms Finau for the presentation and invited comments and/or questions from the members of the committee.

Mr Shoichi Iwata, Project Coordinator, JICA Tonga Office commended on the achievements especially with the community collection system and highlighted the importance of ensuring that the work achieved is sustained in the future.

Ms Mafile'o Masi, Senior Environmentalist, MEIDECC commended that the budget allocation required to continue the project activities is estimated at TOP\$13,000 per annum. A small portion compared to the good work achieved at the end.

The Chairperson, Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC commented that MEIDECC could increase their budget allocation to assist the Project to TOP\$20,000 to ensure Project sustainability.

Mr Malakai Lomu, CEO of WAL congratulated the Project and how he's impressed with the Project achievements especially with the community collection system and it is something that Tongatapu can definitely learn from.

Ms 'Ofa Tu'ikolovatu, Managing Director, GIO Recycling congratulated the Project for doing a good job with community collection and the awareness programme and how GIO Recycling works together with the Project Team from the beginning to promote waste minimization and will continue to do so in the future.

The Chairperson, Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC thanked the members of the committee for the positive feedback and invited the next presenter to continue with the presentation.

(3) [Output 3] Establishment of framework and system for long term solid waste management in Vava'u (by Ms. Feauini Laumanu, Co-Project Manager, MEIDECC, Vava'u)

The Chairperson, Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC thanked Ms Lau-manu for the presentation and invited comments and/or questions from members of the committee.

With no further comments from the members of the committee, the Chairperson, Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC highlighted the Vava'u Development Committee should be included for implementation of Vava'u Solid Waste Management Plan and the importance of strong commitment from Government, relevant stakeholders and private sectors in ensuring that the Project activities are sustained in the future.

10. Summary of the overall project and Way forward (by Ms. Yurie Sakai, J-PRISM Expert)

Ms. Yurie Sakai, J-PRISM Expert, presented 5 years history of J-PRISM Tonga, (1) results of Terminal Evaluation, (2) Recommendations for the remaining period by the Terminal Evaluation Team and the Progress of recommended activities and (3) Successful and Inhibiting Factors and Recommendations for way forward.

(1) Degree of achievement and factors of successful/unsuccessful results

Terminal Evaluation Results of J-PRISM Tonga

Goals	Indicators	Result	Evaluation
Overall goal (in 2019)	1. Kalaka landfill has been properly operated 2. All households in Vava'u have access to garbage collection system	not evaluated yet (to be evaluated in 2019)	
Project Purpose	1. 6 of experts (Trainers) listed in the	1. 5 trainers	Mostly

		SPREP inventory 2. More than 50% of target communities operate and maintain the garbage collection system with a minimum support from the government	2. 80%	achieved
Output	Output 1	1-1 The existing dumpsite is rehabilitated 1-2 Rehabilitated landfill is operated in accordance with operation manuals	1-1 Fully rehabilitated in Feb. 2013. 1-2 It has not been fully operated in accordance with operation manuals	Mostly achieved
	Output 2	2-1 Collection service is provided according to the schedule (plan) 2-2 More than 80% of total households in Vava'u have access to garbage collection system	2-1 Community-based garbage collection system has been implemented as planned 2-2 Approx. 50% of all households in Vava'u have access to the system	Mostly achieved
	Output 3	3-1 Solid Waste Management (SWM) Plan 3-2 Meeting or workshop for Vava'u SWM Committee is held annually at least	3-1 The Plan was finalized in Jul. 2015, and will be endorsed at the 5 th JCC. 3-2 The workshops were held almost every year.	Mostly achieved

(2) Recommendations for the remaining period by the Terminal Evaluation Team and the Progress of recommended activities

At the end of the terminal evaluation, counterpart organizations were recommended to do some specific works/activities. The progress of recommended activities by each organization was presented during the JCC meeting.

Progress of recommended activities by each organization

Organization	Recommendations	Progress and Implementation Schedule
MEIDECC	<ul style="list-style-type: none"> To finalize the Solid Waste Management Plan in time prior to the JCC in November 2015. To endorse the Plan at the JCC meeting To put the Plan into action as scheduled by the concerned agencies. To continue securing a funding for garbage collection system, as well as CSP. To examine the funding mechanism, such as imposing the environmental tax, etc. in order to implement solid waste management plan. 	<ul style="list-style-type: none"> The continuous delay in the endorsement of the Vava'u Solid Waste Management Plan has caused concern and it was recommended by the JCC that the Plan should be submitted to the Committee to be endorsed before the end of the Project early 2016.
MoH	<ul style="list-style-type: none"> The C/P person in charge of Kalaka Landfill should follow up regularly to inspect the current situation and to maintain the site as well report to the main office. To allocate additional staff to ensure the proper operation and maintenance of Kalaka landfill. To continue securing necessary budget for Kalaka landfill and solid waste management in Vava'u. 	<ul style="list-style-type: none"> MoH has allocated a replacement for Mr Manase Malua, Public Health Inspector, MoH, Vava'u. MoH is currently working on the recruitment of additional staff to oversee and manage the Landfill. The delay of the recruitment has caused problems especially with the proper management of the Landfill.
MEIDECC/MoH	<ul style="list-style-type: none"> It is identified that the community-based system is well set up through Town officers, Youth leaders, as well village committees. With these outstanding models, the result can be utilized in other outer islands as model to be followed. 	<ul style="list-style-type: none"> MEIDECC is working together with WAL to adopt the community-based system especially in the rural communities on the mainland. MoH has indicated that the same principle could apply to other Outer Islands.

(4) Successful and inhibiting factors and way forward

Factors of successful/unsuccessful results

Successful factors	Inhibiting factors*	Countermeasures to be considered
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Project Purpose	<p>1) The Project provided many opportunities to CPs to become trainers and/or resource persons for trainings/workshops held in Vava'u during the Project period.</p> <p>2) J-PRISM Project Office provided opportunities to Vava'u CP to attend trainer's trainings.</p>	<p>1) Turnover of counterparts and leaders of communities is one of the reasons why the indicator was not achieved.</p>	
Output 1	<p>1) Strong ownership and capacity development of MoH CP</p> <p>2) Appropriate landfill management methods introduced</p> <p>3) Strong commitment of MoH main office</p> <p>4) Cooperative relationship with stakeholders</p> <p>5) Synergy effects made with other project activity</p>	<p>1) Shortage of staff at the landfill site might have contributed to insufficient monitoring of the site</p>	<p>1) Increase of the number of the Health Inspectors and share the works, or allocation of additional staff for Kalaka</p>
Output 2	<p>1) Appropriate system was introduced.</p> <p>2) Implementation process to ensure the system to be taken root.</p> <p>3) Efforts to foster the ownership/initiative of community</p> <p>4) Strong ownership of MEIDECC/MoH CP</p> <p>5) Strong commitment of MEIDECC main office.</p> <p>6) Synergy effects made with other project activity.</p>	<p>1) Difficulty to apply the system into the town area</p> <p>2) Difficulty to force communities to implement Hiko VEVE</p> <p>3) Lack of commitment of Town Officers and VEVE Committee</p>	<p>1) Outsourcing to private company can be one of the options for town area.</p> <p>3) It is preferable that Governor's Office (through MIA) could follow up District/Town Officers.</p>
Output 3	<p>1) Efforts for building consensus among stakeholders through Vava'u Solid Waste Management Committee Workshop and JCC meetings</p> <p>2) Establishment of a cooperative framework with relevant organizations.</p>	<p>1) Delay of finalization of Vava'u SWM Plan</p>	
Common	Communication between main offices and offices in Vava'u		<p>1) Need to review and amend current Waste Management Act</p> <p>2) It is preferable to establish a "National Task Force" to oversee waste management in the whole country incl. Vava'u Islands.</p>

10. Comments

1) Mr. Hiroshi Kikawa (Resident Representative of JICA Tonga Office)

Mr Hiroshi Kikawa, Resident Representative of JICA Tonga Office, highlighted the importance for the Project counterparts to follow through the operational manual produce by the Project. Mr Kikawa acknowledged his appreciation towards the MOH for increasing their budget allocation for the operation of Kalaka landfill. He also acknowledged the tremendous support as seen by the increasing numbers of stakeholders involved in the Project

over the years. Last but not the least, Mr Kikawa acknowledged his gratitude for the positive outcome of the Project and pointed out that local counterparts can now be local experts in the field of waste management.

2) Mr. Faafetai Sagapolutele (J-PRISM Assistant Chief Advisor)

Mr Faafetai Sagapolutele, J-PRISM Assistant Chief Advisor, congratulated Team Tonga as one of the top best team in the Pacific region in all J-PRISM Projects. Mr Sagapolutele highlighted "Teamwork" of the Tonga Team and the differences shown from the starting of the Project in 2011 to 2015, where he witnessed huge improvements to waste management in Vava'u. He also acknowledged the collaborations and contributions made by the Project counterparts.

11. Closing remarks by Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC

Hon. Siaosi Sovaleni, DPM and Minister of MEIDECC acknowledged the huge achievements of the Project with limited fund and resources. Hon. Sovaleni noted that the lessons learned from the Vava'u Project would be a foundation for future waste management in Tonga. He was also impressed with the community ownership initiatives as well as the commitment from JICA, MOH, MEIDECC and other relevant stakeholders. Lastly, Hon. Sovaleni emphasized the importance of sustaining the Project through continuous collaboration and partnership with other agencies and private sector.

Meeting Closed at 02:30 pm

Appendix 1: List of Participants (25)

Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC)

Hon. Siaso Sovaleni	Minister of MEIDECC
Mr. Paula Ma'u	Project Director Chief Executive Officer
Ms. Mafie'o Masi	Counterpart of the Project Senior Environmentalist
Ms. Feauini Laumanu Energy Planner	Co-Project Manager of the Project
Ms. Mele Finau	Counterpart of the Project Environment Officer
Ms. 'Anaseini Lataimaumi	Administration Assistant
Ms. Chie Hattori	JICA Volunteer for MEIDECC

Ministry of Health

Hon. Saia Piukala	Minister of Health
Dr. Raynold 'Ofanoa	Counterpart of the Project Chief Medical Officer
Ms Sela Fa'u	Counterpart of the Project Senior Health Public Inspector
Mr. Manase Malua	Counterpart of the Project Health Inspector

Governor's Office

Mr. Leinolo Lakai	Senior Assistance Secretary Vava'u Governor's Office
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Relevant Ministries and Organizations

Mr. Malakai Lomu Sika	Chief Executive Officer Waste Authority Ltd
Ms. Sonia Chirgwin	Waste Authority Ltd
Ms. 'Ofa Tu'ikolovatu	Chief Executive Officer GIO Recycling
Mr. Nick Lavemaau	Ministry of Finance
Mr. Koko Bruno	Ministry of Tourism Vava'u OIC
Mr. Peni Lakai	Ministry of Education and Training Vava'u OIC
Mr. Pesalili Tuiano	Ministry of Infrastructure Acting CEO

Ms. Sapate Ministry of Infrastructure
Vava'u OIC

JICA Expert for J-PRISM

Ms. Yurie Sakai JICA Expert
Kokusai Kogyo Co. Ltd

J-PRISM Project Office Samoa

Mr. Faafetai Sagapolutele Assistant Chief Advisor

JICA Tonga Office

Mr. Hiroshi Kikawa Resident Representative

Mr. Shoichi Iwata Project Coordinator

Alfred Vaka Programme Officer

4 Capacity Assessment

4.1 Fiji

Report of the Capacity Assessment for the Project for the Promotion of Regional Initiatives on Solid Waste Management (J-PRISM)

1. Objective

The objective of J-PRISM is: “Human and institutional capacity base for sustainable solid waste management in the Pacific Region is strengthened through implementation of the Pacific Regional Solid Waste Management Strategy (2010-2015)”. Therefore, the aim of the Capacity Assessment (CA) is to ensure that the individual and organisational capacities of the various Project counterparts are accurately assessed at the outset of the Project, to accurately ascertain progress in achieving this stated objective.

Individual and organizational capacity assessments were conducted two times during Project period, as shown in the table below.

Table 1: Timing and assessment period of the first and second capacity assessments

	Timing of CA	Period to be assessed
1st assessment	July 2014	July 2011 – July 2014
2nd assessment	July 2015	Aug 2014 – Jun 2015

2. Preparation of Capacity Assessment Questionnaire Sheets

Two capacity assessment questionnaire sheets were formulated, one for Department of Environment (DoE) counterparts and one for local council counterparts, as each has different capacity development objectives under the Project. The questions were based on expected capacities to be developed through Project activities as outlined in the project design matrix (PDM) and plans of operation (POs) of the various Project counterpart organisations.

The questionnaire sheets were developed in cooperation with DoE West counterparts (who are responsible for monitoring of council 3R activities in the Western Division) based on the previous experience of both sides in conducting capacity assessments and in reference to various other similar JICA project capacity assessments. Furthermore, extensive consultation was held with the various council counterparts in the course of Project activities, as well as formally in the bimonthly J-PRISM meeting.

3. Implementation of Capacity Assessment

3.1 Self-assessment

The interviews consisted of both individual and group interviews to ascertain individual and organisational capacities. Effort was made to ensure that all members of each counterpart who are engaging 3R activities were present in the group discussion interviews so as to obtain consensus amongst the entire team. Management level counterparts—such as the acting director of DoE, the CEOs of STC, RTC and BTC (incl. C/Ps) and special administrators of NTC and RTC—were also interviewed to gain a better understanding of the organisation’s capacity for implementation of 3R activities.

The individual interviews and group discussions each took a minimum of thirty minutes respectively, with some taking considerably longer as the counterparts were in no way restricted as to how much they wished to share regarding their experiences and thoughts on each capacity assessment question.

The following table lists all of the counterparts interviewed in either the first or second, or both, capacity assessments.

Table 2: List of Target Counterparts for the Capacity Assessments

No.	City	Institution	Name	Position	1 st CA	2 nd CA
		DoE				
1	Suva	DoE WPU	Ms Laisani Lewanavanua	Senior Environment Officer	○	○
2	Suva	DoE WPU	Ms Mere Leba	Environment Officer	○	○
3	Suva	DoE WPU	Ms Laisa Matagi	Technical Officer		○
4	Suva	DoE WPU	Ms Mere Komailevuka	Environment Officer	○	
5	Lautoka	DoE West	Ms Senivasa Waqairamasi	Senior Environment Officer	○	○
6	Lautoka	DoE West	Ms Kelera Tokalau	Environment Officer	○	○
7	Lautoka	DoE West	Mr Sakenasa Namisi	Technical Assistant	○	○
		COUNCILS				
8	Lautoka	LCC	Mr Gyneshwar Rao	Director (Department of Health)	○	○
9	Lautoka	LCC	Mr Rouhit Singh	Manager (Department of Health)	○	○
10	Lautoka	LCC	Mr Shalend P Singh	Senior Health Inspector (Department of Health)	○	○
11	Lautoka	LCC	Mr Wally Pauu	Health Inspector (Department of Health)	○	○
12	Lautoka	LCC	Mr Mithun Prasad	Health Inspector (Department of Health)	○	○
13	Nadi	NTC	Mr Rajeshwar Raj	Health Inspector	○	○
14	Nadi	NTC	Ms Nafiza Ali	Health Inspector	○	○
15	Ba	BTC	Mr Dip Narayan	Chief Executive Officer (CEO)/Senior Health Inspector	○	○
16	Ba	BTC	Ms Ronika Mishra	Health Inspector		○
17	Ba	BTC	Mr Hiren Pillay	Head Gardener/Landscaper		○
18	Sigatoka	STC	Mr Tulsi Ram	Chief Executive Officer (CEO)/Senior Health Inspector (1 st CA: CEO of TTC)		○
19	Sigatoka	STC	Ms Eseta Leawere	Senior Health Inspector	○	
20	Sigatoka	STC	Mr Ashnil Sharma	Health Inspector	○	○
21	Tavua	TTC	Ms Temalesi Henfiro	Chief Executive Officer (CEO)		○
22	Rakiraki	RTC	Mr Rakesh Chandra	Chief Executive Officer (CEO)/Senior Health Inspector		○
23	Rakiraki	RTC	Ms Emi Balemaiwai	Project Officer	○	
24	Suva	SCC	Mr Naresh Narayan	Senior Health Inspector	○	○
25	Suva	SCC	Mr Robert Randolph	Senior Assistant Health Inspector	○	○

3.2 Expert assessment

It was decided that in addition to the self-assessments by counterparts, the expert team members would also make an assessment of each counterpart and organisation's capacity with regard to each of the skills needed to implement the respective project activities. This was deemed necessary because, while every effort was made in the interviews to mitigate any individual bias in the self-assessments, various factors not least the various characters of the counterparts tended to limit the extent to which comparisons could be extracted from the data.

The J-PRISM experts, having had several years first-hand experience working closely with the

counterparts in implementing the Project 3R activities, were considered suitable for making an objective evaluation of C/P capacity. Where the expert has had minimal interaction with the counterpart organisation, the expert was omitted from expert assessment (see table below). Due to the fact that the experts had varying degrees of interaction with each of the counterparts, it was considered appropriate to use an average of the experts' scores to analyse each capacity.

Table 3: Counterpart organisations assessed by each expert

J-PRISM Expert	Counterpart organizations assessed by each expert								
	DoE WPU	DoE West	LCC	NTC	STC	BTC	RTC	TTC	SCC
Ms Yurie Sakai (Team leader/Waste Management F)	○	○	○	○	○				
Ms Keiko Kani (Waste Management B)	○					○	○	○	○
Mr James McLean (Capacity Assessment/Monitoring)	○	○	○	○	○	○	○	○	○

Moreover, to accurately assess the counterpart capacities certain counterparts (for whom the CA expert had insufficient recent first-hand knowledge of their 3R implementation capacity), the CA expert accompanied the counterparts in the field, ideally to observe them conducting their regular 3R activities. Among the numerous skills assessed at this time, an important skill was how well the counterpart explained and interacted with the various stakeholders while going about their tasks. The following photos are included to give an idea of how the 2nd Capacity Assessment was actually implemented.

Figure 1: Photos of the 2nd CA implementation



Group discussion at LCC



TTC C/Ps and CA expert visiting a CSP school



Robert (right) of SCC conducting compost training for JOCV volunteers from Lami and Nasinu

3.3 Feedback

J-PRISM 3R activities are being implemented based around a *plan-do-check-act* strategy. This Capacity Assessment is a valuable tool in accomplishing the *check* phase of this cycle. The interviews, group discussions and report are effective for checking on the progress of Project 3R activities, however, to effectively tie this evaluation process into concrete action one further step was deemed necessary. The CA expert revisited –all of the counterpart councils and DoE offices to discuss the findings of the CA report relevant to their organisation to gain their feedback. The results of this CA report for each organisation were sent to all counterparts in advance and then discussed in person using colour (to clearly show radar chart results) printouts of the applicable results. The aim of these discussions was to positively reinforce the good practices and constructively discuss ways of improving those aspects identified by the C/Ps as being weaknesses. That is, action based on positive reflection.

Capacities assessed

Table 4 below outlines the main categories of interview questions according to Project activity. All of these questions directly relate to capacities that are expected to be developed under J-PRISM activities. Activities 1.1 through to 2.3 for both DoE and councils are outlined in the project design matrix, while B.1 and B.2 relate to organisational capacities that are expected to be developed through the course of the Project. As mentioned previously, questions differed between councils and DoE due to differences in anticipated capacities to be developed in the Project and in the organisational objectives and nature of each.

Table 4: Capacities assessed in DoE and council interviews according to activity number

Activity	Expected capacity to be obtained through project activity
Individual:	
Activity 1.1	To prepare a national framework to promote 3Rs
Activity 1.2	To conduct training for 3R action
Activity 1.3	To implement 3R activities based on action plans
Activity 1.4	To monitor the progress of 3R implementation
Activity 2.1	To develop training programs on 3Rs for other councils in Fiji/Pacific Island countries
Activity 2.2	To conduct training programs
Activity 2.3	To improve the training programs
Organisational:	
B.1	To have the capacity to implementation the National 3R Strategy
B.2	To conduct training program(s) on 3R.

4. Results

As a general indicator of overall organisational capacity of each of the counterpart organisations, the overall average capacity scores (average of combined individual and organisational question responses of all counterparts at each organization) prove to be accurate to a certain extent.

Moreover, the fact that the expert evaluation of all of the counterpart organisations, besides STC (which remained the same on 4.5; possibly because the main C/P left STC just after the 2nd CA interviews, in late July 2015), have increased (from 1st to 2nd CAs), is a reflection of the positive progress made all around.

Table 5: Average expert and self-assessment scores of DoE counterpart organisations in the first and second capacity assessments

Organisation	Rank				Overall Average Capacity Score (out of 5.0)			
	1 st CA		2 nd CA		1 st CA		2 nd CA	
	Self	Expert	Self	Expert	Self	Expert	Self	Expert
DoE West	1	1	1	1	4.1	3.1	4.6	3.6
DoE WPU	2	2	2	2	3.6	3.0	4.0	3.3

Table 6: Average expert and self-assessment scores of each counterpart council in the first and second capacity assessments

Organisation	Rank				Overall Average Capacity Score (out of 5.0)			
	1 st CA		2 nd CA		1 st CA		2 nd CA	
	Self	Expert	Self	Expert	Self	Expert	Self	Expert

Nadi TC	1	1	1	1	4.9	4.5	5.0	4.6
Lautoka CC	2	2	2	3	4.6	4.0	4.9	4.2
Ba TC	6	5	2	4	3.5	3.2	4.9	3.6
Suva CC	4	3	4	2	4.0	3.8	4.7	4.5
Tavua TC	5	6	4	7	3.6	2.9	4.7	3.1
Sigatoka TC	3	4	6	5	4.5	3.5	4.5	3.5
Rakiraki TC	7	7	7	6	3.3	2.5	4.2	3.2

4.1 Rankings

4.1.1 Department of Environment

In the above Table 2, the Waste and Pollution Unit of the Department of Environment (DoE WPU) is ranked below DoE West, in both the self-assessed and expert rankings (while the expert scores for the two DoE offices are much closer than the self-assessed average scores). DoE WPU is a team specifically dedicated waste and pollution issues and policy development, and planning and budget allocation for solid waste management including the 3Rs at the national level. DoE WPU C/Ps, unlike their council counterparts, have not engaged in 3R activities in the field, therefore their responses in regards to understanding level for implementation of 3R activities are relatively low. Also, DoE WPU seems to know their limitations of organizational capacity and to have been quite humble in their replies to the interview questions. Meanwhile, DoE West has had more opportunity to get to know the progress and issues of 3R activities which have been implemented by councils through the J-PRISM meetings (previously monthly or bi-monthly; quarterly as of 2nd CA) and through its monitoring activities of council 3R activities. The above reasons can all be factors influencing the capacity assessment results.

4.1.2 Councils

The self-assessment rankings of the councils are generally considered to be quite accurate; and are mostly in line with those of the experts. A general trend apparent from these rankings is the general high capacity of the relatively larger councils, Nadi, Suva and Lautoka. Meanwhile, the smaller councils with fewer human, budgetary and physical resources are generally ranked lower, both self and expert.

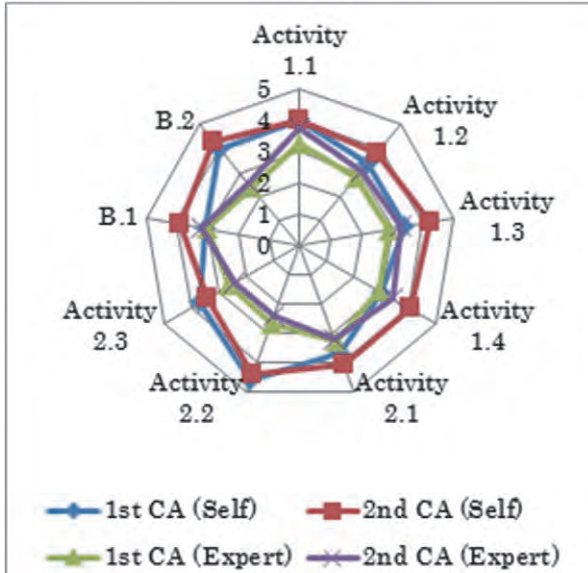
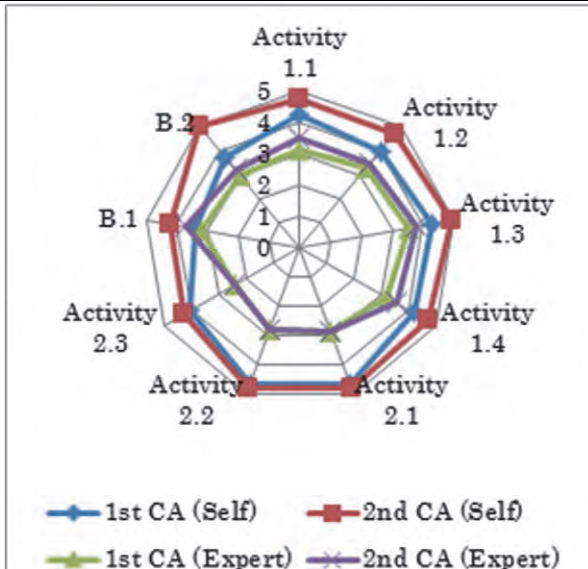
There is some deviation apparent between self-assessment and expert rankings and averages. Suva City Council (SCC) ranks itself below the experts for both 1st and 2nd CAs. On the other hand, Tavua Town Council ranks itself much higher than the experts in the 2nd CA. This high self-appraisal—while having made some significant progress—is not regarded as entirely accurate in the opinion of the experts.

4.2 Radar charts of score averages

4.2.1 Department of Environment (WPU, West)

The following radar charts and tables show the averages of C/P and expert responses in the first and second capacity assessments for the Waste and Pollution Unit and Western Division office of the Department of Environment.

Table 7: Radar charts and tables depicting C/P and expert response averages in 1st and 2nd CAs for DoE WPU and DoE West

Radar chart of DoE WPU's assessment (self and expert) averages by activity	Table of DoE WPU's score averages by activity																																																							
 <p>1st CA (Self) 2nd CA (Self) 1st CA (Expert) 2nd CA (Expert)</p>	<table><tr><th></th><th colspan="2">1st CA</th><th colspan="2">2nd CA</th></tr><tr><th>Activity</th><th>C/P Ave.</th><th>Expert Ave.</th><th>C/P Ave.</th><th>Expert Ave.</th></tr><tr><td>A1.1</td><td>4.1</td><td>3.2</td><td>4</td><td>3.7</td></tr><tr><td>A1.2</td><td>3.4</td><td>2.8</td><td>3.8</td><td>3.1</td></tr><tr><td>A1.3</td><td>3.4</td><td>2.9</td><td>4.2</td><td>3.3</td></tr><tr><td>A1.4</td><td>3</td><td>2.9</td><td>4.1</td><td>3.4</td></tr><tr><td>A2.1</td><td>3.7</td><td>3.3</td><td>4.1</td><td>3.2</td></tr><tr><td>A2.2</td><td>4.6</td><td>2.7</td><td>4.4</td><td>2.4</td></tr><tr><td>A2.3</td><td>3.7</td><td>2.6</td><td>3.4</td><td>2.4</td></tr><tr><td>B.1</td><td>3.1</td><td>3</td><td>3.9</td><td>3.2</td></tr><tr><td>B.2</td><td>4</td><td>2.4</td><td>4.3</td><td>2.6</td></tr></table>		1 st CA		2 nd CA		Activity	C/P Ave.	Expert Ave.	C/P Ave.	Expert Ave.	A1.1	4.1	3.2	4	3.7	A1.2	3.4	2.8	3.8	3.1	A1.3	3.4	2.9	4.2	3.3	A1.4	3	2.9	4.1	3.4	A2.1	3.7	3.3	4.1	3.2	A2.2	4.6	2.7	4.4	2.4	A2.3	3.7	2.6	3.4	2.4	B.1	3.1	3	3.9	3.2	B.2	4	2.4	4.3	2.6
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Strengths

Overall, similar trends are found in the 1st and 2nd CAs. In the last year WPU has implemented national subsidy programs for home composting and clean school programs (although individual responses show the C/P still (humbly) regard themselves as having room to improve in this regard (see weak points)). Meanwhile, DoE West has made significant progress in facilitating council cooperation and communication through regularly holding J-PRISM (quarterly) meetings. This combined with the councils increased submission of monitoring sheets has allowed both DoE teams to gain a greater understanding of council 3R activities. Therefore, both WPU and DoE West can be considered to have made praiseworthy progress over the last year.

DoE WPU ranked themselves high overall, with at least one of the team (particularly Ms Laisani Lewanavanua) having strength in all of the capacities besides those weak points

mentioned below, in a similar trend to that in the 1st CA. The highest scores (all of which at least two of the three C/Ps ranked five) in the following capacities to:

- identify SWM issues (Activity 1.1, Q4)—same as 1st CA; experts generally agreed
- organise regular meetings for monitoring 3R progress (A1.4, Q1)—increased since 1st CA; experts generally agreed
- identify resource persons for conducting 3R training (A2.1, Q6)—same as 1st CA; experts generally agreed
- explain 3R activities to trainees (A2.2, Q1)—increased since 1st CA; experts assessed lower

While organizationally DoE WPU rated its capacity high to:

- recognise the need for a national 3R strategy (B1, Q1)—same as 1st CA; experts generally agreed
- have a clearly assigned unit and responsibilities for 3R promotion (B1, Q2/3)—same as 1st CA; experts generally agreed
- have a plan for 3R implementation (B1, Q4)—increased (from 3 to 5) since 1st CA; experts assessed lower (3)

There were two instances (both in the 2nd CA) whereby the experts assessed the WPU counterparts, particularly Ms Lewanavanua, higher than the self-assessments (which was very uncommon throughout both CAs). These were:

- capacity to set goals and indicators (A1.1, Q12)
- knowledge of status of councils' 3R activities

Meanwhile, **DoE West** ranked themselves very highly in every response besides those weaknesses mentioned below. DoE West has shown a marked improvement since the first capacity assessment. This is both apparent in the questionnaire responses (both self and expert) as well as the verbal responses in both DoE West's interview as well as those of numerous council counterparts (many of whom praised DoE West's proactive stance towards organising JPRISM meetings and training sessions (i.e. April 2015 CSP and home compost training), and facilitating communication and cooperation at these events). In fact, the experts assessed this aspect (A1.4, Q1, ability to organise meetings regularly) higher than the C/P. Moreover, this observed proactive attitude change shows through in an overall increase in response values, but particularly in *B.2 Organisational capacity for conducting training* (average increased from 3.7 to 5). However, as was the case in the first CA, DoE West has a tendency to rate themselves higher compared to some other counterpart organisations.

Weaknesses and challenges

Overall, the weakest ranked area for both DoE offices, lack of human and physical resource, stands out in both the 1st and 2nd CAs (self and expert assessed). The number of low scoring expert assessments was much less in the 2nd CA. There was greatest divergence between self and expert assessment (generally lower on the part of experts) for questions in activities 2.1, 2.2 and 2.3 for DoE West, and 2.2 in particular for WPU. DoE has not been active in regards to Output 2—developing, conducting and evaluating training—in the latter half of the Project (the last two years), making it difficult to assess such aspects. Otherwise, the areas of expert and self-assessed weakness were generally the same.

There were several questions that all three **DoE WPU** counterparts assessed lowly, namely, capacity to:

- develop national framework/programs to promote council 3R activities (A1.1, Q11)—this is regarded as rather humble by the experts based on the progress made implementing the nationwide home composting and CSP subsidy programs; however, in the interview Ms Lewanavanua expressed frustration at how long the new National Waste Management Strategy is taking to develop, which may be the main reason behind this low self-appraisal
- evaluate and revise 3R training programs (A2.3, Q1/2)—same as 1st CA and expert assessment

Meanwhile, DoE WPU and the experts assessed organizational capacity low in regards to:

- human, budgetary and material resources for 3R implementation (B1, Q 5-7)—same as 1st CA

DoE West's responses are remarkable for their lack of low scoring responses in the 2nd CA. Only two organisational capacities, human resources and establishment of a 3R monitoring system (ranked three), remained low from the previous CA, while all of the other weaknesses, such as lack of understanding of council 3R activities, had improved. There were some moderately low responses where all three counterparts scored four, namely capacity to:

- make an implementation schedule for 3R activities (A1.1, Q14)—same score by experts, but not low respectively; decrease by one C/P since 1st CA
- evaluate 3R training programs (A2.3, Q.1)— same as 1st CA; experts agreed

And organizationally:

- 3Rs assigned to a particular department (B1, Q2)—same score by experts, but not low respectively; no change since 1st CA
- sufficient budget and material resources (B1, Q6/7)—Q6 same in 1st CA and by experts; Q7 increased from 1 to 4 and 2 to 3 (self/experts respectively)
- recording and reporting system of 3R activities to top management (B1, Q9)—both increased, but greater increase by experts

The expert assessments for individual capacities were generally the same or lower as the self-assessment. Despite this, most areas were assessed by the experts as showing some improvement over the 1st CA results.

Feedback from DoE WPU – Ms Laisani Lewanavanua (Senior Environment Officer)

- Need more experience holding regional training – only once so far; very limited involvement of regional training conducted by J-PRISM compared to council counterparts such as LCC/NTC
- Staff situation major issue; vacant posts at the Department of Environment; as for Waste Management and Pollution Control Unit there is a need for dedicated officers for each SWM specialty, i.e. 3R officer, landfill officer; under the consultancy for drafting a 10-year national integrated waste management strategy, DoE, through the consultant will conduct a gap analysis of the unit to ascertain staffing needs.
- Need to define strategic way forward (policy) for integrated waste management in Fiji; vital for making decision such as is Nadi's request for development of new landfill, or should there be a regional landfill for the whole Western Division, etc. Several WPU/DoE initiatives expected to improve this situation (that are currently under tender): Consultant to devise national waste management strategy (terms of reference

includes gap analysis of WPU); Feasibility study for waste management authority; Feasibility study for national waste management system master plan; Transfer station design

- Rural areas – challenge to enforce litter decree; need to collaborate with Ministry of Health
- Monitoring vital; J-PRISM template very useful, applicable to all SWM issues not only 3R progress; need to ensure all councils submit regularly

Feedback from DoE West – Ms Senivasa Waqairamasi (Senior Environment Officer)

Strengths:

- Coordination and networking capacity of DoE with (council, etc.) counterparts; organising of platforms for dialogue such as regular J-PRISM meetings and CSP/home compost subsidy program launching training
- Ability to work under pressure and arrange logistics (i.e. of regular J-PRISM meetings)
- Personal touch and strong relationship with counterparts enables stronger collaboration and mutual progress

Weaknesses & Challenges:

- Need to strengthen monitoring capability and prioritization of work
- Facilitating timely report submission; e.g. Monitoring Template from counterparts
- Lack of dedicated SWM/3R officer/desk officer for the project based at DoE and DoE West (staff have to balance current responsibilities with project work)

Solutions:

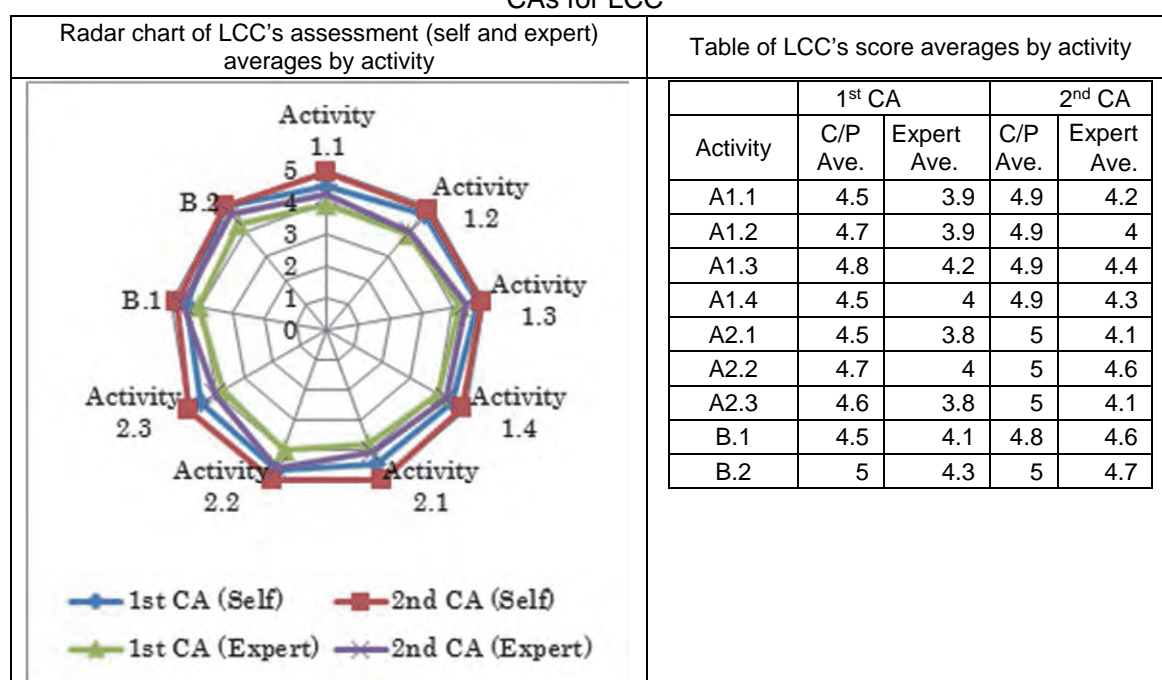
- Find time between environmental impact assessment inspections to visit municipal councils to monitor their 3R/J-PRISM activities
- Encouraging councils to submit their monitoring reports and so on when visiting them in person (not just on phone/email)
- Strengthening of team work and greater effort towards achieving SWM/3R goals

4.2.2 Councils

4.2.2.1 Lautoka City Council (LCC)

The following radar chart and table show the averages of C/P and expert responses in the first and second capacity assessments for Lautoka City Council.

Table 8: Radar chart and table depicting C/P and expert response averages in 1st and 2nd CAs for LCC



Strengths

LCC shows a clear high—in both the first and second CAs—in B.2 Organizational capacity for conducting of training programs on 3Rs (only Q3, critical analysis of the training programs was assessed lower by the experts). The averages of individual scores for the developing, conducting and evaluating of 3R training programs did not show up as particularly high in the first CA. This is mostly down to the fact that this is the average of all four counterparts, some of whom lacked experience in such training aspects at this stage. This changed dramatically by the second CA with maximum scores, five out of five, for all three, namely activities 2.1, 2.2 and 2.3 (expert assessments were generally in agreement, mostly for 2.2, conducting of training). Such results clearly reflect the extensive experience the LCC team has in training numerous stakeholders including J-PRISM counterparts from other pacific countries, council staffs from other councils and school students.

As can be seen from the tables and radar charts of expert and self-assessed responses below, by the stage of the second CA, the LCC capacities for all sections was very high (besides the training sections detailed above, all individual sections averaged 4.9).

Weaknesses and challenges

In contrast to the first CA—where LCC had relatively lower scores in individual activities: 1.1, developing an action plan for implementation of national 3R strategy, 2.1, developing 3R training programs; and organisational: B.1, capacity to implement the national 3R strategy—the only lower average response (4.8, still very high comparatively) remained B.1. Specifically this equates to a self-assessed lack of resources, both human (question 5) and material (question 7). The experts' assessments were generally in agreement. LCC, as seen from the smaller councils, may seem to be organisationally much stronger, however the size of its municipality and the extent of tasks besides 3Rs demanded of LCC health department, are

reasons for the expert and self-assessed (relative; score of four) weakness of organisational capacity.

While the expert average for Activity 1.2 is ranked the lowest in Table 8 above, this is down to evaluation of training effectiveness (Q3), not actual training implementation ability. This was the only capacity that all four LCC C/Ps were rated lowly by the experts. The reason for this low evaluation is considered to be because the Project could not provide many opportunities for training evaluation.

Feedback from Lautoka City Council – All LCC counterparts involved in J-PRISM

Strengths:

- Sustainability is key; not over-relying on any one staff member; main expert is supported, task sharing to ensure dissemination of knowledge and experience throughout team
- Determination, commitment, perseverance and positive and proactive stance of council ensure success (even if takes time)
- Strong commitment of council to invest resources (human and physical and budget) to achieve SWM and 3R goals
- Overseas experience/knowledge of team members

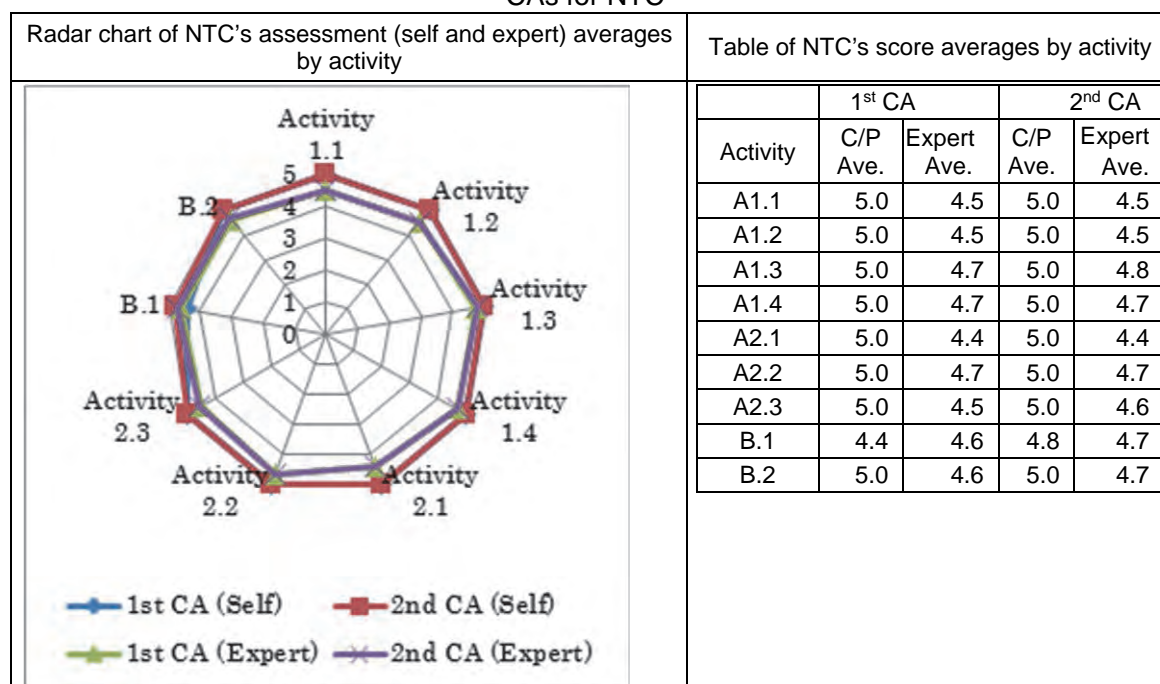
Weaknesses and solutions:

- Evaluation of training
 - Need to develop training evaluation form/system
 - Need to conduct follow-up assessment of trainees (i.e. 6 months after training) to assess actual use of newly learnt skills/knowledge
- Lack of computers in office; workers need to bring personal computers to work to record data, compile reports, etc.;
- Low market value of recyclables; possible solutions:
 - Container deposit legislation (CDL)
 - National government initiatives such as support of recyclers
- Need legislative disincentives to deter littering, encourage separation of waste, composting, etc.

4.2.2.2 Nadi Town Council (NTC)

The following radar chart and table show the averages of C/P and expert responses in the first and second capacity assessments for Nadi Town Council.

Table 9: Radar chart and table depicting C/P and expert response averages in 1st and 2nd CAs for NTC



Overall, the stand out factor for Nadi Town Council is the degree of consistently high—both self and expert—assessments between the first and second CAs. This consistency bodes well for the sustainability of 3R activities in Nadi.

Strengths

Nadi Town Council (NTC) has an extremely high self-assessment. As is the case with LCC above, NTC has been the recipient of significant training and technical transfer in the JICA 3R project starting in 2008, as well, of course, as the follow-up built upon this strong foundation throughout the J-PRISM project period, the invaluable experience the counterparts have gained through opportunities to give regional training, which have all combined to secure sound capacity at NTC. Therefore, Nadi's high level of self-assessment is considered appropriate, and is backed up, admittedly at a generally lower trend line, by the experts' evaluations. Another reason for NTC's organisational capacity being assessed so highly, by both the C/Ps and experts, is that the C/Ps at Nadi receive solid support from their top management—the CEO and Special Administrator. This in fact, is considered Nadi's strongest point.

Weaknesses and challenges

The only self-assessed weakness reported by NTC was in regard to system to organisational capacity, B.1. In fact, their responses to the questions in B.1 were exactly the same as for LCC. Specifically, they assessed their department as lacking in resources, both human (question 5) and material (question 7). Previously, in the first assessment, they assessed their budget (Q6) as being insufficient. In the team discussion on this matter, there was some disagreement, with the senior member, Mr Raj, reasoning that the total annual budget allocation as being sufficient. While it was pointed out there remains some difficulty obtaining budget for specific activities during the year, this was considered to be a resolvable issue so long as the overall (annual)

budget proves sufficient.

The experts assessed both counterparts three (as opposed to five by C/Ps) on two occasions; namely, in understanding of the National Solid Waste Management Strategy (2011-2014) and in ability to develop a waste stream. One of the counterparts, Mr Raj, was rated three by both experts (as opposed to five self-assessed) in his ability to develop a training program and training materials. The reason being, is that the majority of actual work to prepare for and conduct training is undertaken by the other NTC counterpart, Ms Nafiza Ali.

Feedback from Nadi Town Council – Mr Raj and Ms Ali (both health inspectors)

Strengths:

- Reporting system to top management—3R activity updates made monthly—facilitates strong support from management
- Top management, Special Administrator, shows ownership of 3R activities, evident when convincing other SAs to take part, showing commitment to help any other council or rural authority; also SA pushing to have 3R/CSP activities included in national school curriculum
- J-PRISM expert support and discussions with SA has been important factor in gaining support top management support
- Home composting: in addition to 30 bins from DoE, council has approved purchase of 50 additional bins (considered to be result of greater support from SA since launching of CSP national subsidy; SA pleased to see NTC initiative go national)
- Teaching in regional training has raised Ministry of Local Governments standing with recipient countries; positive for top managements' relationship with ministry

Weaknesses & Challenges:

- Extension of town boundary; population to double
- Need to strengthen human resources; Mr Raj and Mr Uday resigning
- Lack of participation by residents in recyclables collection (high turnover of tenants)
- National 3R Policy needs updating and greater awareness amongst citizens

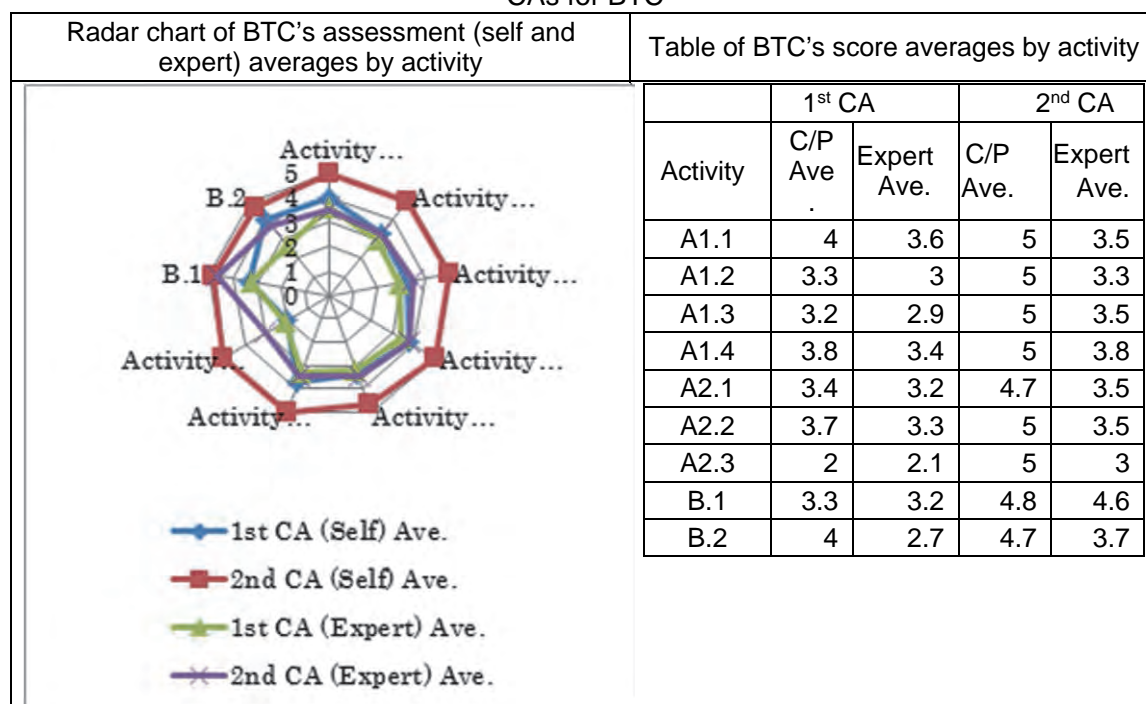
Solutions:

- Human resources: Ms Premila to return in January; more staff will be needed to cope with boundary extension (increased population, garbage/recyclables collection area)
- Awareness activities; increasing distribution of circulars from once to twice a year
- Strengthening of legislation to support National 3R Policy

4.2.2.3 Ba Town Council (BTC)

The following radar chart and table show the averages of C/P and expert responses in the first and second capacity assessments for Ba Town Council.

Table 10: Radar chart and table depicting C/P and expert response averages in 1st and 2nd CAs for BTC



First, a general explanation of the situation in Ba Town Council is necessary. As of the 1st CA Project activities were on hold due to only the CEO, Mr Dip Narayan, being available to implement 3R activities. The main two counterparts as of the 2nd CA, Ms Ronika Mishra (Health Inspector) and Mr Hiren Pirray (Head Gardener), resumed the market composting project around October 2014. The implementation system of the newly resumed market composting project is basically the same as previously, but the construction of a discharge place between the market and compost yard made it easier for collection workers to separate rubbish from vegetable waste in the separation bins, and this made it possible to minimize the awareness work, which used to be the biggest burden for C/Ps. In addition, the sharing of roles and responsibilities between the two counterparts enhanced the sustainability of the project. It is still too soon to accurately assess how successful or sustainable this new system is, but it is highly likely that BTC could continue the market composting by itself at an appropriate and sustainable scale, after J-PRISM finishes.

Strengths

BTC counterparts have assessed all of the organisational capacity questions very highly. Experts agreed with all but one question—B.2, Q3, critical analysis and improvement of 3R training—which increased from 3 to 5 and 2 to 3 in the self and expert assessments, respectively. BTC's responses to the questions in B.1 were exactly the same as for both NTC and LCC above. Even though they assessed their department as lacking in resources, both human (question 5) and material (Q7), for which the experts were in agreement, they overcame this weakness by utilizing resources of other departments as much as possible, when it is necessary. One organisational strength assessed by a Project expert is BTC's effective cooperation system and the sense of unity among departments.

Individual capacities were self-assessed very highly (average 5) for all of Activity 1 questions. While the self-assessments of one new C/P are regarded as being on the high side by the experts, they agree that the individual capacity for Activity 1 3R implementation has increased and is a strength at BTC as of the 2nd CA.

Weaknesses and challenges

In both capacity assessments BTC assessed its capacity with regards to training as lowest. This is not surprising as the aim of Project activities in BTC is to first improve their capacity to implement 3R activities. Once BTC has such a solid foundation, it can then progress into training. In fact, the expert considers the small-scale 3R activities in Ba to be a good example for other smaller councils, and hopes in future, once its program, particularly market composting, has had time to mature, it will be able to train other councils its lessons learnt.

Feedback from Ba Town Council – Ms Ronika Mishra, Health Inspector

Strengths:

- Intra-organisational cooperation: health department has many other tasks to undertake so cooperation from other council departments is vital; Buildings/ Engineering Dept. (Mr Unaiz Asum, Building Surveyor), Gardens Dept. (Mr Hiren Pillay, Head Gardener), Works Department (Mr Ramesh Kumar, Works Supervisor), Market Master (Mr Moh'd Shafiq) and their various workers and attachment staff help with market and home composting, CSP school monitoring, data collection and so on

Challenges:

- Human resources – lack of staff and already heavy workload for regular tasks
- CSP schools encouraged to recycle and separate waste and discontinue burning of waste, however neither recycling companies nor the council collect recyclables from the schools at present (one recycling company based in Lautoka makes infrequent trips to Ba for collection, but is not willing to collect from schools)
- Cost of solid waste collection contractor

Solutions:

- Strengthen collaboration
- Request JOCV
- Recyclables collection center under consideration (possible location near current market composting site within close proximity of supermarkets, commercial area, schools)
- Upgrade of dump site to hygienic landfill under consideration (considering inclusion of leachate treatment ponds, sectional disposal layout, access roads, etc.)

4.2.2.4 Sigatoka Town Council (STC)

The following radar chart and table show the averages of C/P and expert responses in the first and second capacity assessments for Sigatoka Town Council.

Table 11: Radar chart and table depicting C/P and expert response averages in 1st and 2nd CAs for STC

Radar chart of STC's assessment (self and expert) averages by activity	Table of STC's score averages by activity																																																							
<p>Activity 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, B.1, B.2</p> <p>1st CA (Self), 2nd CA (Self), 1st CA (Expert), 2nd CA (Expert)</p>	<table><tr><th></th><th colspan="2">1st CA</th><th colspan="2">2nd CA</th></tr><tr><th>Activity</th><th>C/P Ave.</th><th>Expert Ave.</th><th>C/P Ave.</th><th>Expert Ave.</th></tr><tr><td>A1.1</td><td>4.5</td><td>3.5</td><td>4.5</td><td>3.5</td></tr><tr><td>A1.2</td><td>4.5</td><td>3.2</td><td>4.0</td><td>3.3</td></tr><tr><td>A1.3</td><td>4.8</td><td>3.6</td><td>4.4</td><td>3.6</td></tr><tr><td>A1.4</td><td>4.4</td><td>3.4</td><td>4.5</td><td>3.6</td></tr><tr><td>A2.1</td><td>4.1</td><td>3.4</td><td>4.2</td><td>3.2</td></tr><tr><td>A2.2</td><td>4.5</td><td>3.5</td><td>4.8</td><td>3.9</td></tr><tr><td>A2.3</td><td>4.5</td><td>3.2</td><td>5.0</td><td>3</td></tr><tr><td>B.1</td><td>4.3</td><td>4.1</td><td>4.7</td><td>3.8</td></tr><tr><td>B.2</td><td>4.5</td><td>3.5</td><td>4.5</td><td>3.5</td></tr></table>		1 st CA		2 nd CA		Activity	C/P Ave.	Expert Ave.	C/P Ave.	Expert Ave.	A1.1	4.5	3.5	4.5	3.5	A1.2	4.5	3.2	4.0	3.3	A1.3	4.8	3.6	4.4	3.6	A1.4	4.4	3.4	4.5	3.6	A2.1	4.1	3.4	4.2	3.2	A2.2	4.5	3.5	4.8	3.9	A2.3	4.5	3.2	5.0	3	B.1	4.3	4.1	4.7	3.8	B.2	4.5	3.5	4.5	3.5
	1 st CA		2 nd CA																																																					
Activity	C/P Ave.	Expert Ave.	C/P Ave.	Expert Ave.																																																				
A1.1	4.5	3.5	4.5	3.5																																																				
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A1.4	4.4	3.4	4.5	3.6																																																				
A2.1	4.1	3.4	4.2	3.2																																																				
A2.2	4.5	3.5	4.8	3.9																																																				
A2.3	4.5	3.2	5.0	3																																																				
B.1	4.3	4.1	4.7	3.8																																																				
B.2	4.5	3.5	4.5	3.5																																																				

While STC's overall average stayed the same for both expert and self-assessments from 1st to 2nd CA, several areas showed a decrease in average. Some background information is needed to explain these. At the time of the 1st CA two counterparts, Mr Ashnil Sharma and Ms Eseta Leawere, were conducting J-PRISM activities. The situation at STC at the time meant that Mr Sharma, the 3R Officer, was able to focus on 3R activities. However, after Ms Eseta Leawere left STC there was no replacement health inspector, therefore Mr Sharma subsequently had to take over the entire workload previously conducted by the two of them. As a result, he could not allocate sufficient time to 3R activities, and his capacity was not able to be improved in all areas covered by this assessment. It must be mentioned though, the reasons for this cannot be simply put down to Ms Leawere leaving STC. The 2nd CA interviews were shortly before Mr Sharma was to leave STC, therefore both the counterparts (including the CEO of STC, Mr Tulsi Ram) and the experts were concerned about the future implementation structure—namely the organisational capacity—of 3R activities at STC.

Strengths

Sigatoka Town Council (STC) has a generally high self-assessment of its 3R capacity. One interesting point, is that the experts recorded more areas of increased individual capacity (from 1st to 2nd CA) than the counterpart (Ashnil). This kind of humility seemed to be fairly rare based on the interviews. The following are some of the individual capacities the experts assessed as increasing:

- understanding of SWM, issues and ability to devise solutions
- setting of goals/indicators
- knowing which organisations should be involved in 3Rs
- conducting awareness and giving guidance
- recording and reporting of 3R activities

- analysing success and failure factors
- explain and answer queries in 3R training

Meanwhile the counterpart and not the experts recorded an improvement in:

- evaluate, revise and conduct revised 3R training (A2.3, Q1-3)

And organisationally the counterpart and experts recorded improvement in:

- acknowledge the need for NSWMS (B1, Q1)
- have a clearly assigned unit and responsibilities for 3R promotion (B1, Q2/3)
- have a plan for 3R implementation (B1, Q4)

While only the counterpart recorded improvement in:

- has sufficient budget for 3R activities (B1, Q6)
- has cooperative relationships with stakeholders (B1, Q8)
- has a recording and reporting system of 3R activities to top management (B1, Q9)
- has a monitoring system of 3R activities (B1, Q10)

Weaknesses and challenges

As mentioned, STC ranked itself generally very highly, with only three responses below four: that is, three for knowing materials/budget/human resources needed for 3R implementation (A1.1, Q12); sharing plan and collecting views from staff/stakeholders/top management (A1.1, Q13); and its organisational human resource situation (experts agreed with all three, but more are listed in the next paragraph). This last point (human resource issues) is significant with the main counterpart leaving the organisation shortly after the 2nd CA. This has left STC in arguably the most difficult circumstances of all the counterpart organisations. In fact, as the CEO, Mr Tulsi Ram, transferred from Tavua in early 2015, the human resource situation reported in TTC in the 1st CA (basically only the CEO, Mr Ram, available to implement Project 3R activities) is now replicated in STC. Sigatoka has a stronger system for 3R implementation in place, with input from several outside organisations (OISCA, National Trust of Fiji (Sigatoka Sand Dunes), Shangri La Resort, CSP schools), however, it remains to be seen how sustainable this system is without a dedicated counterpart to oversee Project activities.

While the self-assessment was quite high, the experts highlighted several areas of weakness, including:

- understanding of national SWM strategy and 3R policy
- ability to develop a waste stream, scheduling of 3R activities
- evaluating training and 3R activity effectiveness
- revising plans
- improving processes and systems
- knowledge of necessary training
- development of training program and materials

Feedback from Sigatoka Town Council – Mr Tulsi Ram, CEO

- Biggest weakness is human resources; currently no health inspector/counterpart for J-PRISM activities is CEO and one attachment

- Plan to have replacement health inspector by end of month (August 2015); plan to employ current intern when current contract expires in December, have her focus on 3R activities under health inspector
- Will concentrate on littering; greater awareness and outreach; utilise national government Challenge Fund; hope to spread compost bins, have all 247 ratepayers composting (some using bins communally) eventually
- Market waste composting going well thanks to OISCA; plan to renew current memorandum of understanding in October
- Landfill is greatest challenge; must show good example/commitment if want to gain trust and commitment of residents/stakeholders (incl. hotels) to cooperate on SWM/3R activities
- Committed to improve landfill by extending boundary; construct fence to control entry, fires, etc.
- Motto for future action: “action is better than words”

4.2.2.5 Tavua Town Council (TTC)

The following radar chart and table show the averages of C/P and expert responses in the first and second capacity assessments for Tavua Town Council.

Table 12: Radar chart and table depicting C/P and expert response averages in 1st and 2nd CAs for TTC

Radar chart of TTC's assessment (self and expert) averages by activity	Table of TTC's score averages by activity				
<p>Legend:</p> <ul style="list-style-type: none"> 1st CA (Self) (Blue line with circles) 2nd CA (Self) (Red line with squares) 1st CA (Expert) (Green line with triangles) 2nd CA (Expert) (Purple line with crosses) 		1 st CA		2 nd CA	
	Activity	C/P Ave.	Expert Ave.	C/P Ave.	Expert Ave.
	A1.1	4.8	3.6	4.8	3.3
	A1.2	3.0	3	5.0	3
	A1.3	4.6	2.8	5.0	3.4
	A1.4	4.1	3.4	4.9	3
	A2.1	3.2	3.3	4.8	3.6
	A2.2	3.0	3.3	5.0	3.3
	A2.3	2.0	2	4.0	2.8
	B.1	3.1	2.4	4.3	3.3
	B.2	1.0	1	5.0	1

There is an obvious (as evident in the radar chart above and sharp change in the self-assessed status of Tavua Town Council. This trend for high self-assessment is not reflected in the experts' assessments. At the time of the 1st CA, Project activities were suspended in Tavua due to an absence of any counterpart assigned specifically to Project duties. As of the 2nd CA, a new CEO, Ms Temalasi Henfiro, had been assigned to TTC. Ms Henfiro was proactively engaged in the Project and had implemented several changes. She had assigned two new workers—albeit inexperienced and regarded as having low 3R related capacity (the main

duties of one is grass cutting while the other is a waste collection driver)—to implement and monitor 3R activities every Thursday. These two workers showed enthusiasm and appreciation of their new role. The fact that these changes are quite recent in terms of the Project term, means it is difficult to accurately assess the effectiveness, sustainability and operability of the newly restarted activities.

One factor that cannot be overlooked in this recent proactive stance towards Project activities is the positive influence monitoring activities of DoE West has had—first in bringing to light issues facing TTC and subsequent offers of support from other councils.

Strengths

Ms Temalasi Henfiro, the CEO of TTC, answered mostly five, with some fours and only two instances of three (see below). This is a good example of the need for a second opinion in the form of the J-PRISM experts' evaluations, due to these answers being considered comparatively too high, and not indicative of the true weaknesses of TTC, as well as making it hard to pinpoint (in the data) the actual strengths.

Some strengths as assessed by the experts (scores in brackets):

- knowing organisations with necessary 3R information (4)
- awareness of necessity of 3R implementation (4 and 4.5)
- knowing resources needed for 3Rs (4)
- communication and management skills (4)

Weaknesses and challenges

The two self-assessed organisational weaknesses (scored three) were insufficient budget and machinery/materials to implement 3R activities. Both of these were reported as weaknesses in the first CA, while the previously reported lack of human resources is no longer (self) assessed as being an issue. The experts agreed with these weaknesses. The experts also assessed ability to conduct training programs as a weakness, however, as this is not currently required of TTC, this is not considered an issue.

Individual weaknesses are regarded as stemming from Ms Henfiro not having a background in waste management or health (prior to becoming TTC CEO in 2015 Ms Henfiro was an economist in the finance ministry). The experts generally assessed most of the C/Ps individual capacities as three (compared to mostly self-assessed fives). As mentioned before, more time is needed to accurately assess her capacity.

The inexperience of the two workers newly involved in 3R activities, while not a target of this CA, are also considered a weakness worthy of further mention. TTC will face challenges implementing 3R activities compared to other councils where health department staff are responsible. Therefore TTC will need continuing support to gradually improve the capacity of both these two workers and the CEO.

Feedback from Tavua Town Council – Ms Temalesi Henfiro, CEO

Strengths:

- Two officers fully assigned every Thursday to J-PRISM activities (CSP and home composting); ample time and human resources

- Motivation: success depends “not just on experience, but if you’re eager”
- Some schools showing high level of self-motivation

Challenges:

- Lack of awareness of residents, stakeholders
- Lack of experienced staff/unfamiliar tasks (both CSP and home composting); possibly take several years before can get qualified health inspector

Solutions:

- More capacity building and training (waste management, composting)
- J-PRISM regular meetings valuable opportunity for learning
- Need to study CSP guideline/invite Ms Nafiza to teach about CSP
- Distribute CSP Guidelines to schools (request more copies from DoE)
- Makes schedule for CSP; October monitoring, November judging
- Awareness raising activities – door-to-door, posters, pamphlets,
- Request for a JOCV
- Support from DoE

4.2.2.6 Rakiraki Town Council

The following radar chart and table show the averages of C/P and expert responses in the first and second capacity assessments for Rakiraki Town Council.

Table 13: Radar chart and table depicting C/P and expert response averages in 1st and 2nd CAs for RTC

Radar chart of RTC's assessment (self and expert) averages by activity	Table of RTC's score averages by activity				
<p>Activity 1.1</p> <p>Activity 1.2</p> <p>Activity 1.3</p> <p>Activity 1.4</p> <p>Activity 2.1</p> <p>Activity 2.2</p> <p>Activity 2.3</p> <p>B.1</p> <p>B.2</p> <p>1st CA (Self)</p> <p>2nd CA (Self)</p> <p>1st CA (Expert)</p> <p>2nd CA (Expert)</p>		1 st CA	2 nd CA		
	Activity	C/P Ave.	Expert Ave.	C/P Ave.	Expert Ave.
	A1.1	4.4	3	4.3	3.6
	A1.2	4.0	3.2	5.0	3.2
	A1.3	4.2	3	4.8	3.5
	A1.4	4.3	3.3	5.0	3.8
	A2.1	4.3	2.2	5.0	3.4
	A2.2	3.0	2	5.0	3.5
	A2.3	1.0	1.3	5.0	3
	B.1	2.3	2.1	2.3	2.3
	B.2	2.0	1	3.0	1.8

As can be seen in the above radar chart, there have been significant changes in capacity, both self-assessed and expert assessed, at Rakiraki Town Council. However, as further explained below, this is mostly down to a change in counterpart personnel. At the time of the 1st CA,

only limited Project activities were being conducted in Rakiraki due to capacity of the counterpart assigned to Project duties, Ms Emi Balemaiwai. As of the 2nd CA, a new CEO, Mr Rakesh Chandra, had been assigned to RTC, and has taken over Project responsibilities. However, there is no longer a specific working-level counterpart assigned to Project 3R duties. It is unclear to what extent Mr Chandra—due mainly to the fact that his main role is as CEO, which will occupy most of his time—will be able to conduct 3R activities. At a meeting in February, 2015, J-PRISM expert requested Mr Rakesh Chandra to assign working-level staff for implementing 3R activities by the end of the year 2015. In the CA interview Mr Chandra commented that he did not wish to assign working-level staff unless he can find someone with sufficient knowledge of 3Rs. Therefore, this may take some time. Without the assignment of working-level staff, it is considered that RTC would face extreme difficulty to continue any 3R activities.

Upon visiting a CSP school with Mr Chandra, he showed some knowledge of composting and communicated this well to the teacher in charge. However, it was clear that CSP activities at the school had been inactive for quite some time, and that Mr Chandra still had relatively limited knowledge of the Clean School Program activities, and had not as yet had time to conduct school visits for instruction or monitoring. Moreover, despite all ten of the compost bins allocated under the DoE sponsored national subsidy program being sold very rapidly, a visit to a hotel involved in Project activities (via JOCV Mr Koga), as well as the interview comments of the C/P confirmed that the compost bin recipients had not received sufficient composting advice nor monitoring to reinforce or correct composting techniques.

Strengths

The Rakiraki counterpart, Mr Chandra, ranked all of his individual capacities as either four or five besides one (see below). The experts—while confirming the increase in capacity at RTC due to the change of C/P from Ms Emi Balemaiwai (who had almost no experience in SWM) to Mr Chandra (who was previously a health inspector at Ra Rural Authority)—did not always agree with these high self-assessments (see below for capacities assessed as weaknesses by the experts).

The experts assessed all activities to have improved (again, due to a change in personnel, not as a result of Project activities) besides 1.2, conducting of 3R training. Three individual capacities were assessed as five by one of the experts. They were:

- knowing which organisations have necessary information for SWM
- identifying SWM issues in Fiji and Rakiraki
- awareness of necessity of 3Rs

Weaknesses and challenges

The only individual capacity to be self-assessed lowly (three) was in Activity 1.1, questions seven and nine:

- developing a waste stream
- setting goals and indicators to be achieved by 3R activity implementation

Meanwhile, organisationally, every answer (besides B1, Q1 and B2 Q3) was self-assessed as three or lower. Clearly, Mr Chandra recognises his council's organisational limitations,

particularly with regard to budget and physical resources (scored one).

The above self-assessments were all in agreement with expert assessments. There were several other weaknesses highlighted by the experts, particularly:

- ability to conduct and evaluate training,
- making training materials,
- implementing and evaluating 3R activities,
- making schedules
- knowledge of 3R resources

Rakiraki Town Council is still a very young organisation and as yet does not have an established health department and its organisational capacity remains limited. Under such circumstances, the experts believe that it is appropriate that Project activities remain on a limited scale in RTC. It is expected 3R activities will be able to be increased gradually as new personnel join the council.

Feedback from Rakiraki Town Council – Mr Rakesh Chandra, CEO

Challenges:

- Staff situation is biggest challenge faced by RTC; currently only have seven laborers
- RTC does not possess sufficient capability to develop capacity of its staff
- Workers need training, such as training-of-trainers (TOT) to enable training of vendors, home composting, etc.; and therefore alleviate CEO's workload.
- Has been no solid waste related data collection since preliminary survey in 2011.
- Council only owns one vehicle (CEO's pickup truck) used for all purposes.

Solutions:

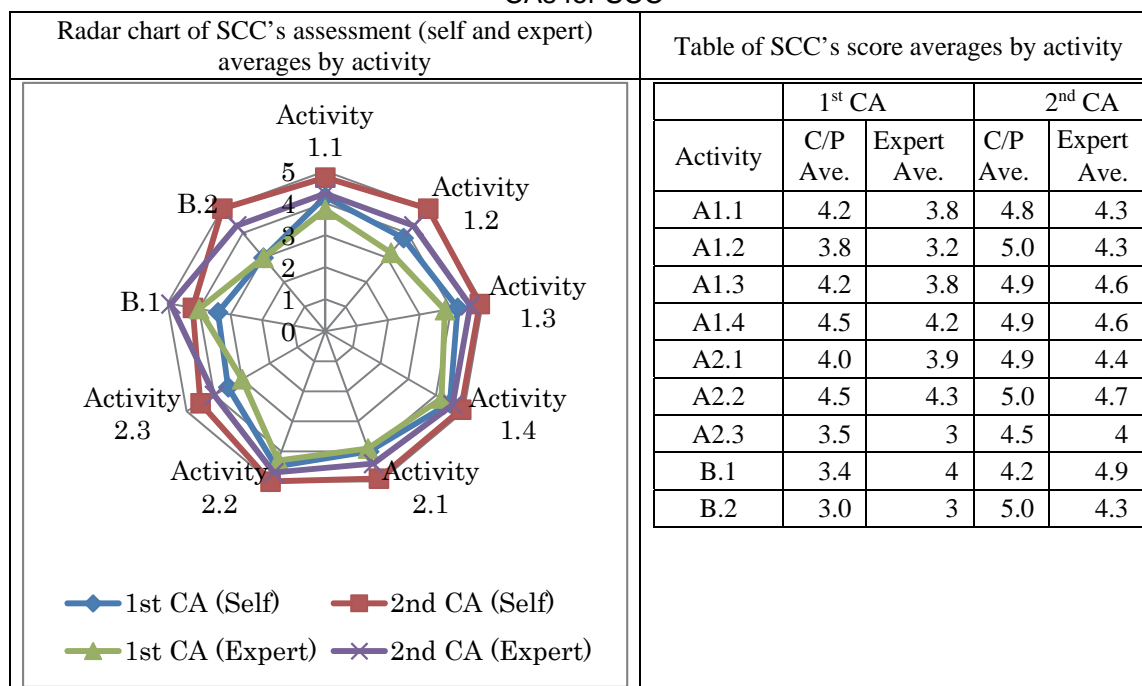
- Requests a replacement JOCV
- Ideally, a national institution, such as Fiji National University, needs to develop training programs to cater to the various 3R and SWM roles needed to be undertaken by councils
- In process of changing town planning scheme; smaller town boundary and purchase of land assets has been approved by Minister of Local Government; land assets expected to increase revenue and improve financial situation of council
- Developing 5-year plan including SWM and 3R strategy
- Plan to hire dedicated health inspector and building engineer within three to five years as well as several laborers by 2017.
- Will start data collection survey (by end of August/2nd week of September)
- Have applied to Ministry of Local Govt. for waste collection truck under the challenge fund; has been confirmed by the Minister, exact date of delivery still unknown.

4.2.2.7 Suva City Council (SCC)

The following radar chart and table show the averages of C/P and expert responses in the first and second capacity assessments for Suva City Council.

Table 14: Radar chart and table depicting C/P and expert response averages in 1st and 2nd

CAs for SCC



Strengths

With only one response below four (see below), both Suva City Council counterparts ranked their individual capacities in conducting the various 3R activities and training very highly. This is a marked improvement from the first CA, perhaps reflecting greater confidence after gaining further experience in both 3R implementation and 3R trainings through the project.

The experts also had increased their assessments of numerous capacities such as:

- developing a waste stream,
- formulating schedules for effective 3R implementation,
- conducting, evaluating and revising training/action plans/awareness activities
- analysing success and failure factors

These areas of increased capacity are regarded by the expert as a result of the on-the-job training (including data management training; not included in CA) and three training sessions conducted in cooperation with DoE as part of the Project. This is considered to have considerably strengthened SCC's organisational capacity, particularly in regard to conducting of training.

Weaknesses and challenges

The only individual capacity to be ranked as a weak point (three) was Robert's self-assessed knowledge of the National Solid Waste Management Strategy (2011-14). This was also the only individual capacity to be assessed by the experts as three.

As for organisational capacity, the counterparts stressed in the interview (as well as their lowest questionnaire response of three for B1, Q4) their need for an overarching strategy or plan to provide direction for their 3R activities. They were hoping the JICA senior volunteer who was with them for several months in 2014 would be able to assist them in this regard. As

they still consider their organisation to be lacking any personnel capable of this task, they seem to be hoping JICA or another donor will be able to assist them.

SCC's other self-assessed organisational (relative) weaknesses were all in B1, capacity to implement the national 3R strategy, namely human, physical and budgetary resources, cooperative relationships with stakeholders, and recording reporting and monitoring capabilities. These were all self-assessed as four, while the experts assessed all but human resources (assessed by one expert as 4.5 and the other 5) as five. Therefore, these relative weaknesses are not considered to be significant impediments to SCC's ability to conduct 3R activities. In fact, SCC's cooperative relationships with stakeholders—both within and outside the bounds of the Project—is worthy of highlighting as a best practice for other councils and DoE. SCC has utilised private sector companies' resources such as obtaining \$250,000 (verbally reported by Mr Naresh Narayan) in corporate sponsorship for its recyclables collection bins.

Feedback from Suva City Council – Mr Narayan and Mr Randolph

Strengths:

- Experience/Trainings: Team members have been exposed to 3R workshops and training overseas and within the country on what is expected of them during 3R planning, implementation, monitoring, revaluating and reporting. The lessons learnt have been put into practice whilst carrying out different phases of 3R projects being undertaken.
- Structure/Machineries: The investment of the Suva City Council in this area of waste management has allowed the team to be better equipped with better working area and equipment through the provision of composting shed and machineries which includes shredder machines, truck.
- Working with Stakeholders: The ability to identify and work with key stakeholders is also seen as strength as the team was able to secure funding for projects, works with target groups, NGOs and Government Ministries in promoting 3R.
- Able to share information with other municipalities and assist each other where possible.
- Good networking amongst municipalities, JICA, DOE, J-PRISM Technical expert which has been well set by JICA

Challenges:

- Solid Waste Management Procedures: The guiding principles to waste management and 3R for SCC are yet to be developed and we are looking at this as a challenge and weakness.
- Human Resource: The ability for the council to provide necessary manpower is always a challenge as work associated with 3R continually increases which also requires additional manpower. 3R activities are hindered due to human resource capability.
- Resource Capabilities: Even though we identify that our team have been adequately trained, 3R encompasses a wider range of skills and knowledge. We continue to see that 3R is a technical field which requires staffs ability to obtain data, record, interpret/analyze and report data which we see as a challenge.

Solutions:

The strengths identified can be a weakness if it is not properly monitored, upgraded and

maintained to allow it to be productive. The team believes that to sustain and improve such relationships with stakeholders, improve knowledge with technologies and new ideas, we should be exposed to such environment through building work relationship networks and exposure to further trainings. In this way our team is better equipped to tackle and solve problems identified.

Weaknesses identified: is always a setback to any organization but to provide countermeasures may cause a weakness to become strength. In this assessment the team was able to identify some weakness and the way forward to overcome these weaknesses are through:

- Work towards formulating SCC Solid Waste Management Strategic Plan
- To formulate work plans with workers to allow them to carry out 3R activities without frustrations
- Continue training to upgrade knowledge of 3R workers.
- 3R activities to be seen as a KPI/KRA for the DOE and municipalities alike.

5. Conclusions

Evaluating from a wider perspective, the above results all point in the direction of gradual, and mostly consistent, general development of the counterpart capacities, both at individual and organisational levels. The counterparts—as well as the experts—have assessed themselves higher or the same in nearly all of their responses. Their verbal responses also pointed in this direction; revealing increased confidence in their ability to implement 3R activities. As mentioned in the first CA conclusion, there is a tendency of awareness of lack of evaluation capacity for improving on their 3R activity and training implementation, especially for counterparts from other countries. While this has shown improvement, such awareness is also a positive sign for the sustainability of the Project's achievements. Moreover, numerous counterparts expressed their appreciation for their improved skills as well as their commitment to continue on with the activities cemented during the Project period. In particular, the J-PRISM regular meetings, which have grown to encompass councils not officially part of the Project, were highlighted for their role in aiding communication, sharing of lessons learnt (both positive and negative), monitoring of councils' activities (on the part of DoE), as well as councils appreciating the role of the meetings in increasing DoE's involvement in and understanding and joint-ownership of 3R activities undertaken by councils.

Monitoring and evaluation capacity, namely *check* within the *plan-do-check-act* (PDCA)-based 3R implementation strategy central to J-PRISM activities, has been significantly strengthened by the regular J-PRISM meetings as well as the monitoring system developed in the Project. This system of each council filling out a standard monitoring sheet format to submit to DoE before each regular meeting—with the aim of establishing a foundation for evaluation, advice, support and communication between councils and DoE—while still not fully fledged, is seen as an important accomplishment of the Project. It is hoped this good practice can be further strengthened and improved and disseminated to all councils in Fiji in future.

The process of gaining feedback in this capacity assessment has also been recognized by the

counterparts as a vital tool for evaluating and analysing issues and impediments to progress. The counterparts expressed that this process has increased their awareness of their respective strengths, challenges and solutions to SWM and 3R issues, which will in turn enable them to more effectively turn this *check* process into real action.

A recurrent theme from the 1st CA is DoE WPU's awareness of its need for capacity to develop national frameworks/programs to promote council 3R activities. While it has made significant progress in this regard, such as the national home composting and CSP subsidies, the interviews revealed facilitating the development of the follow-up framework to the NSWMS 2011-14 to be one of DoE WPU's highest priorities. WPU staff, however, have encountered challenges that have delayed the development of the 3R Policy and the national integrated waste management strategy. Considering a general concern of councils is their lack of budgetary and material resources, strengthening and expanding national subsidy programs and platforms for 3R action is clearly an area that needs continued attention and effort.

Meanwhile, DoE West highlighted establishing a monitoring system of 3R activities as a priority for capacity development in the first CA. This has been an area of J-PRISM assistance, such as the abovementioned regular J-PRISM meetings and monitoring sheet/system development. While there is still room for improvement, such measures can be considered to have reached a point of sustainable implementation.

Another recurrent issue from the first assessment was the general—both DoE and councils—recognition of an organisational lack of human resources. The previous report highlighted the need to avoid over-reliance on any individual worker, particularly at smaller councils, as well as the need to involve stakeholders to ensure the sustainability of 3R activities. The case of Mr Sharma leaving STC highlights this as a recurring issue. However, the fact that STC had made progress in involving numerous stakeholders is considered to have left its prospects for future 3R implementation in better condition than at other councils that previously faced similar situations but were lacking in strong stakeholder cooperation. Moreover, Suva City Council's ability to involve stakeholders and obtain private sector sponsorship is another good practice for replication and expansion at other councils.

In the remaining period of the Project, it is considered important to continue to reinforce the particular strengths of each organisation and counterpart, so that they continue to build on these strengths—based on the foundations laid in J-PRISM, a *plan-do-check-act* framework for concrete progress—as they move forward with current 3R activities and face new challenges. Continued work to build capacity in regard to monitoring and evaluation to pinpoint both strengths and weaknesses is also considered important, and a valuable legacy of the Project to ensure its sustainability. The overall atmosphere of the capacity assessment interviews was positive, with the counterparts showing greater confidence and motivation, which bodes well for a bright future of 3Rs in Fiji.

4.2 Kiribati

Result of Capacity Assessment in Kiribati

Since the start of J-PRISM in Kiribati, Capacity Assessment, CA, was conducted regularly. The CA is divided into 2 parts, individual capacity assessment and organizational capacity assessment. The result of each assessment is summarized below.

1. Individual Capacity Assessment

Capacity assessment for individual counterparts was conducted several times since the start of the project in 2011. Due to the frequent changes of counterparts and medical leave, however, CA of individual counterparts was often interrupted, and the CA only for the following three counterparts is continued to be conducted so far.

1.1 Targets of individual Capacity Assessment

The targets of Individual Capacity Assessment are shown below.

Organization	Name and Position	Job experiences	Date of assessment
Environment and Conservation Division	Ms. Robite Teaete Media Public Awareness officer	<ul style="list-style-type: none"> She took the post in 2012 Previous job was an assistant at Climate Change Unit, ECD, for 3 years after graduating university 	(May 2013) Sep 2014 Aug 2015
Betio Town Council	Mr. Kaiea Toromon Work Supervisor	<ul style="list-style-type: none"> Started to work as Waste Supervisor in March, 2015. Previous job: law enforcement officer at BTC 	May 2015
Teinainano Urban Council	Mr. Harry Langley Work Supervisor	<ul style="list-style-type: none"> It's been around 3 years since he took the position of Waste Supervisor Previous job: Youth and Sport officer at TUC 	Feb 2014 May 2015

1.2 Assessment Methods

The method of capacity assessment is interview with targeted counterparts, based on the assessment sheets. The target items of assessment are divided into several categories, as shown in the table below, and CP and J-PRISM expert scored CP's knowledge and skills in each category, based on the result of discussion. The criteria of scores are also shown below.

Categories of Capacity Assessment

A-1	Knowledge on Laws, Regulations, Strategies and Plans
A-2	Skills of Laws, Regulations, and so on obtained through experience
B-1	Technical knowledge on Solid Waste Management
B-2	Technical skills on Solid Waste Management
C-1	Collection of Information and data
C-2	Information management capability
D	Communication skills

Criteria of Scores

1	No or quite a little knowledge or skill
2	Some knowledge or skill but needing great help to do occupational duties
3	Considerable knowledge or skill but needing some help to do occupational duties
4	Almost sufficient knowledge or skill to do occupational duties

1.3 Result

The results of the individual capacity assessment are summarized below. The CA score sheets are attached at the end of the report.

(1) Environment and Conservation Division (ECD)

Name of CP	Ms. Robite Teaete	
Knowledge on Laws, Regulations, Strategies and Plans	<ul style="list-style-type: none"> in 2014, to know about Environment related laws but has little knowledge on regional and national SWM strategies to add knowledge on regional and national strategies of solid waste management during the project period 	
	average score in 2014: 1.8	average score in 2015: 2.7
Skills obtained through experience of Laws, Regulations, and so on	<ul style="list-style-type: none"> through the works under J-PRISM and NZAID project, have experiences to use SWM related laws and regulations, but the skills and experiences are still limited. 	
	in 2014: 1.4	average score in 2015: 2.3
Technical knowledge on Solid Waste Management	<ul style="list-style-type: none"> to acquire knowledge in the field of garbage collection and 3Rs to some extent under J-PRISM and NZAID project 	
	average score in 2014: 2.5	average score in 2015: 3.1
Technical skills on Solid Waste Management	<ul style="list-style-type: none"> to have little technical skills, due to the lack of chances to utilize them before the project to have some experiences in the field of garbage collection and 3Rs, but skills is still limited 	
	average score in 2014: 2.1	average score in 2015: 2.7
Collection of Information and data	<ul style="list-style-type: none"> no routine data collection work 	
	average score in 2014: 2.3	average score in 2015: 3.0
Information management capability	<ul style="list-style-type: none"> electronic data is saved on a computer (no backup) need to improve the management system, in particular for hard copy information 	
	average score in 2014: 2.0	average score in 2015: 3.6
Communication skills	<ul style="list-style-type: none"> need to improve skills to prepare for materials and make presentations 	
	average score in 2014: 3.6	average score in 2015: 3.6

(2) Betio Town Council (BTC)

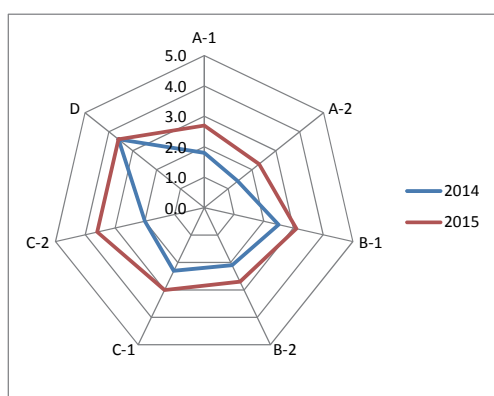
Name of CP	Mr. Kaiea Toromon (BTC)	
Knowledge on Laws, Regulations, Strategies and Plans	<ul style="list-style-type: none"> to have little knowledge on laws and regulations in the field of not only SWM but also environment, such as Environment Act 	
	score in 2015: 1.4	
Skills obtained through experience Laws, Regulations, and so on	<ul style="list-style-type: none"> to have limited skills in the field of solid waste management, but know about law enforcement issues thanks to the previous job 	
	1.0	
Technical knowledge on Solid Waste Management	<ul style="list-style-type: none"> to have very limited knowledge on solid waste management (just come back from a training program in Japan) 	
	1.3	
Technical skills on Solid Waste Management	<ul style="list-style-type: none"> no practical experiences need to develop practical skills through organic waste recycling and CSP monitoring activities 	
	1.1	
Collection of Information and data	<ul style="list-style-type: none"> to have no necessary references and information yet cannot search and collect necessary references and information by himself yet 	
	1.0	

Information management capability	<ul style="list-style-type: none"> to just start the data collection work (Organic waste recycling) and learn how to manage collected data to have limited computer skills and need to learn more how to use Excel (recommended CEO to send him to a short-term computer training program)
	1.2
Communication skills	<ul style="list-style-type: none"> to facilitate good communication with workers (can manage workers) need to improve communication skill with donor organizations (need to learn basic business manners) not to have experiences of raising community awareness yet
	2.2

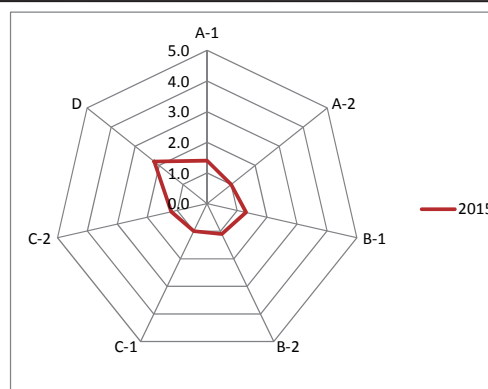
(3) Teinainano Urban Council

Name	Mr. Harry Langley (TUC)	
Knowledge on Laws, Regulations, Strategies and Plans	<ul style="list-style-type: none"> in 2014, to have basic knowledge on laws and regulations, such as Environment Act and council plan to collect documents on laws and regulations (soft copy) and save on computer in 2015, no major change since 2014 	
	score in 2014: 2.8	score in 2015: 2.6
Skills obtained through experience Laws, Regulations, and so on	<ul style="list-style-type: none"> Since 2014, to enhances his practical skills in the field of laws and regulations, working with MIA in order to prepare for a new law about tipping fee, Tipping fee by law, 	
	score in 2014: 3.0	score in 2015: 4.0
Technical knowledge on Solid Waste Management	<ul style="list-style-type: none"> to deepen the knowledge on SWM through a SPREP training program in Suva in 2013 and a JICA training program in 2014 	
	score in 2014: 1.9	score in 2015: 3.8
Technical skills on Solid Waste Management	<ul style="list-style-type: none"> to enhance technical skills through implementing an action plan to promote school compost, which was made at the end of the JICA training (sharing the monitoring activities with ECD) to take a practical training of landfill management under NZAID project, and to enhance the skills high enough to be sent as a trainer to a training program abroad 	
	score in 2014: 2.0	score in 2015: 3.9
Collection of Information and data	<ul style="list-style-type: none"> to try to collect references and information as much as possible at the training programs and workshops not to try to collection by himself by internet and other ways 	
	score in 2014: 2.0	score in 2015: 3.0
Information management capability	<ul style="list-style-type: none"> to save and sort electric files on a computer to computerize the data on collection vehicles at landfills. to have basic skills of Excel to have no knowledge of statistics 	
	score in 2014: 2.0	score in 2015: 3.6
Communication skills	<ul style="list-style-type: none"> to have good communications with donor organizations and actively participate in discussions at meetings to strictly supervise workers to improve communication skills with communities and customers of the council collection service. 	
	score in 2014: 3.0	score in 2015: 3.8

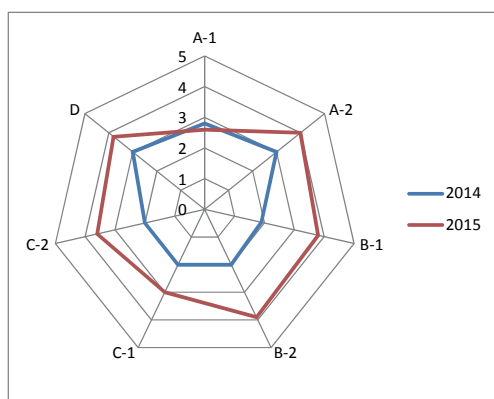
The changes (improvement) in scores in each category between 2014 and 2015 are shown in the figures below.



Ms. Robite Teaete (ECD)



Mr. Kaiea Toromon (BTC)



Mr. Harry Langley (TUC)

2. Organizational Capacity Assessment

The organizational capacity assessment was conducted twice, in 2011 and 2015, targeting ECD and BTC. The result of the assessment is shown below.

2.1 Assessment Methods

The method of capacity assessment is interview with counterparts of the targeted organizations, based on the assessment sheets. The target items of assessment are divided into several categories, as shown in the table below, and CP and J-PRISM expert scored targeted items, based on the result of discussion. The criteria of scores are also shown below.

Categories of Capacity Assessment

A	Structure of Organization
B	Human resources
C	Property
D	Finance
E	Information/ Data Management
F	Communications

Criteria of Scores

Category	Class	Evaluation item	Score	Evaluation standard	
				Grade	Standard
Organization	Structure of Organization	Degree of grasping roles of central government		1	Role of national level is not grasped.
				2	Role of national level is grasped partly but not sufficient.
				3	Role of national level is grasped to some extent.
				4	Role of national level is grasped almost completely.
		Appropriateness of structure of agencies		1	No agency for required roles.
				2	Some agencies for required roles but not sufficient.
				3	Agencies for required roles existing to some extent but their relations are not clear.
				4	Agencies for required roles existing and can cooperate together.
		Clearness of roles of each agency		1	Roles of each agency are not clear.
				2	Roles of each agency are partly clear but not sufficient.
				3	Roles of each agency are clear to some extent but not stipulated elaborately by law.
				4	Roles of each agency are very clear and stipulated by law.
		Appropriateness of staff arrangement		1	Staff personnel for SWM are not provided.
				2	Staff personnel for SWM are provided but not sufficient.
				3	Necessary staff personnels for SWM are provided to some extent.
				4	Sufficient staff personnel for SWM are provided.
	Human resources	Technical		1	No staff personnel with technical knowledge and skills on SWM exist.
				2	Staff personnel with technical knowledge and skills on SWM exist but not sufficient.
				3	Some staff personnel with technical knowledge and skills on SWM exist.
				4	Sufficient staff personnel with technical knowledge and skills on SWM exist.
		Finance & Accounts		1	No staff personnel with the knowledge and skills of finance and accounts on SWM exist.
				2	Staff personnel with the knowledge and skills of finance and accounts on SWM exist but not sufficient.
				3	Some staff personnel with the knowledge and skills of finance and accounts on SWM exist.
				4	Sufficient staff personnel with the knowledge and skills of finance and accounts on SWM exist.
		Public awareness		1	No staff personnel with the knowledge and skills of public awareness on SWM exist.
				2	Staff personnel with the knowledge and skills of public awareness on SWM exist but not sufficient.
				3	Some staff personnel with the knowledge and skills of public awareness on SWM exist.
				4	Sufficient staff personnel with the knowledge and skills of public awareness on SWM exist.
		General affairs		1	No staff personnel with the knowledge of general affairs exist.
				2	Staff personnel with the knowledge of general affairs exist but not sufficient.
				3	Some staff personnel with the knowledge of general affairs exist.
				4	Sufficient staff personnel with the knowledge of general affairs exist.
	Property	Office space		1	No office space for SWM staff is provided.
				2	Office space for SWM staff is provided but not sufficient.
				3	Some office space for SWM staff is provided.
				4	Sufficient office space for SWM staff is provided.
		Stationaries		1	No office furniture (desks, lockers etc.) for SWM staff is provided.
				2	Office furniture (desks, lockers etc.) for SWM staff is provided but not sufficient.
				3	Some office furniture (desks, lockers etc.) for SWM staff is provided.
				4	Sufficient office furniture (desks, lockers etc.) for SWM staff is provided.
		OA equipment		1	No OA equipment (computers, printers etc.) for SWM staff is provided.
				2	OA equipment (computers, printers etc.) for SWM staff is provided but not sufficient.
				3	Some OA equipment (computers, printers etc.) for SWM staff is provided.
				4	Sufficient OA equipment (computers, printers etc.) for SWM staff is provided.
		Communication equipment		1	No communication equipment (telephones, faxes etc.) for SWM staff is provided.
				2	Communication equipment (telephones, faxes etc.) for SWM staff is provided but not sufficient.
				3	Some communication equipment (telephones, faxes etc.) for SWM staff is provided.
				4	Communication equipment (telephones, faxes etc.) for SWM staff is provided sufficiently.
		Vehicles		1	No vehicles for SWM staff are provided.
				2	Vehicles for SWM staff are provided but not sufficient.
				3	Some vehicles for SWM staff are provided.
				4	Vehicles for SWM staff are provided sufficiently.
	Intellectual asset	Literature and reference documents		1	No literature or reference documents on SWM exist.
				2	Literature or reference documents on SWM exist but not sufficient.
				3	Some literature or reference documents on SWM exist.
				4	Sufficient literature or reference documents on SWM exist.
		Accumulation of past data on SWM		1	No past data on SWM accumulated.
				2	Past data on SWM accumulated but not sufficient.
				3	Past data on SWM accumulated to some extent.
				4	Past data on SWM accumulated sufficiently.
		Accumulation of past data on facilities of SWM			1	No past data of facilities (final disposal sites, collection vehicles etc.) of SWM is accumulated.
				2	Past data of facilities is accumulated but not sufficient.
				3	Past data of facilities is accumulated to some extent.
				4	Past data of facilities is accumulated sufficiently.
		Present data of final disposal site			1	No present data of final disposal site is collected.
				2	Present data of final disposal site is collected but not sufficient.
				3	Present data of final disposal site is collected to some extent.
				4	Present data of final disposal site is collected sufficiently.
	Leadership	Coordination of related agencies		1	No leadership to coordinate related agencies is shown.
				2	Leadership to coordinate related agencies is shown but not sufficient.
				3	Leadership to coordinate related agencies is shown to some extent.
				4	Leadership to coordinate related agencies is shown sufficiently.
		Leadership to municipalities		1	No leadership to supervise/instruct/guide municipalities is shown.
				2	Leadership to supervise/instruct/guide municipalities is shown but not sufficient.
				3	Leadership to supervise/instruct/guide municipalities is shown to some extent.
				4	Leadership to supervise/instruct/guide municipalities is shown sufficiently.
		Leadership to business and citizen		1	No leadership to guide businesses and citizen is shown.
				2	Leadership to guide businesses and citizen is shown but not sufficient.
				3	Leadership to guide businesses and citizen is shown to some extent.
				4	Leadership to guide businesses and citizen is shown sufficiently.

2.3 Result

The results of the individual capacity assessment are summarized below. The CA score sheets are attached at the end of the report.

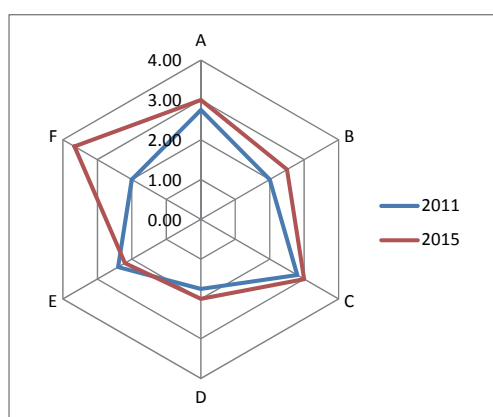
(1) Result of ECD Capacity Assessment

items	scores 2011	Scores 2015	
Structure of Organization	11/16	12/16	<ul style="list-style-type: none"> National Solid Waste Management Strategy, which was under the finalization process in 2011, supposed to define the roles and responsibilities of national/local government, citizens, and private sectors, but as of May, 2015, it was not enacted yet. The roles and responsibilities of each unit under ECD are clearly defined.
Human resources	8/16	10/16	<ul style="list-style-type: none"> The activities of donor projects are mostly implemented by project officers, who are temporality employed with the project budget only during the project period. This resulted in the difficulty of sustainability after donor projects finish.
Property	14/20	15/20	<ul style="list-style-type: none"> CPs claimed that there were not enough personal computers, OA equipment, and communication tools.
Finance	3.5/8	4/8	<ul style="list-style-type: none"> CPs claimed that the budget for human resources is not enough at all.
Information/ Data Management	12/20	11/20	<ul style="list-style-type: none"> The situations of data/information management has not been changed since 2011 The data on complaints and inspections are stored as hard copies The information/data acquired at each project is managed by individual officers, and there are no rules of information/data management and no back-up system There is a list of books and references at a library, but the management of the library is not good
Communication s	6/12	11/12	<ul style="list-style-type: none"> In 2011, CPs evaluated the communications with other national organizations, councils, communities, and businesses Through J-PRISM and NZAID project, ECD improved communications with other organizations

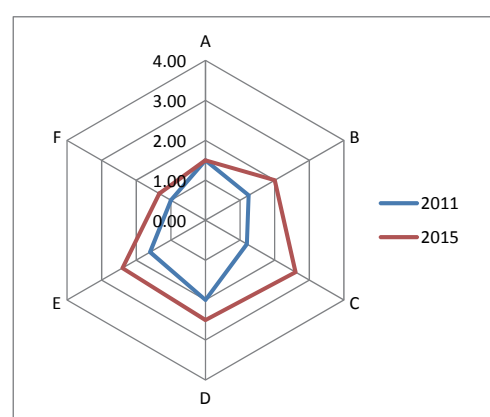
(2) Result of BTC Capacity Assessment

items	scores 2011	Scores 2015	
Structure of Organization	6/12	6/12	<ul style="list-style-type: none"> The roles of responsibilities of each officer are clearly written on the contract, but the quality of work at BTC heavily depends on CEO's management abilities. Every time CEO changed, the result of J-PRISM activities fluctuated. Ministry of Internal Affairs should be involved in the management of councils.
Human resources	5/12	8/12	<ul style="list-style-type: none"> CPs evaluated that there are not officers and staff with technical knowledge and skills Even though CPs increased the knowledge and skills through daily activities and training programs, but due to the frequent changes of CPs, it was difficult for BTC to increase the capabilities as an organization.
Property	6/20	13/20	<ul style="list-style-type: none"> During the project period, a room for Work Supervisor was prepared and a set of computer was provided. In addition, a workshop was constructed under NZAID project and collection workers got a space for relaxation. The lack of communication tools (a cell phone) and transportation (a motor bike) makes it difficult for Work Supervisor to react quickly to problems.

Finance	4/8	5/8	<ul style="list-style-type: none"> BTC collects garbage collection fee by deducting from paychecks of government employees, charging as a part of business license fees, and visiting houses. The total f BTC created a separate account for organic recycling activities and the expenses for daily operation such as fuel cost is covered by the account.
Information/ Data Management	8/20	12/20	<ul style="list-style-type: none"> The bulldozer operator is in charge of keeping records of vehicles which transport waste for final disposal on the logbook. The records are summarized every month and the result is presented at the SWM committee meeting. The records of organic waste recycling activities are input on the computer and summarized every month. Due to the frequent change of Waste Supervisors, the quality of data management work cannot be improved much.
Communication s	3/8	4/8	<ul style="list-style-type: none"> Under NZAID project, training programs were provided in order to improve its customer service, but due to the frequent change of Waste Supervisors, the communication skill cannot be improved much as a whole organization. Under J-PRISM, CP tries to improve communication skill through school monitoring in 2015.



ECD



BTC

Individual CA Score Sheet

1) the basis of 5 points

- 1: No or quite a little knowledge or skill
- 2: Some knowledge or skill but needing great help to do occupational duties
- 3: Considerable knowledge or skill but needing some help to do occupational duties
- 4: Almost sufficient knowledge or skill to do occupational duties
- 5: Trainer Level

Capacity Assessment Sheet (Individuals)						
Name:		Robite		Organization: ECD		
				Date:		
Category	Evaluation item			May-13	2014/9/23	2015/8/20
Individuals	Knowledge	Knowledge on Laws, Regulations, Strategies and Plans	1 Laws and regulations on Solid Waste Management	3	3	3
			2 Regional Solid Waste Management Strategy	2	1	2
			3 National Solid Waste Management Strategy	3	2	3
			4 National Solid Waste Management Plan	3	2	
			5 Municipal Solid Waste Management Plan	2	1	
		Technical knowledge	1 Waste Amount Study	2	2	2
			2 Time & Motion Study	1	1	2
			3 Waste discharge system	2	2	2
			4 Waste collection system	3	2	3
			5 Road sweeping	4	2	3
			6 Waste Recycling	3	3	4
	Skill (obtained through experience)	7 3R	4	4	4	
		8 Waste composting system	2	3	3	
		9 Final disposal system	3	1	4	
		10 Public awareness	4	4	4	
	Skill (obtained through experience)	Management skill on Laws, Regulations, Strategies and Plans	1 Laws and regulations on Solid Waste Management	2	2	2
			2 Regional Solid Waste Management Strategy	2	1	2
			3 National Solid Waste Management Strategy	2	2	3
			4 National Solid Waste Management Plan	2	1	
			5 Municipal Solid Waste Management Plan	2	1	
		Technical Management Skill	1 Waste Amount Study	2	1	2
			2 Time & Motion Study	1	1	2
			3 Waste discharge system	2	1	2
			4 Waste collection system	2	1	3
5						
6 Waste Recycling			4	2	4	
Total (A)			43	36	42	
	Target (B)					
	Situation (A/B)					
	Total (A)			35	28	34
		Target (B)			48	
Situation (A/B)						
Score		1 : No or quite a little knowledge or skill				
		2 : Some knowledge or skill but needing great help to do occupational duties				
	3 : Considerable knowledge or skill but needing some help to do occupational duties					
	4 : Almost sufficient knowledge or skill to do occupational duties					
	5 : Trainer Level					
Individuals	Information management capability	Awareness/intent on Daily Duties in official position	1 information gathering	4	3	4
			2 filing methods	3	2	3
			3 how to keep data	3	3	3
			4 digitizing data	3	1	2
			computer skills	3	4	4
			statistic knowledge	2	2	
	Communication skills	Awareness/intent on Project Activities	1 communication with colleagues	3	4	4
			2 communication with experts	3	3	3
			3 communication with other organizations	2	4	4
			4 communication with citizenz	3	4	4
			5 technique of communication with data, illustrations, photos	3	3	3
Total (A)				32	36	
	Target (B)					
	Situation (A/B)					

Capacity Assessment Sheet (Individuals)						
Name: Harry		Organization: TUC		Date:		
Category	Evaluation item		Score Initial Feb 2014	May 2015		
Individuals	Knowledge	Knowledge on Laws, Regulations, Strategies and Plans	1 Laws and regulations on Solid Waste Management	4	4	
			2 Regional Solid Waste Management Strategy	2	2	
			3 National Solid Waste Management Strategy	2	2	
			4 National Solid Waste Management Plan	3	2	
			5 Municipal Solid Waste Management Plan	3	3	
				2.8	2.6	
		Technical knowledge	1 Waste Amount Study	1	4	
			2 Time & Motion Study	2	4	
			3 Waste discharge system	2	4	
			4 Waste collection system	3	4	
			5 Road sweeping	1	3	
			6 Waste Recycling	2	4	
			7 3R	2	4	
			8 Waste composting system	1	4	
			9 Final disposal system	3	4	
	10 Public awareness		2	3		
	11 Environmental Impact Assessment	2	4			
			1.9	3.8		
	Total (A)					
	Target (B)					
	Situation (A/B)					
	Practical Skill (obtained through experience)	Management skill on Laws, Regulations, Strategies and Plans	1 Laws and regulations on Solid Waste Management	3	4	
			2 Regional Solid Waste Management Strategy	3	4	
			3 National Solid Waste Management Strategy	3	4	
			4 National Solid Waste Management Plan	3	4	
			5 Municipal Solid Waste Management Plan	3	4	
				3.0	4.0	
		Technical Management Skill	1 Waste Amount Study	1	4	
			2 Time & Motion Study	3	4	
			3 Waste discharge system	2	4	
4 Waste collection system			3	4		
5 Road sweeping			1	4		
6 Waste Recycling			2	4		
7 3R			2	4		
8 Waste composting system			1	4		
9 Final disposal			3	4		
10 Public awareness	2		3			
11 Environmental Impact Assessment	2	4				
		2	3.9			
Total (A)						
Target (B)						
Situation (A/B)						
Score	1 : No or quite a little knowledge or skill					
	2 : Some knowledge or skill but needing great help to do occupational duties					
	3 : Considerable knowledge or skill but needing some help to do occupational duties					
	4 : Almost sufficient knowledge or skill to do occupational duties					
	5 : Trainer Level					
Individuals	Information management capability	Awareness/intent on Daily Duties in official position	1 information gathering	2	3	
			2 filing methods		5	
			3 how to keep data	3	4	
			4 digitizing data		3	
			5 computer skills	2	4	
			6 statistic knowledge	1	2	
				2	3.5	
	Communication skills	Awareness/intent on Project Activities	1 communication with colleagues	3	4	
			2 communication with experts	3	4	
			3 communication with other organizations	3	4	
			4 communication with citizens	3	4	
			5 method of speaking	3	3	
			with data, illustrations, photos			
				3	3.8	
	Total (A)					
Target (B)						
Situation (A/B)						

Capacity Assessment Sheet (Individuals)						
Name: Kaiea			Organization: BTC		Date: May 2015	
Category	Evaluation item			Score Initial		
Individuals	Knowledge	Knowledge on Laws, Regulations, Strategies and Plans	1 Laws and regulations on Solid Waste Management	1		
			2 Regional Solid Waste Management Strategy	1		
			3 National Solid Waste Management Strategy	1		
			4 National Solid Waste Management Plan	1		
			5 Municipal Solid Waste Management Plan	3		
		Technical knowledge	1 Waste Amount Study	1		
			2 Time & Motion Study	1		
			3 Waste discharge system	1		
			4 Waste collection system	1		
			5 Road sweeping	1		
			6 Waste Recyclin g	2		
	Technical knowledge	7 3R	1			
		8 Waste compositng system	2			
		9 Final disposal system	2			
		10 Public awareness	1			
		11 Environmental Impact Assessment	1			
	Total (A)			1.3		
	Target (B)					
	Situation (A/B)					
	Practical Skill (obtained through experience)	Management skill on Laws, Regulations, Strategies and Plans	1 Laws and regulations on Solid Waste Management	1		
			2 Regional Solid Waste Management Strategy	1		
			3 National Solid Waste Management Strategy	1		
			4 National Solid Waste Management Plan	1		
			5 Municipal Solid Waste Management Plan	1		
Technical Management Skill		1 Waste Amount Study	1			
		2 Time & Motion Study	1			
		3 Waste discharge system	1			
		4 Waste collection system	1			
		5 Road sweeping	1			
		6 Waste Recyclin g	1			
		7 3R	2			
		8 Waste compositng system	1			
Technical Management Skill	9 Final disposal	1				
	10 Public awareness	1				
	11 Environmental Impact Assessment	1				
	Total (A)			1.1		
Target (B)						
Situation (A/B)						
Score		1 : No or quite a little knowledge or skill 2 : Some knowledge or skill but needing great help to do occupational duties 3 : Considerable knowledge or skill but needing some help to do occupational duties 4 : Almost sufficient knowledge or skill to do occupational duties 5 : Trainer Level				
Individuals	Information management capability	Awareness/intent on Daily Duties in official position	1 information gathering	1		
			2 filing methods	1		
			3 how to keep data	1		
			4 digitizing data	2		
			computer skills	1		
			statistic knowledge	1		
	Communication skills	Awareness/intent on Project Activities	1 communication with colleagues	4		
			2 communication with experts	2		
			3 communication with other organizations	1		
			4 communication with citizenz	2		
			5 technique of communication with data, illustrations, photos	2		
			Total (A)			2.2
	Target (B)					
Situation (A/B)						

ECD

CA Sheet (Organization)						
Category	Class	Evaluation item	Score Sep 2011	Score Aug 2015	Grade	Evaluation standard
Organization	Structure of Organization	1-1 Organizational structure (central - local relations)	3	3	1	Roles of each agency are not clear.
					2	Roles of each agency are partly clear but not sufficient.
					3	Roles of each agency are clear to some extent but not stipulated elaborately by law.
					4	Roles of each agency are very clear and stipulated by law.
		1-2 Organizational Structure (national level)	3	3	1	No agency for required roles.
					2	Some agencies for required roles but not sufficient.
					3	Agencies for required roles existing to some extent but their relations are not clear.
	Structure of Organization	1-3 Organizational structures (within the organization)	3	3	1	Roles of each unit are not clear.
					2	Roles of each unit are partly clear but not stipulated by documents
					3	Roles of each unit are stipulated by documents to some extent
					4	Roles of each unit are clearly stipulated by documents
		1-4 Appropriateness of staff arrangement	2	3	1	Staff personnel for SWM are not provided.
					2	Staff personnel for SWM are provided but not sufficient.
					3	Necessary staff personnel for SWM are provided to some extent.
					4	Sufficient staff personnel for SWM are provided.
	Human resources	Total score (A)	11	12		
		Target (B)				
		Achievement (AB)				
		2-1 Technical	2	3	1	No staff personnel with technical knowledge and skills on SWM exist.
					2	Staff personnel with technical knowledge and skills on SWM exist but not sufficient.
					3	Some staff personnel with technical knowledge and skills on SWM exist.
					4	Sufficient staff personnel with technical knowledge and skills on SWM exist.
	Human resources	2-2 Finance & Accounts	2	3	1	No staff personnel with the knowledge and skills of finance and accounts on SWM exist.
					2	Staff personnel with the knowledge and skills of finance and accounts on SWM exist but not sufficient.
					3	Some staff personnel with the knowledge and skills of finance and accounts on SWM exist.
					4	Sufficient staff personnel with the knowledge and skills of finance and accounts on SWM exist.
		2-3 Public awareness	2	2	1	No staff personnel with the knowledge and skills of public awareness on SWM exist.
					2	Staff personnel with the knowledge and skills of public awareness on SWM exist but not sufficient.
					3	Some staff personnel with the knowledge and skills of public awareness on SWM exist.
	Human resources	2-4 General affairs	2	2	1	No staff personnel with the knowledge and skills of public awareness on SWM exist.
					2	Sufficient staff personnel with the knowledge and skills of public awareness on SWM exist.
					3	No staff personnel with the knowledge of general affairs exist.
					4	Staff personnel with the knowledge of general affairs exist but not sufficient.
					3	Some staff personnel with the knowledge of general affairs exist.
					4	Sufficient staff personnel with the knowledge of general affairs exist.
		Total score (A)	8	10		
	Property	3-1 Office space	4	4	1	No office space for SWM staff is provided. (only for supervisor)
					2	Office space for SWM staff is provided but not sufficient.
					3	Some office space for SWM staff is provided.
					4	Sufficient office space for SWM staff is provided.
		3-2 Stationaries	4	4	1	No office furniture (desks, lockers etc.) for SWM staff is provided.
					2	Office furniture (desks, lockers etc.) for SWM staff is provided but not sufficient.
					3	Some office furniture (desks, lockers etc.) for SWM staff is provided.
	Property	3-3 OA equipment	2	3	1	No OA equipment (computers, printers etc.) for SWM staff is provided.
					2	OA equipment (computers, printers etc.) for SWM staff is provided but not sufficient.
					3	Some OA equipment (computers, printers etc.) for SWM staff is provided.
					4	Sufficient OA equipment (computers, printers etc.) for SWM staff is provided.
		3-4 Communication equipment	2	2	1	No communication equipment (telephones, faxes etc.) for SWM staff is provided.
					2	Communication equipment (telephones, faxes etc.) for SWM staff is provided but not sufficient.
					3	Some communication equipment (telephones, faxes etc.) for SWM staff is provided.
	Property	3-5 Vehicles	2	2	1	No vehicles for SWM staff are provided.
					2	Vehicles for SWM staff are provided but not sufficient.
					3	Some vehicles for SWM staff are provided.
					4	Vehicles for SWM staff are provided sufficiently.
		Total score (A)	14	15		
		Target (B)				
		Achievement (AB)				
	Finance	4-1 Budget for operation & management	1	1	1	No necessary budget for collection work, disposal site management, communication with citizens
					2	There is budget for collection work, disposal site, and communications but not enough to implement work
					3	There is budget for collection work and disposal site management but not enough for renewal of vehicles
					4	There is enough budget for collection work and disposal site management
		4-2 budget for human resources		2.5	3	1	No necessary budget for human resources
					2	There is budget for human resources but not enough
					3	Some staff are employed with external fund
	Information/ Data Management	Total score (A)	3.5	4		
		Target (B)				
		Achievement (AB)				
		document management	3	3	1	No documents on SWM are not stored
					2	Documents on SWM are stored but no clear rules
					3	There are rules of documents management to some extent and some documents are stored
					4	There are rules of documents management and documents are stored
	Information/ Data Management	Accumulation of past data on SWM	2	2	1	No past data on SWM accumulated.
					2	Past data on SWM accumulated but not sufficient.
					3	Past data on SWM accumulated to some extent.
					4	Past data on SWM accumulated sufficiently.
		Accumulation of past data on facilities of SWM	2	2	1	No past data of facilities (final disposal sites, collection vehicles etc.) of SWM is accumulated.
					2	Past data of facilities is accumulated but not sufficient.
					3	Past data of facilities is accumulated to some extent.
	Communication	Present data of final disposal site	2	2	1	No present data of final disposal site is collected.
					2	Present data of final disposal site is collected but not sufficient.
					3	Present data of final disposal site is collected to some extent.
					4	Present data of final disposal site is collected sufficiently.
		Literatures/references of SWM	3	2	1	No literatures/references on SWM is collected.
					2	Literatures/references on SWM is collected but not sufficient.
					3	Literatures/references on SWM is collected to some extent.
	Communication	Total score (A)	12	11		
		Target (B)				
		Achievement (AB)				
		Coordination of related agencies	2	4	1	No leadership to coordinate related agencies is shown.
					2	Communication/Leadership to coordinate related agencies is shown but not sufficient.
					3	Communication/Leadership to coordinate related agencies is shown to some extent.
					4	Communication/Leadership to coordinate related agencies is shown sufficiently.
	Communication	Communication/Leadership to municipalities	2	4	1	No Communication/Leadership to supervise/instruct guide municipalities is shown.
					2	Communication/Leadership to supervise/instruct guide municipalities is shown but not sufficient.
					3	Communication/Leadership to supervise/instruct guide municipalities is shown to some extent.
					4	Communication/Leadership to supervise/instruct guide municipalities is shown sufficiently.
		Communication/Leadership to business and citizen	2	3	1	No Communication/Leadership to guide businesses and citizen is shown.
					2	Communication/Leadership to guide businesses and citizen is shown but not sufficient.
					3	Communication/Leadership to guide businesses and citizen is shown to some extent.
	Communication	Total score (A)	6	11		
		Target (B)				
		Achievement (AB)				

BTC


CA Sheet (Organization)						
Category	Class	Evaluation item	Score Sep 2011	Score Aug 2015	Grade	Evaluation standard Standard
Organization	Structure of Organization	1-1 Structure of organizations	2	2	1	No Departments/Units for required roles.
					2	Some Departments/Units for required roles but not sufficient.
					3	Departments/Units for required roles existing to some extent.
					4	Departments/Units for required roles existing almost completely.
		1-2 Roles of departments/units	2	2	1	Roles of each departments/units are not clear.
					2	Roles of each departments/units are partly clear but not stipulated by documents.
	Human resources				3	Roles of each departments/units are stipulated by documents to some extent.
					4	Roles of each departments/units are clearly stipulated by documents.
		1-3 Appropriateness of staff arrangement	2	2	1	Staff personnel for SWM are not provided.
					2	Staff personnel for SWM are provided but not sufficient.
					3	Necessary staff personnels for SWM are provided to some extent.
					4	Sufficient staff personnel for SWM are provided.
		Total score (A)	6	6		
		Target (B)				
		Achievement (A/B)				
	Property	2-1 Technical	1	2	1	No staff personnel with technical knowledge and skills on SWM exist.
					2	Staff personnel with technical knowledge and skills on SWM exist but not sufficient.
					3	Some staff personnel with technical knowledge and skills on SWM exist.
					4	Sufficient staff personnel with technical knowledge and skills on SWM exist.
		2-2 Finance & Accounts	2	2	1	No staff personnel with the knowledge and skills of finance and accounts on SWM exist.
					2	Staff personnel with the knowledge and skills of finance and accounts on SWM exist but not sufficient.
					3	Some staff personnel with the knowledge and skills of finance and accounts on SWM exist.
					4	Sufficient staff personnel with the knowledge and skills of finance and accounts on SWM exist.
		2-3 Public awareness	1	2	1	No staff personnel with the knowledge and skills of public awareness on SWM exist.
					2	Staff personnel with the knowledge and skills of public awareness on SWM exist but not sufficient.
					3	Some staff personnel with the knowledge and skills of public awareness on SWM exist.
					4	Sufficient staff personnel with the knowledge and skills of public awareness on SWM exist.
		2-4 General affairs	1	2	1	No staff personnel with the knowledge of general affairs exist.
					2	Staff personnel with the knowledge of general affairs exist but not sufficient.
					3	Some staff personnel with the knowledge of general affairs exist.
					4	Sufficient staff personnel with the knowledge of general affairs exist.
		Total score (A)	5	8		
		Target (B)				
		Achievement (A/B)				
	Finance	3-1 Office space	1	3	1	No office space for SWM staff is provided. (only for supervisor)
					2	Office space for SWM staff is provided but not sufficient.
					3	Some office space for SWM staff is provided.
					4	Sufficient office space for SWM staff is provided.
		3-2 Stationaries	1	3	1	No office furniture (desks, lockers etc.) for SWM staff is provided.
					2	Office furniture (desks, lockers etc.) for SWM staff is provided but not sufficient.
					3	Some office furniture (desks, lockers etc.) for SWM staff is provided.
					4	Sufficient office furniture (desks, lockers etc.) for SWM staff is provided.
		3-3 OA equipment	1	3	1	No OA equipment (computers, printers etc.) for SWM staff is provided.
					2	OA equipment (computers, printers etc.) for SWM staff is provided but not sufficient.
					3	Some OA equipment (computers, printers etc.) for SWM staff is provided.
					4	Sufficient OA equipment (computers, printers etc.) for SWM staff is provided.
	Information management	3-4 Communication equipment	1	2	1	No communication equipment (telephones, faxes etc.) for SWM staff is provided.
					2	Communication equipment (telephones, faxes etc.) for SWM staff is provided but not sufficient.
					3	Some communication equipment (telephones, faxes etc.) for SWM staff is provided.
					4	Communication equipment (telephones, faxes etc.) for SWM staff is provided sufficiently.
		3-5 Vehicles	2	2	1	No vehicles for SWM staff are provided.
					2	Vehicles for SWM staff are provided but not sufficient.
					3	Some vehicles for SWM staff are provided.
					4	Vehicles for SWM staff are provided sufficiently.
		Total score (A)	6	13		
		Target (B)	15			
		Achievement (A/B)				
	Communications	4-1 Budget for operation & management	2	3	1	No necessary budget for collection work, disposal site management, communication with citizens.
					2	There is budget for collection work, disposal site, and communications but not enough to implement work.
					3	There is budget for collection work and disposal site management but not enough for renewal of vehicles.
					4	There is enough budget for collection work and disposal site management.
		4-2 budget for human resources		2	2	1	No necessary budget for human resources.
					2	There is budget for human resources but not enough.
					3	Some staff are employed with external fund.
					4	There is budget for human resources.
		Total score (A)		4	5	
		Target (B)		6		
		Achievement (A/B)				
		document management		2	2	1	No documents on SWM are not stored.
					2	Documents on SWM are stored but no clear rules.
					3	There are rules of documents management to some extent and some documents are stored.
					4	There are rules of documents management and documents are stored.
	Information management	Accumulation of past data on SWM	1	3	1	No past data on SWM accumulated.
					2	Past data on SWM accumulated but not sufficient.
					3	Past data on SWM accumulated to some extent.
					4	Past data on SWM accumulated sufficiently.
		Accumulation of past data on facilities of SWM	1	2	1	No past data of facilities (final disposal sites, collection vehicles etc.) of SWM is accumulated.
					2	Past data of facilities is accumulated but not sufficient.
					3	Past data of facilities is accumulated to some extent.
					4	Past data of facilities is accumulated sufficiently.
		Present data of final disposal site	2	3	1	No present data of final disposal site is collected.
					2	Present data of final disposal site is collected but not sufficient.
					3	Present data of final disposal site is collected to some extent.
					4	Present data of final disposal site is collected sufficiently.
	Information management	Literatures/reference s of SWM	2	2	1	No literatures/references on SWM is collected.
					2	Literatures/references on SWM is collected but not sufficient.
					3	Literatures/references on SWM is collected to some extent.
					4	Literatures/references on SWM is collected sufficiently.
		Total score (A)	8	12		
		Target (B)	15			
		Achievement (A/B)				
	Communications	Coordination of related agencies	2	2	1	No leadership to coordinate related agencies is shown.
					2	Leadership to coordinate related agencies is shown but not sufficient.
					3	Leadership to coordinate related agencies is shown to some extent.
					4	Leadership to coordinate related agencies is shown sufficiently.
		Communications with to business and citizen	1	2	1	No communication routs with businesses and citizen.
					2	There are communication tools with businesses and citizen, but not sufficient.
					3	Communication to guide businesses and citizen is shown to some extent.
					4	Communication to guide businesses and citizen is shown sufficiently.
		Total score (A)	3	4		
		Target (B)	9	9		
		Achievement (A/B)				

4.3 Tonga

Capacity Assessment in cooperation with C/P organizations

1. Implementation procedure

The capacity assessment were conducted in cooperation with C/P organizations. The outline of implementation procedure is shown in the following table.

Target of assessment	<p>① Self-assessment of individual/organizational capacity: MLECCNR Vava'u district C/P (Ms. Winnie, Ms. Mele), MoH Vava'u District Health Inspector (Mr. Manase)</p> <p>② Social capacity assessment: residents of four (4) pilot communities of community-based garbage collection (30 % of total number of households in each community)</p> <table><thead><tr><th>Name of community</th><th>Total number of households</th><th>Target number of households</th></tr></thead><tbody><tr><td>Kameli</td><td>213</td><td>70</td></tr><tr><td>Leimatu'a</td><td>213</td><td>70</td></tr><tr><td>Tu'anekevile</td><td>85</td><td>30</td></tr><tr><td>Longomapu</td><td>112</td><td>40</td></tr></tbody></table>	Name of community	Total number of households	Target number of households	Kameli	213	70	Leimatu'a	213	70	Tu'anekevile	85	30	Longomapu	112	40
Name of community	Total number of households	Target number of households														
Kameli	213	70														
Leimatu'a	213	70														
Tu'anekevile	85	30														
Longomapu	112	40														
Implementation schedule / Methods	<div><div><ul style="list-style-type: none">- Self-assessment of individual/organizational capacityC/P filled in the Capacity Inventory (CI), which was used in both 1st and 2nd Assessments (30 Jul. 2015 – 4 Aug. 2015)- Based on the results of self-assessment done by C/P, JICA Expert had a interview with each C/P and made comments from an objective viewpoint (5-6 Aug. 2015)① Social capacity assessment<ul style="list-style-type: none">- The contents of questionnaire, which was used for the 1st Social CA survey conducted in Sep. 2014, was reviewed by MEIDECC C/P (16 Jul. 2015)- The Project requested Waste (VEVE) Committee to select two or three people to conduct a questionnaire survey.- MEIDECC C/P conducted a training for all surveyors, explaining of implementation procedure and reporting and confirming of each question. (17 Jul. 2015)- Implementation schedule was as shown below:<div><div><div>1) Implementation: 18 - 22 Jul. 2015</div><div>2) Making a report by the Committee: 23 Jul. 2015</div><div>3) Submission of the report, payment of wages: 24 Jul. 2015</div><div>4) Analysis and making report by J-PRISM Expert</div></div><div>Training for surveyors (17 Jul. 2015)</div></div></div><div></div></div>															



2. Results

The results of the 2nd assessment are shown below.

1) Self-assessment of individual/organizational capacity

Assessment items composed of the following categories. Check points of capacity are defined according to the planned project activities.

1. Waste Management	1-1. Basic information on SWM
	1-2. National policies and legislations
	1-3. Waste Management Plan
2. Organizations	2-1. Political will
	2-2. Awareness level of top management
	2-3. Organizational structure
	2-4. Decision-making mechanism
	2-5. Allocation of duties
	2-6. Number of staff
	2-7. Training
	2-8. Communication between top management and other departments
3. Outsourcing services to the private contractor	3-1. Contracts
	3-2. Services under contract
	3-3. Monitoring status
	3-4. Supervision
	3-5. Cost calculation
4. Collection and transportation	4-1. Basic information
	4-2. Current status
	4-3. Areas and populations
	4-4. Pilot project
	4-5. Garbage collection plan
	4-6. Collection work
	4-7. Plan and method for vehicle operation management
	4-8. Supervision
	4-9. Awareness for garbage collection
	4-10. Collection equipment
5A. Final disposal (rehabilitation)	5-1. Daily inspection
	5-2. Rehabilitation plan
	5-3. EIA procedure
	5-4. Land matters
5B (1) Operation and maintenance of final disposal site	5-5. Embankment
	5-6. Access road
	5-7. Soil covering
	5-8. Drainage of surface water
	5-9. Control of incoming waste
	5-10. Leachate treatment
	5-11. Waste disposal amount
	5-12. Landfill development plans
	5-13. Landfill equipment
	5-14. Waste pickers
	5-15. Water monitoring
	5-16. Manual
	5-17. Monitoring system
6. Soft components	6-1. Customs and Classes

(Education/Awareness)	6-2. Social organizations
	6-3. Environmental education
	6-4. Involvement of mass media
	6-5. Partnership among stakeholders
	6-6. Reflection of community inputs in policies and services

The result of each counterpart is shown in the following table.

Name of C/P: Mrs. Feauini Veikoso Laumanu
(OIC, Vava'u District, Ministry of Environment and Communication (MEIDECC))

	Before Project	1st CA (Feb 2013)	2nd CA (Sep 2014)	3rd CA (Jul. 2015)
SWM in general	1.9	3.7	3.9	4.3
Organizations	1.8	3.6	4.0	4.4
Working with private sectors	2.2	3.6	4.0	4.2
Waste collection	2.5	3.7	4.0	5.0
Final disposal (rehabilitation)	2.6	3.8	4.0	4.0
Final disposal (operation/maintenance)	2.7	3.7	4.0	4.0
Education/awareness	3.0	3.7	4.0	5.0

[Comments on self-assessment (by C/P)]

I find the J-PRISM project taught me so many capacities as I highlighted above. My wish is that the Ministry and community make us of all the experiences that I have been develop from the first day of this project and more for the future to assist the problem of Vava'u with SWM.I really gain more experience and capacity and look forward to serve the people of Vava'u with the SWM to the best of my ability.

[Recommendations for J-PRISM Expert and the Project (by C/P)]

Really awesome J-PRISM expert Yurie-san is very talented with so many experience and methods to almost everything of SWM. I look forward for close update of the future work to and from the expert to assist us getting more and more good practices of SWM in Vava'u and the Kingdom of Tonga.

[Comments from J-PRISM Expert]

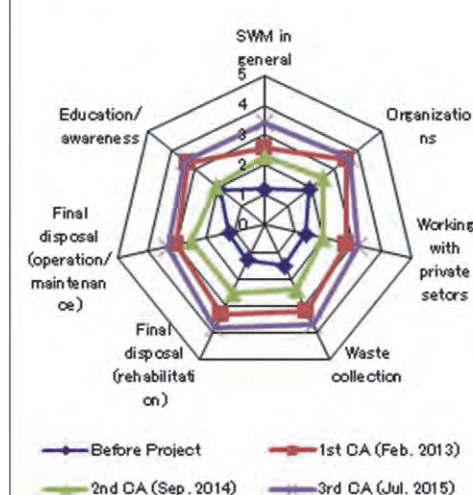
It is also noted that the organizational capacity was recognized as the lowest score before the project, however, it has been obviously increased. In Sep. 2014, MEIDECC allocated one more environment officer who has some work experience in the environmental field. Also, one secretary has been assigned for administration work since May 2015. These additional staffs made Winnie's workloads less by sharing works. Another contribution factor for the increase of organizational capacity is that MEIDECC could manage to secure TOP\$15,000 for implementation of project activities for FY2015/2016. This great news really motivates all MEIDECC staff. The support of MEIDECC main office is quite necessary for implementation of SWM in Vava'u.

She has strong confident on her ability in two components, namely waste collection and education/awareness. She gained sufficient knowledge and experience in these fields through the on-the-job training during implementation of project activities in Vava'u and two regional trainings which were held in Fiji in Nov. 2014 and Okinawa in Jun. 2015. She has been nominated as a local expert in both two fields. As she mentioned, she is expected to share her knowledge and experience not only with regional counterparts but also with in-country ones as there is a big demand for Vava'u model in

Tonga and other pacific countries.

Name of C/P: **Mr. Manase Malua**
(Public Health Inspector gr-1, Prince Wellington Ngu Hospital, Ministry of Health)

	Before Project	1st CA (Feb 2013)	2nd CA (Sep. 2014)	3rd CA (Jul. 2015)
SWM in general	1.2	2.6	2.3	3.4
Organizations	1.9	3.5	2.5	3.6
Working with private sectors	1.4	2.8	2.0	3.2
Waste collection	1.5	3.2	2.4	3.7
Final disposal (rehabilitation)	1.3	3.3	2.5	3.8
Final disposal (operation/maintenance)	1.2	3	2.5	3.3
Education/awareness	1.9	3.3	2.1	3.4



[Comments on self-assessment (by C/P)]

I wish to explain the reason why the graph increased at first and decreased after training in Japan. Definitely, I marked up the scores according to my own knowledge, experience and clear understanding about waste management, on that time, say best of my understanding. After training in Japan I found out my local understanding worth almost nothing. THAT'S WHY I DROPPED THE SCORES DOWN at the second graph showed the real situation of my understanding for more ideas and acknowledge gain from training, starting point of developing and improvement. I can tell the difference between before and after training in Japan.

Kalaka landfill has been improving to a sustainable operation and maintenance. Since 2011, more than 50% of the operation is undertaken by the Ministry of Health. Honorable Minister and Director of Health, Governor of Vava'u are really involved in Kalaka improvement whilst the Ministry of Health increases the annual budget from \$5,000 to \$8,000 this year (FY2015/2016). Also, one more staff to be allocated for Kalaka landfill.

[Recommendations for J-PRISM Expert and the Project (by C/P)]

Yurie-san is doing really good indeed and the Project is well known by the people of Vava'u even school children. Still need her for onward going of the project

[Comments from J-PRISM Expert]

While Mr. Manase's overall score decreased for self-assessment from 1st to 2nd CA, several areas showed a decrease in average. According to the discussion between J-PRISM expert and Mr. Manase, the main reason for this drop can be attributed to that 1st CA was conducted just after 2.5-months SWM training in Japan and the completion of rehabilitation work at Kalaka landfill. He was quite confident in all SWM components during 1st CA, however, he found that some of knowledge and techniques he gained through Japan training were not applicable to the situation of Vava'u, and he felt the need of further improvement of all components, even though he contributed a lot to better management of final disposal.

He seems still humbly regard himself as having room to improve in all, but finally ranked himself the best score in each component in the final 3rd CA, that is generally considered to be quite accurate. I still remember him when the project started. Mr. Manase was just sitting and listening voices of other audience during any meetings and workshops. However, we now witness that he is sometimes leading conversations by showing his commitment, that's a great change.

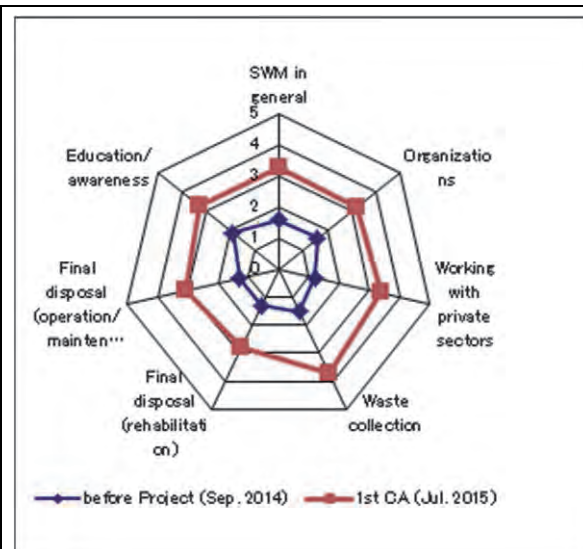
Kalaka landfill management totally depends on Mr. Manase's commitment and the support of MoH main office. The increase of Kalaka budget to TOP\$8,000 is really encouraging news for us although that was only TOP\$1,000 when the project started. We hope the commitment of MoH main office will

last even the project ends this year.

Name of C/P : **Ms. Mele Finau**

(Environment Officer, Vava'u District, Ministry of Environment and Communication (MEIDECC))

	before Project (Sep. 2014)	1st CA (Jul. 2015)
SWM in general	1.6	3.3
Organizations	1.6	3.2
Working with private sectors	1.2	3.4
Waste collection	1.5	3.7
Final disposal (rehabilitation)	1.3	2.8
Final disposal (operation/maintenance)	1.3	3.1
Education/awareness	1.9	3.3



[Comments on self-assessment (by C/P)]

Based on this capacity assessment, I still need more skills for some parts such as mechanisms and resources or technique that suitable to different parts of the project. Coordination with other stakeholders is indeed important and this is the missing part that I don't have much experience on that. Some of the issues regarding for the disposal sites is still weak and I need to improve my skills to learn more about Kalaka operation and management.

[Recommendations for J-PRISM Expert and the Project (by C/P)]

Before I joined to this project, I witnessed many different kinds of waste been lying around roadside, communities always burn their wastes. I resumed last year and leaned many challenges of doing this project but after all, there is a change in people's mindset, the environment is more clean, schools is also joined in.

Overall this project has taught the community to know the waste management system as in progress in Vava'u. The awareness programs approach to communities that help people to segregate and try to minimize of waste. This appropriate system and project is very simple, easy and costless and it will be a good sample for some islands in Tonga as well as the Pacific to implement.

[Comments from J-PRISM Expert]

Ms. Mele joined in MEIDECC in Sep. 2014, and her passion and commitment to the project gave us positive impacts. Her background and work experience gained by VEPA is also advantage for her. Her knowledge and experience in SWM is still in the learning process but she has already gained a lot through the project, particularly in two fields, namely community-based garbage collection and clean school program. She is already an indispensable person to us and the project as a member of Vava'u VEVE team! I as J-PRISM Expert, look forward to even further growth from you from now on.

REPORTS ON SOCIAL CAPACITY QUESTIONNAIRE SURVEY

J-PRISM Tonga

1. IMPLEMENTATION PROCEDURE

1.1 Procedure

1) Questionnaire was examined according to the following survey results

- Public Opinion Survey, which was conducted in 2011 as a part of baseline survey.

- Questionnaire survey for residents living in four (4) pilot communities with community-based garbage collection.

2) The draft questionnaire was finalized by reflecting the views of C/P and representatives of Waste (VEVE) Committee members.

3) The Project requested Waste (VEVE) Committee to select two or three people to conduct a questionnaire survey.

4) The Project conducted training for all surveyors, explaining of implementation procedure and reporting and confirming of each question.

1.2 Schedule

- 1st Capacity Assessment (1st CA : 17 September 2014 – 25 September 2014

- 2nd Capacity Assessmnt (2nd CA : 17 July 2015 – 24 July 2015

1.3 Targets

- Residents of four (4) pilot communities of community-based garbage collection (30 % of total number of households in each community)

NAME of COMMUNITY

Kameli

Leimatu'a

Tu'anekevile

Longomapu

Total No. of H.H

Target No. of H.H

Total No. of H.H

Target No. of H.H

Total No. of H.H

Target No. of H.H

Total No. of H.H

Target No. of H.H

213

70

218

70

88

30

121

40

2. RESULTS

QUESTIONS

Q.1 Do you think that waste is a problem in Vava'u?

Kameli

Leimatu'a

Tu'anekevile

Longomapu

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

lo

67

96%

64

91%

69

99%

69

99%

24

80%

30

100%

40

100%

40

100%

Ikai

1

1%

0

0%

1

1%

1

1%

1

3%

0

0%

0

0%

0

0%

Not sure

2

3%

6

9%

0

0%

5

17%

0

0%

0

0%

0

0%

Total

70

100%

70

100%

70

100%

70

100%

30

100%

30

100%

40

100%

40

100%

Community-based garbag collection (Hiko VEVE)

Q.2 Do you know your community has established a VEVE Committee?

Kameli

Leimatu'a

Tu'anekevile

Longomapu

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

lo

69

99%

70

100%

66

94%

69

99%

30

100%

29

97%

40

100%

40

100%

Ikai

1

1%

0

0%

4

6%

1

1%

0

0%

1

3%

0

0%

0

0%

0

0%

Not sure

0

0%

0

0%

0

0%

0

0%

0

0%

0

0%

0

0%

Total

70

100%

70

100%

70

100%

70

100%

30

100%

30

100%

40

100%

40

100%

Q.3 Do you know your VEVE Committee conducts a Hiko VEVE in your community?

Kameli

Leimatu'a

Tu'anekevile

Longomapu

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

lo

69

99%

65

93%

69

99%

69

99%

30

100%

26

87%

40

100%

40

100%

Ikai

1

1%

3

4%

1

1%

1

1%

0

0%

4

13%

0

0%

0

0%

0

0%

Not sure

0

0%

2

3%

0

0%

0

0%

0

0%

0

0%

0

0%

Total

70

100%

70

100%

70

100%

70

100%

30

100%

30

100%

40

100%

40

100%

Q.4. Do you know the frequency of Hiko VEVE ?

Kameli

Leimatu'a

Tu'anekevile

Longomapu

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

lo

55

79%

65

93%

59

84%

61

87%

27

90%

21

70%

40

100%

40

100%

Ikai

14

20%

3

4%

3

4%

9

13%

2

7%

9

30%

0

0%

0

0%

Not sure

1

1%

2

3%

8

11%

0

0%

1

3%

0

0%

0

0%

0

0%

Total

70

100%

70

100%

70

100%

70

100%

30

100%

30

100%

40

100%

40

100%

Q.5. Do you know the collection day?

Kameli

Leimatu'a

Tu'anekevile

Longomapu

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

lo

54

77%

65

93%

43

61%

61

87%

27

90%

21

70%

40

100%

40

100%

Ikai

14

20%

3

4%

21

30%

19

27%

2

7%

9

30%

0

0%

0

0%

Not sure

2

3%

2

3%

6

9%

0

0%

1

3%

1

3%

0

0%

0

0%

Total

70

100%

70

100%

70

100%

70

100%

30

100%

31

103%

40

100%

40

100%

Q.6. Do you know the collection time ?

Kameli

Leimatu'a

Tu'anekevile

Longomapu

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

lo

50

71%

64

91%

37

53%

56

80%

26

87%

13

43%

40

100%

40

100%

Ikai

18

26%

4

6%

21

30%

14

20%

3

10%

17

57%

0

0%

0

0%

Not sure

2

3%

2

3%

11

16%

0

0%

1

3%

0

0%

0

0%

0

0%

Total

70

100%

70

100%

69

99%

70

100%

30

100%

30

100%

40

100%

40

100%

Q.7. Have you ever discharged VEVE to Hiko VEVE conducted by VEVE Committee ?

Kameli

Leimatu'a

Tu'anekevile

Longomapu

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

lo

56

80%

58

83%

59

84%

59

84%

29

97%

24

80%

34

85%

40

100%

Ikai

13

19%

11

16%

11

16%

11

16%

1

3%

6

20%

6

15%

0

0%

Not sure

1

1%

1

1%

0

0%

0

0%

0

0%

0

0%

0

0%

Total

70

100%

70

100%

70

100%

70

100%

30

100%

30

100%

40

100%

40

100%

Q.8. If YES to Q7, how often?

Kameli

Leimatu'a

Tu'anekevile

Longomapu

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

Sep. 2014

Jul. 2015

1) Every collection day

32

57%

48

83%

36

61%

40

68%

18

62%

10

42%

19

56%

25

63%

2) Sometimes (2)Irregularly, 3)once a few times)

8

14%

10

17%

12

20%

19

32%

11

38%

10

42%

14

41%

14

35%

3) Others

16

29%

0

0%

11

19%

0

0%

0

0%

4

17%

1

3%

1

3%

Total

56

100%

58

100%

59

100%

59

100%

29

100%

24

100%

34

100%

40

100%

Q.9. If NO to Q7, why?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
1) No waste (burying or feeding pigs and dogs)	1	6%	7	64%	1	4%	7	64%	0	0%	4	27%
2) I am taking my waste to Kalaka dumpsite	7	41%	3	27%	1	4%	2	18%	0	0%	2	13%
3) I don't want to pay money	1	6%	0	0%	11	44%	0	0%	0	0%	0	0%
4) I don't have a platform for my house	0	0%	0	0%	6	24%	2	18%	0	0%	3	20%
5) I am busy so I can't adjust my schedule to current Hiko VEVE system	4	24%	0	0%	3	12%	0	0%	0	0%	3	20%
6) I don't know about Hiko VEVE system in my community	4	24%	1	9%	2	8%	0	0%	1	100%	3	20%
7) Others	0	0%	0	0%	1	4%	0	0%	0	0%	0	0%
Total	17	100%	11	100%	25	100%	11	100%	1	100%	15	100%
Q.10. How did you get information related to Hiko VEVE?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
1) Community meetings	27	39%	10	14%	1	1%	1	1%	12	40%	12	40%
2) House-to-house visits conducted by VEVE Committee	13	19%	0	0%	1	1%	6	9%	3	10%	3	10%
3) Announcement done by VEVE Committee on collection days	11	16%	54	77%	62	87%	61	87%	10	33%	10	33%
4) From neighbours	16	23%	1	1%	2	3%	2	3%	4	13%	4	13%
5) Others	3	4%	5	7%	5	7%	0	0%	1	3%	1	3%
Total	70	100%	70	100%	71	100%	70	100%	30	100%	30	100%
Metals (KAPA) recycling												
Q.11. Do you separately discharge VEVE and KAPA?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
lo	52	74%	56	80%	63	90%	63	90%	26	87%	22	73%
Ikai	18	26%	13	19%	0	0%	7	10%	4	13%	8	27%
Not sure	0	0%	1	1%	7	10%	0	0%	0	0%	0	0%
Total	70	100%	70	100%	70	100%	70	100%	30	100%	30	100%
Q.12. If YES to Q11, how often do you discharge KAPA?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
1) Every collection day	21	40%	44	79%	29	46%	43	68%	18	69%	9	41%
2) Sometimes (2)Irregular, 3)once a few times	25	48%	12	21%	25	40%	20	32%	8	31%	9	41%
3) Others	6	12%	0	0%	9	14%	0	0%	0	0%	4	18%
Total	52	100%	56	100%	63	100%	63	100%	26	100%	22	100%
Q.13. If NO to Q11, why?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
1) Not much KAPA	5	14%	5	14%	4	50%	1	14%	2	50%	2	17%
2) I am taking KAPA to Gio by myself	6	17%	6	17%	1	13%	2	29%	0	0%	0	0%
3) I feel hassle to separate VEVE and KAPA	18	51%	18	51%	0	0%	0	0%	2	50%	6	50%
4) I don't know about Hiko KAPA system in my community	6	17%	6	17%	3	38%	4	57%	0	0%	4	33%
5)Others	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	35	100%	35	100%	8	100%	7	100%	4	100%	12	100%
Finance												
Q.14. Do you understand Hiko VEVE require a cost?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
lo	65	93%	67	96%	N/A	N/A	28	93%	25	83%	40	100%
Ikai	5	7%	1	1%			2	7%	5	17%	0	0%
Not sure	0	0%	2	3%			0	0%	0	0%	0	0%
Total	70	100%	70	100%			30	100%	30	100%	40	100%
Q.15. Have you ever paid a fee to VEVE Committee for Hiko VEVE?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
lo	65	93%	58	83%	N/A	N/A	24	80%	25	83%	39	98%
Ikai	5	7%	12	17%			6	20%	5	17%	1	3%
Not sure	0	0%	0	0%			0	0%	0	0%	0	0%
Total	70	100%	70	100%			30	100%	30	100%	40	100%
Q.16. If YES to Q15, how often?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
1) Every collection day	19	29%	20	34%	N/A	N/A	10	42%	4	18%	0	0%
2) Every month	15	23%	29	50%			4	17%	6	27%	39	100%
3) Sometimes (2)Irregular, 3)once a few times	15	23%	9	16%			10	42%	11	50%	0	0%
4) Others	16	25%	0	0%			0	0%	1	5%	0	0%
Total	65	100%	58	100%			24	100%	22	100%	39	100%
17. If YES to Q15, how much?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
1) TOP\$5.00 or more	46	71%	12	21%	N/A	N/A	19	79%	19	86%	0	0%
2) More than TOP\$1.00 but less than TOP\$5.00	6	9%	46	79%			5	21%	3	14%	39	100%
3) Less than TOP\$1.00	13	20%	0	0%			0	0%	0	0%	0	0%
Total	65	100%	58	100%			24	100%	22	100%	39	100%
Q.18. If NO to Q15, why?												
	Kameli		Leimatu'a		Tu'anekevile		Longomapu					
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015				
1) I can't afford to pay	8	47%	1	8%	N/A	N/A	1	17%	1	13%	1	100%
2) I don't want to pay	8	47%	8	67%			4	67%	4	50%	0	0%
3) I don't trust VEVE Committee	1	6%	0	0%			1	17%	1	13%	0	0%
4) Others	0	0%	3	25%			0	0%	2	25%	0	0%
Total	17	100%	12	100%			6	100%	8	100%	1	100%

Impacts caused by Hiko VEVE																
Q.19. Are there any differences at your home or in your community after Hiko VEVE service started?																
	Kameli				Leimatu'a				Tu'anekevale				Longomapu			
	Sep. 2014		Jul. 2015		Sep. 2014		Jul. 2015		Sep. 2014		Jul. 2015		Sep. 2014		Jul. 2015	
lo	61	87%	59	84%	68	97%	68	97%	28	93%	27	90%	40	100%	40	100%
Ikai	9	13%	0	0%	2	3%	2	3%	2	7%	3	10%	0	0%	0	0%
Not sure		0%	11	16%		0%		0%	0	0%	0	0%	0	0%	0	0%
Total	70	100%	70	100%	70	100%	70	100%	30	100%	30	100%	40	100%	40	100%
Q.20. If YES to Q19, what kinds of changes occurred?																
	Kameli				Leimatu'a				Tu'anekevale				Longomapu			
	Sep. 2014		Jul. 2015		Sep. 2014		Jul. 2015		Sep. 2014		Jul. 2015		Sep. 2014		Jul. 2015	
1) My home got cleaned and looks better	44	63%	35	88%	26	37%	42	62%	9	32%	9	30%	2	5%	22	55%
2) Environment of my community become cleaner (less scattered waste)	14	20%	17	43%	33	47%	24	35%	11	39%	19	63%	38	95%	14	35%
3) Good education and awareness for all the family members and community	2	3%	3	8%	10	14%	1	1%	0	0%	0	0%	0	0%	1	3%
4) Community become more unite	4	6%	4	10%	1	1%	1	1%	0	0%	2	7%	0	0%	2	5%
5) Others (6	9%	0	0%		0%		0%	8	29%	0	0%	0	0%	1	3%
Total	70	100%	40	100%	70	100%	68	100%	28	100%	30	100%	40	100%	40	100%
Q.21. Any requests, comments and suggestions for your HIKO VEVE system																
Kameli:																
<Sep. 2014>																
- Education the people																
- Inhouse training is needed																
- Need own truck for hikoveve																
- Need more awareness for hiko veve system																
- Do not reduce the collection fee																
- Need to announce before collection day																
Leimatu'a																
<Sep. 2014>																
- Hiko veve should be done twice a month																
- Need plastic bags for separation of waste																
- Need bins for public area																
- Keep on doing the hiko veve																
Tu'anekevale																
<Sep. 2014>																
- I have a great support for the Hikoveve program. I wish the committee will have a long run in this project,																
- Every household are still need to pay their \$2.00 per month in order for the committee to manage every cost in taking of rubbish to Kalaka.																
- Suggest our community should be funded with Rubbish bins,																
- We need more plastic bags fro our hikoveve so that we can be able to separate the kapa /plastic from veve,																
- Tu'anekevale veve committee to always keep our community clean and become unite in the future,																
- Request to our hikoveve committee to make sure that they do their hikoveve according the time table has shown in the veve committee's calender.																
- If there will be some rubbish bin around the main road,																
Longomapu																
<Sep. 2014>																
- Hiko veve is very helpful for the community to become mor clean																
- Keep it up of doing hiko veve																
- Thanks for those who are willing to do hiko veve																
- Need more dust bin and wheel barrow																
<Jul. 2015>																
- Give awareness to community how to segregate wastes.																
- We hope that there is a collection truck																
- Need more funds and aids for Veve Program																
- Need more cages for kapa collection																
- Encourage people to participate in the Hiko veve program																
- Awareness raising to community by encourage them to avoid bringing of plastic bags from shops and market.																
<Jul. 2015>																
- We need the commitment of the community to raise some funds.																
- Veve committees should provide nylon sacks for veve collection																
- This hiko veve program need to continue on to the future																
- Stop this Hiko Veve Program																
- Make a policy that will avoid people from littering																
<Jul. 2015>																
- Veve Committee not rully responsible for the hiko veve program																
- Calendar will notify us the day of collection and time that collecting truck don't often remember our homes during collection.																
- Need some proper collection materials for collecting our wastes																
- Veve committee must aware of the time of collection.																

KALAKA final disposal														
Q.22. Do you know Kalaka final disposal site ?														
	Kameli				Leimatu'a				Tu'anekevile				Longomapu	
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015
lo	62	89%	66	94%	54	77%	61	87%	27	90%	30	100%	40	100%
Ikai	8	11%	4	6%	8	11%	9	13%	3	10%	0	0%	0	1%
Not sure		0%		0%	8	11%	0	0%	0	0%		0%	0	0%
Total	70	100%	70	100%	70	100%	70	100%	30	100%	30	100%	40	100%
Q.23. If YES to Q22, have you ever been to Kalaka ?														
	Kameli				Leimatu'a				Tu'anekevile				Longomapu	
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015
lo	56	80%	63	90%	48	69%	61	87%	21	70%	21	70%	23	58%
Ikai	14	20%	3	4%	20	29%	0	0%	6	20%	9	30%	17	43%
Not sure	0	0%	0	0%	2	3%	0	0%	3	10%	0	0%	0	0%
Total	70	100%	66	94%	70	100%	61	87%	30	100%	30	100%	40	98%
Q.24. If YES to Q22, what was your impression ?														
	Kameli				Leimatu'a				Tu'anekevile				Longomapu	
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015
1) Same as before (no change)	1	2%	8	13%	48	69%	8	13%	1	5%	1	5%	0	0%
2) Improved	32	62%	12	19%	20	29%	41	67%	12	57%	12	57%	23	100%
3) Need more improvements	19	37%	43	68%	2	3%	11	18%	6	29%	6	29%	0	0%
4) Others (	0	0%	0	0%		0%	1	2%	2	10%	2	10%	0	0%
Total	52	100%	63	100%	70	100%	61	100%	21	100%	21	100%	23	100%
Q.25. What is your concerns for Kalaka?														
	Kameli				Leimatu'a				Tu'anekevile				Longomapu	
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015
1) Negative impacts for the surrounding areas (smoke, water, etc)	20	29%	6	9%	11	16%	12	17%	8	38%	20	67%	17	43%
2) Should close ASAP and relocate it to other places	13	19%	2	3%	25	36%	16	23%	2	10%	6	20%	22	55%
3) Will become full soon	22	31%	51	73%	30	43%	31	44%	11	52%	4	13%	0	0%
4)Others (	15	21%	11	16%	4	6%	9	13%	0	0%		0%	0	0%
Total	70	100%	70	100%	70	100%	70	100%	21	100%	30	100%	40	100%
Q.26. Do you know operation days and hours of Kalaka disposal site ?														
	Kameli				Leimatu'a				Tu'anekevile				Longomapu	
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015
lo	46	66%	67	96%	18	26%	13	19%	11	37%	11	37%	17	43%
Ikai	22	31%	2	3%	44	63%	48	69%	16	53%	16	53%	39	98%
Not sure	2	3%	1	1%	8	11%	9	13%	3	10%	3	10%	0	1%
Total	70	100%	70	100%	70	100%	70	100%	30	100%	30	100%	40	100%
Q.27. Do you understand that Kalaka landfill operation and maintenace require a cost ?														
	Kameli				Leimatu'a				Tu'anekevile				Longomapu	
	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015
lo	49	70%	61	87%	36	51%	41	59%	11	37%	13	43%	19	48%
Ikai	20	29%	0	0%	25	36%	20	29%	15	50%	10	33%	13	33%
Not sure	1	1%	9	13%	9	13%	9	13%	4	13%	7	23%	8	20%
Total	70	100%	70	100%	70	100%	70	100%	30	100%	30	100%	40	100%
Q.28.Any requests, comments and suggestions for Kalaka														
Kameli:														
<Sep. 2014>														
- Need more workers														
- Upgrade the budget														
- Needs excavator / Loader														
- No more kapa (metals) for kalaka														
- Government should include more budget for the maintence and operation of Kalaka														
- Make a policy that will help people to minimize taking of metals and cans to														
- Give awareness to people about what types of wastes need to dispose in Kalaka.														
- Look for another land for the dumpsite.														
Leimatu'a														
<Sep. 2014>														
- Build a fence around to keep plastic bags inside Kalaka														
- Make the fence for Kalaka														
- Need a recycle machine for plastic bags and other waste														
- More labors to work for Kalaka														
- Recruit more workers														
- Need good machines such as Bulldozer for operation of Kalaka														
- Need a machinary for kalaka eg. Loader														
- A Proper Recycling Machine for Kapa and many heavy metals to Kalaka.														
Tu'anekevile														
<Sep. 2014>														
- Need to expand or extend the area to cater for the whole vava'u community														
- Do not burn Kalaka														
- Don't burn plastic bag and plastic container , Issue secure uniform for the labourer work at Kalaka.														
- People should wisely take only the type of veve need to discharge in Kalaka														
- Kalaka dumside take the lead in burning of their rubbish , we don't know what is the different of burning our rubbish in our own villiage rather than waste our money in take our rubbish to Kalaka but still burning. If we let the people to be aware of the dangerous of burning plastic bags and toxic waste than we act as a role model in not burning rubbish . Thanks for allowing a place to gather and manage our veve														
- Government need to promote more financial and budget for operation of														
- Community need to help Kalaka to minimize wastes														
Longomapu														
<Sep. 2014>														
<Jul. 2015>														
- We need to build a fence														
- Do not burn at Kalaka														
- Expand the land space of Kalaka for more disposal areas														
- Keep Kalaka Clean and avoid taking recycable wastes to Kalaka														

Others												
Q.29. Who should be responsible for VEVE in Vava'u ?												
	Kameli				Leimatu'a				Tu'anekevile		Longomapu	
	Sep. 2014	Jul. 2015			Sep. 2014	Jul. 2015			Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015
1) myself	17	34%	0	0%	4	6%	8	11%	15	50%	15	50%
2) VEVE Committee	13	26%	0	0%	13	19%	10	14%	5	17%	1	3%
3) MLECCNR	1	2%	31	44%	36	51%	44	63%	1	3%	9	23%
4) MoH	19	38%	37	53%	17	24%	8	11%	1	3%	1	3%
5) Others (	0	0%	2	3%	0	0%	0	0%	8	27%	0	0%
Total	50	100%	70	100%	70	100%	70	100%	30	100%	40	100%
Q.30. Do you know JICA Waste Management Project (J-PRISM) ?												
	Kameli				Leimatu'a				Tu'anekevile		Longomapu	
	Sep. 2014	Jul. 2015			Sep. 2014	Jul. 2015			Sep. 2014	Jul. 2015	Sep. 2014	Jul. 2015
Yes	53	76%	55	79%	26	37%	31	44%	12	40%	1	3%
Maybe	17	24%	11	16%	44	63%	39	56%	15	50%	39	98%
Not sure	0	0%	4	6%	0	0%	0	0%	3	10%	0	0%
Total	70	100%	70	100%	70	100%	70	100%	30	100%	40	100%
3. CONCLUSION												
<p>These four communities have started a community-based garbage collection since Sep. 2013 on a pilot scale, and 1st CA was conducted after 1 year since they started implementation, and 2nd CA was done after almost 2 years. The rehabilitation of Kalaka final disposal site was completed in Feb. 2013, and MoH has been operating the rehabilitated landfill since then. The social capacity assessment provided a good opportunity for the Project to know how people become aware of project activities, and feel its benefits.</p> <p>From the comparison between the results of 1st CA and those of 2nd CA, it is noted the following findings;</p> <p><Waste issues in general></p> <ul style="list-style-type: none">- Most of people feel that waste is a problem in Vava'u (over 90% of respondents) (Q.1) <p><Community-based garbage collection></p> <ul style="list-style-type: none">- People's awareness level on community-based garbage collection and recycling system is increased in Kameli, Leimatu'a and Longomapu while that is decreased in Tu'anekevile. (Q.2 - Q.8, Q.11 - Q.12)- Some people are still burning their waste instead of discharging waste to garbage collection provided by their own community. (Q.9)- Most of people gain necessary information regarding garbage collection from their Waste (VEVE) Committee through announcement on collection days and house-to house visit. (Q.10)- Some of people are not aware of metals recycling system in their community (Q.13)- More than 80% people understand that garbage collection requires a cost. (Q.14)- In Kameli and Longomapu, most of people pay more than TOP\$1.0 but less than TOP\$5.0 as a garbage collection fee every collection day. A few people still do not want to pay a fee (Q.15 - Q.18)- More than 90 % of people is aware of better and positive changes at their home and communities after community-based garbage collection started. (Q.19 - Q.20)- People feel the need of more awareness, some materials (nylon sacks, cages, wheel bins, collection truck, etc) and funds for implementation of garbage collection. Also, more communication between residents and their VEVE Committee is requested to provide necessary information on garbage collection. People is basically supporting and appreciating ongoing garbage collection system. (Q.21) <p><Kalaka final disposal site></p> <ul style="list-style-type: none">- People's awareness level on Kalaka final disposal site is increased in Kameli, Leimatu'a and Tu'anekevile, and more than 70 % of these three areas have been to Kalaka. Some of them notices the improvement, but still feel further improvements. (Q.22 - Q.24)- People's concern has been shifting from negative impacts caused by Kalaka and closure/relocation to the space limitation of Kalaka landfill. (Q.25)- Some people still do not know operation days, hours and operation cost needed for Kalaka (Q.26 - Q.27)- People requested not burning at Kalaka. People feel the need of more labors, funds, fence and heavy machinery to ensure proper landfill management and more awareness on 3R to reduce waste which is disposed at Kalaka. People also feel the need more space as Kalaka is getting full. (Q.28) <p><Others></p> <ul style="list-style-type: none">- People is expecting that MLECCNR should be more responsible for waste issue in Vava'u, followed by MoH. (Q.29)- People's awareness level on J-PRISM is increased in Kameli, Leimatu'a and Longomapu but some does not know. (Q.30)												
4. RECOMMENDATIONS												
<p>Overall, according to the results of the entire questionnaire, it is noted that there is a positive change in the perception of people's awareness on community-based garbage collection system as well as impression of Kalaka final disposal site. The most encouraging fact for the project is that people has recognized their home and community environment has become cleaner compared to the past. The results of the survey are an endorsement of the fact that a positive and fresh start has been made in the other expansion communities for their implementation of community-based garbage collection. On the other hand, it is found some concerns and improvement are needed. More awareness on each system, namely Hiko VEVE, 3R (segregation, recycling) and Kalaka operation system is also necessary. It is noted that VEVE Committee is taking a very important role for delivery of necessary information on their garbage collection. The trust relationship between VEVE Committee and residents should be well-established. The results of the questionnaire survey should be shared with all project members including VEVE Committee members who conducted a questionnaire survey, and work together to establish a better waste management system in Vava'u.</p>												

5 Public Relations Activities

	Public Relations Activities	Targets of Public Relations		Results
		Target Country	Japan	
1	Press Release	○	×	<ol style="list-style-type: none"> 1. Fiji: Completion ceremony of the Sigatoka final disposal site (October, 2014) 2. Fiji: Launching of the Clean School Program & Home Composting Subsidy Program (April, 2015) 3. Tonga: Outline of the first JCC meeting (October, 2011) 4. Tonga: Outline of the Regional 3R Forum in Asia and the Pacific (April, 2013) * 5. Tonga: Completion ceremony of the Kalaka landfill (February, 2013) 6. Tonga: Outline of the fourth JCC meeting (February, 2015) 7. Fiji: Workshop promoting waste separation at the Sigatoka Market (August, 2015)
2	Press briefing	○	×	Explanation of the outline the project to local journalists (November, 2011)
3	Project website	×	×	
4	Dispatch of information by SNS	○	○	The C/Ps along with Expert dispatched information and established the network by Facebook
5	Newsletter and leaflets	×	×	
6	PR events	○	×	1. Tonga: Invitation of a radio station to the 4 th JCC meeting broadcasting speeches and comments by JCC participants
7	Others	×	○	<ol style="list-style-type: none"> 1.Tonga: cooperation to a column of ODA White Book 2013 http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/hakusyo/13_hakusho_pdf/pdfs/13_c18.pdf 2.Tonga: provision of photos for “Useful Information” of “Highlighting Japan”, an online magazine, by the Public Relations Office of the Government of Japan (October, 2014) http://www.gov-online.go.jp/useful/article/201409/4.html 3.Tonga: provision of an article to the website of JICA Tonga office (April, 2015) http://www.jica.go.jp/tonga/office/activities/project/01.html 4.Contribution of an article to a newsletter published by Association of Japanese Consulting Engineers (AJCE) (July, 2015) 5.Tonga: Presentation at the 26th conference of Japan Society of Material Cycles and Waste Management (September, 2015) 6.Tonga: reception of Taiwanese TV coverage on garbage collection by communities (September, 2015) 7.Presentation at the 5th Seminar jointly-organized by Overseas Environmental Cooperation Center (OECC) and Japan Waste Management Consultant Association All Rights Reserved (JWMCA) (January, 2016) 8.Tonga: provision of an article to the website of JICA Tonga office (February, 2016) http://www.jica.go.jp/tonga/office/activities/project/01.html

6 Handover Document

検 査 調 書

平成 26 年 9 月 23 日

【件名】 大洋州地域廃棄物管理改善支援プロジェクト（廃棄物管理 B, F）
【購入金額】 AUD 1,500.00
【購入相手】 Pin Tech

【納入・引渡し年月日】 平成 26 年 9 月 23 日
【納入場所】 ベシオ町役場オフィス、ベシオ、キリバス国
【検査年月日】 平成 26 年 9 月 23 日
【検査内容（検査品目、個数）】


No	品目	個数
1	コンピューター式（DELL Inspiration AIO 2020、Windows8 Professional）	1
2		
3		

【検査所見】
特になし

【検査結果】
合格

購入相手責任者：Pinto Katia
Pin Tech

確認致しました、

検査者：可児 

CERTIFICATE OF HANDOVER

ATTENTION : Resident Representative
JICA Fiji Office

PROJECT TITLE : "Japanese Technical Cooperation Project for Promotion of
Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM)"

This is to certify that the equipments in the attached list for Japanese expert Ms. Keiko KANI has been handed over properly as of 23 September 2014 to Betio Town Council. The equipment which is listed in Annex will be utilized effectively for the implementation of the Project by Betio Town Council together with the support from Ministry of Environment, Lands and Agriculture Development and Ministry of Internal Affairs, based on the Record of Discussion signed on 16th December, 2010.

23 September 2014




(SIGNED)

✓ Ms. Rine Ueara
Chief Executive Officer, Teinainano
Town Council

EQUIPMENT LIST

NO.	ITEM	DESCRIPTIONS	QUANTITY
1	Computer	DELL Inspiron AIO 2020 Windows8 Professional	1


(SIGNED)

7 List of Products generated through Project Activities and other documents

7.1 Fiji

	Title	Report
7.1.1	Clean School Program & Home Composting Subsidy Program	
	Program Proposal for the Clean School Program & Home Composting Subsidy Program	Completion Report Annex 7.1.1.a
	Result of Subsidy Program (presentation by DOE at 5 th JCC meeting)	Completion Report Annex 7.1.1.b.
	CSP guidebook (national version)	Completion Report Annex 7.1.1.c.
	Manuals of Home Composting	Completion Report Annex 7.1.1.d.
	Poster for Home Composting Subsidy Program	Completion Report Annex 7.1.1.e
7.1.2	Minutes of Meeting for the Bi-monthly Meetings	
	10 th meeting	Completion Report Annex 7.1.2.a.
	11 th meeting	Completion Report Annex 7.1.2.b.
	12 th meeting	Progress Report 2 (Annex 2)
	13 th meeting	Progress Report 3 (Annex 1)
	14 th meeting	
7.1.3	Annual Progress Report (by DOE and 7 councils)	
	Annual Progress Report in 2014	Progress Report 2 (Annex 3)
	Annual Progress Report in 2015	Completion Report 7.1.3.b
7.1.4	Poster for Suva Market Compost Project	Progress Report1 (the main text)
7.1.5	Signboard for Rehabilitated Sigatoka Landfill	Progress Report1 (the main text)
7.1.6	Signboard for Communal Recycling Center	Progress Report 2 (the main text)
7.1.7	Operation and Maintenance Manual for Landfill at Sigatoka Town in Fiji	Completion Report Annex 7.1.7
7.1.8	Training Text, How to make a plan of market compost project	Completion Report Annex 7.1.8

7.2 Kiribati

	Title	Report
7.2.1	Clean School Program Report	
	Clean School Program Report in 2014	Completion Report Annex 7.2.1.a
	Clean School Program Report in 2015	Completion Report Annex 7.2.1.b
7.2.2	Awareness Materials: Firewood & Chainsaw Rental Promotion	Completion Report Annex 7.2.2
7.2.3	Awareness Materials: School Compost Promotion	Progress Report 1 (the main text)
7.2.4	Report of Third Public Opinion Survey	Completion Report Annex 7.2.4
7.2.5	Report of Delivery Lecture on Waste Education and Site Visits	Completion Report Annex 7.2.5

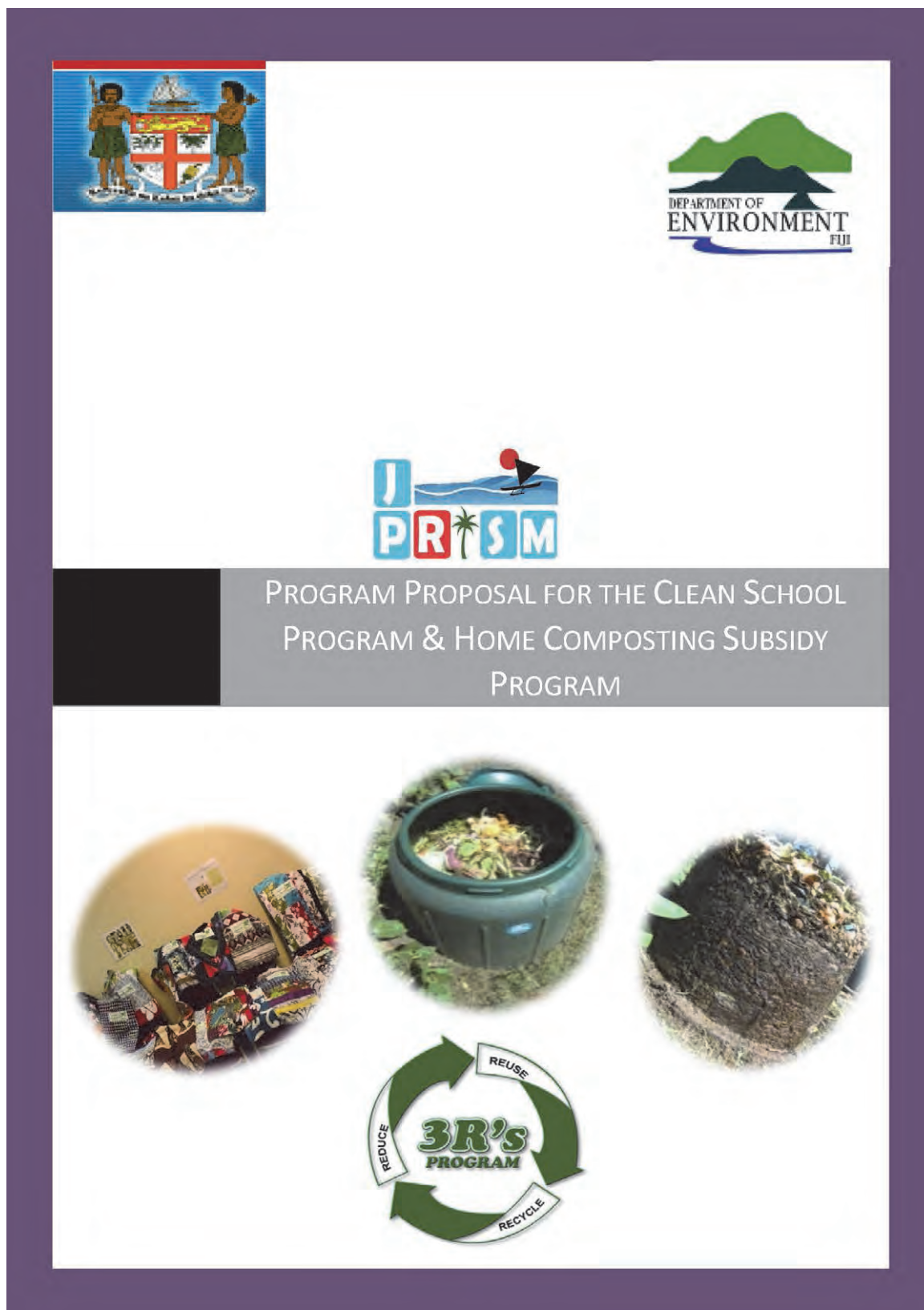
7.3Tonga

	Title	Report
7.3.1	Operation Manual for Vava'u Rehabilitated Disposal Site (revised)	Completion Report Annex 7.3.1
7.3.2	"Garbage collection Plan in Vava'u including Pilot Project Plan (Final draft)"	Completion Report Annex 7.3.2
7.3.3	Solid Waste Management Plan for Vava'u (Final draft) (Dec. 2012)	Completion Report Annex 7.3.3

7.1 Fiji

7.1.1 Clean School Program & Home Composting Subsidy Program

a. Program Proposal for the Clean School Program & Home Composting Subsidy Program



Background Information

J-PRISM in Fiji started on full scale from March 2012 as a continuation on from JICA's other project "Waste Minimization and Recycling Promotion Project in Fiji" which was piloted in Lautoka and Nadi from Oct 2008 until March 2012.

The different activities include:

1. Clean Schools Program under the Environmental Awareness component
2. Market & Green Waste Compost
3. Home Compost [LCC, NTC, SCC]
4. Recyclable Collection [LCC, NTC]
5. Rehabilitation of dumpsites & landfill [LCC, STC]

These activities have been executed, to varying degrees, in all six Western Division councils namely Ba Town Council, Sigatoka Town Council, Rakiraki and Tavua Town Council followed by Suva City Council of the Central Division.

Thus far, progress of the project in Fiji, especially in Ba, Rakiraki and Tavua is moderate.

Background & Necessity of the Project

Shibushi City, one of the Japanese municipal council, used to discard all of the combustible and incombustible wastes to landfill sites due to the inexistence of a waste incinerator plant. As a consequence, the landfill was getting tight and it was necessary to decide either constructing a new landfill site or decreasing the amount of waste. Due to the large construction cost of the landfill site, the city decided to reduce waste generation by introducing separation of recyclables from non-recyclables. With enormous efforts by both citizens and city administrators to reduce waste generation, the amount of waste disposal at the landfill site was successfully reduced by 80% and the landfill site lasts for a much longer period.

Base line surveys conducted in Lautoka City Council under the "3Rs Project" in 2008 revealed that 1.1kg of waste was generated/person/day which amounted to municipal waste generation rate of 48.1 tons of waste/day. The waste management costs accounted for 20% of the total council budget and it was also revealed that 60% of the waste generated was organic in nature. In addition, the open burning of waste and littering was concern for the council and the citizens as it posed serious public health nuisance, caused environmental pollution and fire risk to properties. Home Compost subsidy programme was therefore adopted by the council to encourage the citizens to recycle organic waste by practicing home composting. However, in this proposal it is strongly recommended that Government take the bold step of adopting and continuing the subsidy program from our council counterparts. This would also ensure sustainability of the program come 2016 which marks the end of the life of the project.

Objectives

The major objective of this proposal is to enable and provide Government all the necessary information to make a sound decision to actively take on the subsidy program from the shoulders of our council counterparts.

Time-frame

Program is intended to be a pilot project commencing January 2015.

Target Groups

The students, parents, teacher's, general public, Department of Environment staff and any interested member of the community are the prime targets of the program.

Promotion of Home Composting in all municipal towns of Fiji

1. Home Composting subsidy to be borne by Government

Since organic waste is a major component of MSW in Fiji it is critical for us to reduce the amount of kitchen and green waste. Home composting is an effective way of reducing the amount of kitchen and green waste at source. In addition, you can use compost, which is a product of composting process, for gardening.

The subsidy program will be tackled in phases and when the demand arises, the Department will re-assess requests put forward by the different councils. Firstly, it is proposed the 2015 program shall run on a pilot basis aiming at subsidizing 30 plastic bins for bigger councils, with established 3R programs, who have actively taken on the composting program namely LCC, NTC and SCC.

The remaining councils who are planning and are slowly implementing the program will be awarded 10 bins to kick start efforts for 2015. This proposal is also aiming to target DOE staff with a provision of 12 bins for all officers of DOE looking after waste management that would contribute to make DOE staff accumulate more experience of the practice of home composting. For the Clean Schools Program it is recommended that Government continue financial assistance rendered to the existing councils likewise new councils who may wish to extend its services in undertaking the two programs. Breakdown of financial assistance is tabulated below.

(a.) Home Composting Subsidy Program and; how it will work?

- Compost bins are provided for rate payers at a subsidized price of \$30 (Ministry provides a subsidy of \$52.00 per bin while \$82.00 at an agreed price by the compost bin making company whilst at \$115.00 normal retail price.

(Council counterpart to sell and promote bin with money collected from rate payers to be deposited into the Ministry's account);

- A copy of the home composting manual is provided with each compost bin;

- Council counterparts to provide for technical support by way of assisting rate payers who purchase the bins and guiding them in terms of installation, technical advice and lastly monitoring of the bins;

- Those who do not pay tax to the councils can buy a compost bin at a full price (\$82) from councils or the office of the Department of Environment.

(b.) Clean Schools Program – Financial Assistance; how it will work?

As of 2012, the Ministry had been rendering financial assistance to the six Western Division councils for the annual prize giving ceremonies conducted at the end of the competition. After, collation of data from all involved councils it has been noted that budgets of the different councils spent on this annual event is vastly different. Hence, amount to be given to councils has been greatly reconsidered and categorized according to size of council. In addition, taking into consideration the number of schools taking part in the competition along with the boundary covered by the council to enable rural schools to also take part in the competition. Detailed budget break down is tabulated in the program below.

Proposed 2015 Activities for JPRISM Target Councils on the Subsidy Program

1. Home composting Program

Activity	Cost subsidized	Total no. of bins	Councils/ Dept Identified
1. 30 bins each for established councils	\$7560.00	90 bins	3 – Lautoka City Council Nadi Town Council Suva City Council
2. 10 bins each for developing councils in the Western division	\$3280.00	40 bins	4 – Sigatoka Town Council Ba Town Council Tavua Town Council Rakiraki Town Council
3. 10 bins each for non-target councils in other divisions	\$4920.00	60 bins	6 - Lami Town Council Nasinu Town Council Nausori Town Council Levuka Town Council Labasa Town Council Savusavu Town Council
4. 12 bins for DOE Office	\$984.00	12 bins	3 - DOE Offices Central West North
Total	\$16, 564.00 for Proposed 202 bins – Pilot Year : 2015		

2. Awareness Materials

- Reprints of Compost Manuals/Guidebook
- Awareness leaflets/pamphlets on compost bins and its benefits
- Newspaper advertisement articles promoting the subsidy program & official launching

3. Training & Practical Sessions [Technical Training Workshop]

- Internal training sessions by council counterparts to other council counterparts inclusive of DOE officers
- Technical Training workshop is targeted to be conducted by the end of February 2015 once approval in principle of the Subsidy Program is obtained.
- It will be a 1 1/2 day workshop inviting participant's from the 13 councils to conduct both technical advice on home compost and field visits

Proposed 2015 Activities for JPRISM Target Councils on the Subsidy Program

2. Clean Schools Program

Activity	Financial Assistance	Councils/ Dept Identified
5. Sponsorship to Annual CSP Awarding Ceremony – Established councils	\$350.00	3 – Lautoka City Council Nadi Town Council Suva City Council
6. Sponsorship to Annual CSP Awarding Ceremony – Developing councils in the Western division	\$250.00	4 – Sigatoka Town Council Ba Town Council Tavua Town Council Rakiraki Town Council
7. Sponsorship to Annual CSP Awarding Ceremony – Non Target councils in other divisions	\$150.00	6 - Lami Town Council Nasinu Town Council Nausori Town Council Levuka Town Council Labasa Town Council Savusavu Town Council
Total	\$2950.00 for all municipal councils in Fiji – Pilot year : 2015	

3. Awareness Materials

- Reprints of 3R Guidebook
- Awareness leaflets/pamphlets on CSP

4. Training & Practical Sessions [Technical Training Workshop]

- Internal training sessions by council counterparts to other council counterparts inclusive of DOE officers
- Technical Training workshop is targeted to be conducted by the end of February 2015 once approval in principle of the Subsidy Program is obtained
- It will be a 1 1/2 day workshop inviting participant's from the 13 councils to conduct both technical advice on home compost and field visits

Proposed Work Program															
Work Program	Year 2014				Year 2015										
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	S O	Nov	Dec
1. Submit and obtain approval on the 2015 Home Composting & CSP Proposal to management	12 th - 19 th														
2. Liaise with Rotumold on the no. of compost bins required for the 2015 pilot program															
3. Inform all councils on the 2015 Pilot Program and identify contact personnel per council															
4. Councils to submit applications for HC & CSP using the template provided.															
5. Prepare logistics for the 1 ½ day workshop															
6. Run workshop and distribute HC bins						End of Feb									
7. Monitoring by DOE on a monthly basis and provide 3 monthly update to management									1 st Reporting			2 nd Reporting		3 rd Reporting	
8. Review effectiveness of Pilot program															
9. Submit report to Management including way forward for the sustainability of the program.															

Budget

Activity	Council Identified	Proposed Budget
1. Home composting Subsidy Program	All councils – 13 councils	\$16,564.00
2. Clean Schools Program	All councils	\$2950.00
3. Awareness Materials	Use by all councils	\$3000.00
4. 1 ½ day Technical Training Workshop	All councils	\$20,000.00
Total		\$42, 514.00

Benefits of the Program**Individual benefits**

- ◁ . Bins have potential to reduce 20% of waste generated from homes
- ◁ . No need to worry about scattering by dogs
- ◁ . Easy and fun way to get the whole family to take part in an environmentally friendly solution
- ◁ . Produces free compost for your gardens
 - ◁ . Teachers' students at the grass roots level the benefits of 3R and how to be responsible with the waste they generate

Council's benefits

- ◁ . Cuts frequency of garbage collection hence a huge cost cutting benefit to all municipal councils
- ◁ . Reduces leachate generated from landfill
- ◁ . Extends life of our landfills
- ◁ . Reduces greenhouse gases

Environmental benefits

- ◁ . Recycles a valuable natural resource rather than burning or burying it in a landfill
- ◁ . Helps gardens and lawns become less dependent on chemicals
- ◁ . Adds essential nutrients to the soil
- ◁ . Helps soil hold water better
- ◁ . Discourages weeds

Lastly, waste minimization efforts together with local and national targets that municipal councils and the Department is trying to achieve in the many years of existence will be achieved if this proposal is given high priority and is well received.

b. Result of the Clean School Program & Home Composting Subsidy Program

Presentation Materials at the fifth JCC meeting by DOE

1. Progress of Home Composting Subsidy Program (1)						
	Plan for FY2015	Progress in early Jul. 2015		Progress at end Nov. 2015		Plan for FY2016
	No. of bins provided by DoE	No. of bins sold (%)	No. of bins monitored (%)	No. of bins sold (%)	No. of bins used properly* (%)	No. of bins to be promoted
Lautoka	30	0 (12 own bins)	0 (own only)	7 (23.3%)	5 (16.7%)	30 (36 bins to be promoted)
Nadi	30	6 (20 %)	14 (incl. own)	30 (100%)	16 (53.3%)	30 household: 25 school: 5
Sigatoka	10	6 (60 %)	2 (20 %)	11 (110%)	6 (60%)	20
Ba	10	2 (20 %)	2 (20 %)	10 (100%)	3 (30%)	10 household: 10
Tavua	10	10 (100 %)	2 (20 %)	10 (100%)	2 (20%)	5 household: 3 business: 1 school: 1
Rakiraki	10	10 (100 %)	0 (0 %)	10 (100%)	2 (20%)	10
Suva	30	23 (76.7 %)	36 (incl. UNDP bins)	30 (100%)	20 (66.7%)	household: 30 (from UNDP Household: 50 School: 27)

Good Practices & Difficulties

- Promotion of the Home Compost Subsidy Program through TV Advertisement
- Council also maintains a log book whereby compost bin sales are recorded
- Installation of Bins by the Council Staff and ongoing Monitoring on the use of the bins
- High Demand from Rural Boundary for the purchase of bins
- Councils facing difficulty in the promotion of the bins in the rural boundary
- Due to limited resources, sometimes monitoring is difficult
- Standard format for Home Compost Log book.
- Free distribution of subsidized compost bins
- Two bins sold to one household



1. Progress of Home Composting Subsidy Program (2)

	Plan for FY2015	Progress in early Jul. 2015		Progress at end Nov. 2015		Proposed Plan for FY2016
	No. of bins provided by DoE	No. of bins sold (%)	No. of bins monitored (%)	No. of bins sold (%)	No. of bins used properly* (%)	No. of bins to be promoted
Nasinu	10	3 (30 %)	0 (0 %)	8 (100%)	?	15 Residents: 40 Businesses: 10 Schools: 9 Free distribution: 5
Nausori	10	10 (100 %)	10 (100%)	0	9 (90%)	9 household: 30 school: 30
Lami	10	4 (40 %)	0 (0 %)	10 (100%)	10 (100%)	38 household: 30 school: 8
Levuka	10	10 (100%)	4 (40 %)	10 (100%)	9 (90%)	30
Labasa	10	7 (70 %)	0 (0 %)	10 (100%)	7 (70%)	30 household: 70 business: 10 free distribution: 20
Savusavu	10	0 (0 %)	0 (0 %)	10 (100%)	5 (50%)	100 household: 70 business: 10 free distribution: 20

Conclusion

(Home Composting Subsidy Program)

- Almost all the Councils could manage to sell all the compost bins provided by DoE.
- However, some Councils sold bins to more than two bins per household/business.
- Some bins sold to rural boundaries due to the high demand.
- However, Councils could not conduct monitoring as target places located outside the boundary.
- Many of compost bins monitored tend to be too wet or too dry.
- Training or instructions is needed by some councils for the proper use of home compost bins



Way forward for the next year

(Home Composting Subsidy Program)

- To make the program more effective, the following matters will be re-examined before starting the next year:
- Signing of Agreement between the DOE and the Home Compost Bin supplier;
- Signing of Agreement between the DOE and the 13 Councils before the distribution of Compost bins;
- Consultation with CBH for the possibility of RLAs assistance;
- Training.



Way forward for the next year

(Home Composting Subsidy Program)

➤ Targets:

- Considering the financial source of the subsidy, all the households including rural area, should have the right to buy a compost bin each at a subsidized price. Compost bins are required more for residents who live in rural area due to lack of regular collection services.

[Resolution] Should rural area be targeted or not?

- It seems difficult for councils to carry out monitoring in rural area, so RLAs/MoH will be approached for the Home Compost Subsidy Program.

[Resolution]

- Should councils sell bins only to rate payer or also to non-tax payer?

- Is it possible for RLAs/MoH to conduct monitoring issues?

Unless DOE and MOH agree with monitoring issues, councils should focus on rate payers only.

Way forward for the next year

(Home Composting Subsidy Program)

➤ Making sure of fairness:

- Councils need to explain about the outline of the subsidy program and TOR for owners to those people who showed interests in purchase of the bins.

- Each household/business can buy only one bin. If they want to buy more, they can buy them at the market price (¥115.50).

- **Agreement between councils and residents who buy compost bins.**

- Councils and residents who buy bins should make a simple agreement in order to make sure of proper use
- To use bins properly
- Never sell bins to the third person
- To accept council's monitoring work twice at least

RESULTS OF 2015 CLEAN SCHOOL PROGRAM

1. Progress of Clean School Program (CSP) (1)

	Plan for FY2015	Progress in early Jul. 2015			Progress at end Nov. 2015			Plan for FY2016
	No. of target schools planned for FY 2015	No. of schools participated	No. of schools monitored	No. of schools participated	No. of schools participated	No. of schools monitored	No. of schools final judged for Award ceremony	No. of school targeted for FY2016
Nasinu	8 (Urban:8)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0	Primary:2 Secondary:2
Nausori	6 (Urban:6)	8 (133%)	8 (133%)	8 (133%)	8 (133%)	8 (133%)	0	Primary:5 Secondary:5
Lami	7 (Urban:7)	0 (0%)	0 (0%)	5 (71.4%)	5 (71.4%)	5 (71.4%)	0	7 (all urban) (primary:4, secondary:3)
Levuka	7 (Urban:7)	3 (42.9%)	0 (0%)	4 (57.1%)	4 (57.1%)	4 (57.1%)	2*	Urban: Primary 4 Secondary: 2 Rural: Primary:5 Secondary:1
Labasa	6 (Urban:6)	6 (100%)	0 (0%)	5 (83.3%)	5 (83.3%)	5 (83.3%)	0	Primary 6 Secondary 5
Savusavu	6 (Urban:3, Peri-urban:3)	0 (0%)	0 (0%)	6 (100%)	6 (100%)	6 (100%)	6 (100%)	9 (all urban) Peri-urban:3 Rural:3 (primary: 6 secondary: 3)

Way forward for the next year (Home Composting Subsidy Program)

- Awareness activities and its schedule
 - To start selling bins after the start of TV and Press Ad
 - To prepare for places to demonstrate the compost bins and promote the subsidy program at the council office or any place where the public can see them (markets)

1. Progress of Clean School Program (CSP) (1)

	Plan for FY2015	Progress in early Jul. 2015			Progress at end Nov. 2015			Plan for FY2016
	No. of target schools planned for FY 2015	No. of schools participated	No. of schools monitored	No. of schools participated	No. of schools participated	No. of schools monitored	No. of schools final judge & Award ceremony	No. of school targeted for FY2016
Lautoka	51 (Urban:26, Rural:25)	32 (67%)	32 (100%)	32 (67%)	32 (67%)	32 (67%)	32 (67%)	23 (Urban:13, Rural:10)
Nadi	23 (Urban:12, Peri-urban:6, Rural:5)	27 (117%)	27 (117%)	27 (117%)	27 (117%)	27 (117%)	27 (117%)	25 (Urban:11, Peri-urban:11, Rural:3)
Sigatoka	10 (Urban:3, Peri-urban:1, Rural:6)	3 (30%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0	10 (all urban)
Ba	16 (Urban:11, Peri-urban + Rural:5)	15 (93.8%)	15 (93.8%)	12 (75%)	12 (75%)	12 (75%)	12 (75%)	12 (Urban:9, Rural:3)
Tavua	4 (Urban:4)	4 (100%)	4 (100%)	4 (100%)	4 (100%)	4 (100%)	4 (100%)	3 (all urban) primary:2, secondary:1
Rakiraki	7 (Urban:4, Peri-urban:3)	6 (50%)	3 (25%)	6 (85.7%)	6 (85.7%)	6 (85.7%)	6 (85.7%)	7 (all urban) primary:2, secondary:1
Suva	22 (Urban:22)	7 (33.3%)	0 (0%)	27 (122.7%)	27 (122.7%)	27 (122.7%)	27 (122.7%)	11 (all urban)

Good Practices & Difficulties

- | | |
|---|--|
| <ul style="list-style-type: none"> • Set-up of Environment Committee which comprise of Teachers and Students • The school does not sell juice in school and therefore does not have the PET bottle problem. • The school has also engaged South Pacific Waste recyclers in the collection of waste paper in the school. • The schools does not incinerate its rubbish • 3 bins placed inside the classrooms for separation purposes • Creativity by the teachers and students • Collaborative effort between the Councils and RLAs | <ul style="list-style-type: none"> • The school is having difficulty in managing the waste accumulated from the free milk initiative. • Students still mix rubbish in both the bins as well as in the sack for paper collection. • Papers & PET bottles not being collected by recycling company • Lack of involvement of teachers and students in the programs. • 3R Officers is having difficulty in carrying out training for teachers • Limited resources within the Council to carry out CSP • Late submission of Action Plan • Difficulty in filling the Action Plan |
|---|--|

13

Way forward for the next year

(Financial Assistance for Clean School Program)

- To make fully use of the system, particularly at smaller councils, it is good to start with small number of schools, and accumulate knowledge through actual experience.
- It is necessary for newly participating schools to get skills and knowhow more. DOE need to take a measure to close the gap between experienced councils and newly participating councils, as well as between winning schools and inactive schools, in cooperation with experienced councils.
- It is necessary to strengthen the cooperative relations with MOH and LRLA in order to promote CSP in rural areas.
- It is necessary for DOE to simplify the process of claiming the financial assistance.



14

Conclusions

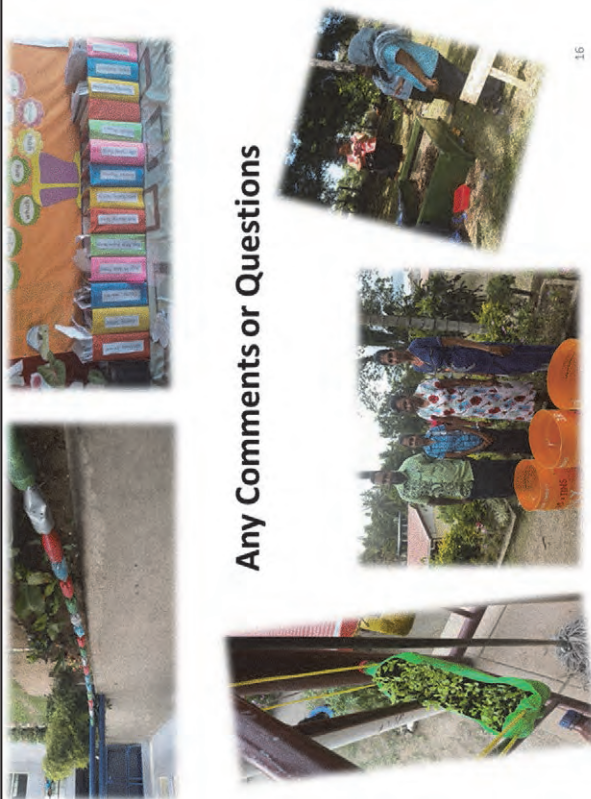
(Financial Assistance for Clean School Program)

- Most of J-PRISM targeted councils managed to complete the annual program until awarding.
- Some councils couldn't due to insufficient human resources.
- For newly participating councils succeeded in implementing CSP, but may need to improve the quality of activities at schools.
- It is difficult for some councils to implement CSP at schools in rural areas..



14

Any Comments or Questions



16

c. **CSP guidebook (national version)**

Content	
Background information	3
Aim	4
Management methods: "3R Committee"	5
PDCA cycle	6
Action plan	7
Practices: [Component 1] Environmental awareness raising	8
[Component 2] School Composting	10
[Component 3] Rubbish Separation & Recycling	14
Annex	18





Background information


As the development proceeds and our life style becomes modern and convenient, natural environment has been threatened with air pollution, water pollution, dead corals, deforestation and clearing of mangroves, which are the issues of whole country and the world. Nadi, developed as a tourism town, also has big impacts of the issues since tourism is based on natural and clean environment as an important resource to attract tourists.

Among various environmental issues the main problem our town is now facing is the big amount of waste discharged from business and households every day. It is said that the amount of waste will soon exceed the limit of our dumpsite. The cost for waste management also bears severely on the council budget, which accounts for 30% of all budget including all cleansing services.

Under this situation, Nadi Town Council started Waste Minimization and Recycling Promotion Project in October 2008 in partnership with JICA, Lautoka City Council and Department of Environment. According to the survey conducted in the project, each person in Nadi generates 1.9kg of waste every day, and the amount is expected to increase in future. The dump site that takes the waste as a final disposal site will overflow if we continue to discharge the same amount, but it is difficult to find suitable place for a dump and it costs a lot to construct a new disposal site with necessary facilities and management system. It is very important especially for Nadi which does not have its own dump site and depend on Yunato Dump in Lautoka, to decrease the volume of waste to tackle the issue. The pilot project for separate collection of recyclables, home composting and green waste collection was conducted in Matavolivol of Namaka Ward from September 2009, and the project has been expanded to whole area of Nadi Town Boundary.

With establishment of effective system for waste minimization, we need to promote education and awareness raising for the people at the same time. Schools will take a core role on this point since the children, who develop our future based on their learning at school, can also pass on these ideas from schools to home and communities.

The guide of the first edition was developed for Clean School Program 2010-2011 to help schools start the first step for 3R practices, and revised this time with good experiences and lessons learnt from 2010 program within Nadi town and Lautoka city schools as the key points shown in the guide. The guide is expected to be a reference book for the schools in Nadi/Lautoka for better practices and improvement, and also for other schools interested in implementing this program using the experience of Nadi and Lautoka.



Aim

Clean School Program was organized to introduce **3R centric system to schools** with the following objectives.

- 1) To give the opportunity for schools to start proper waste management
- 2) To target children in creating awareness on the concept of waste minimization at schools, home and communities

What is 3R?
 3R - standing for Reduce, Reuse and Recycle, is the concept for the actions to minimize waste.

Reduce
 To prevent or reduce waste generation at source by buying fewer items or longer lasting products etc.

Reuse
 To extend the life cycle of an item by using it again or in another way

Recycle
 To reprocess used materials in order to produce new products

Priority of 3R

REDUCE, REUSE, and lastly RECYCLE

Among 3R, it is most important to "Reduce" the items we consume, not to generate waste. Then we can think of "Reuse" before throwing waste. Last means will be "Recycle" to reduce the waste going to landfill. We should remember that the process of recycling still needs energy and cost.

Concept of 3R centric system at school

There should be a well constructed system and mind to practice 3R at school as shown below.

- There are rules and opportunities to minimize waste discharged from school
- Proper way of waste disposal is known and practiced
- Teachers, students, board members and ideally parents and communities are working together
- Both theoretical and practical education is carried out

Management methods: PDCA cycle

Why do we need to plan and monitor the activities?

In order to get from "problem-faced" to "problem-solved", it is very important for you to manage the activity towards the problem and keep improving it. PDCA Cycle is a useful check list of the four stages you can go through.

Plan: Find out the problems faced and make a plan for solving these problems.

Do: Carry out the activities based on the plan.

Check: Evaluate the result of the activities for solving the problems.

Act: Improve the points which are not successful for achieving the goals.

Importance of regular monitoring and supervision

It takes time to grasp and implement new practices. Teachers and 3R committee members need to give proper and clear instructions especially at early stage and monitor regularly. As one tries, the practices improve and become better.

If the change did not work, go through the cycle again with a different plan. If you were successful, incorporate what you learned from the test into wider changes. You can use what you learned to plan new improvements, beginning the cycle again.

Management methods: "3R Committee"

For smooth waste management at school, the very first step could be to establish a "3R Committee" (The name of the committee may vary in each school). This will encourage schools to participate and claim ownership of waste problems. Schools are advised to elect the committee if one does not already exist.

To keep broad debate and democratic decision-making, the committee should include equality in numbers in the following areas:

- Teachers and students
- Women, men, boys and girls
- Representation of all ethnic groups

In order to make the committee work effectively, it will be important to:

- Develop and share overall goals to be achieved.
- Have regular meetings
- Have good communication between the committee and the rest of the school
- Involve parents and communities in the activities
- Ensure all committee members take specific tasks

Then schools will need to select officers / form action teams to carry out the activities at classroom level. The officers / action teams might be developed in all classes to make the rules and activities known to everybody in the school. They can be also combined with existing student groups.

Role of Committee (School Level):

- Decision making
- Communication to the rest of the school
- Communication to outside of the school (parents, communities, recyclers etc.)

Role of Officers / Action Teams (Classroom Level):

- Communication to all the students and the teachers
- Carrying out the activities

Key points

Some ways to let students feel proud of being committee members.

- Badges / ID cards
- Induction ceremony

Reference: Live & Learn "GREEN SCHOOLS Guide"

Management method

Action plan

As a start of the program schools can develop "Action plan" of the year since written and clear plan will help schools to proceed the activities smoothly. You can make the action plan with the following steps.

1. Brainstorm the problems about waste issues the school is now facing.
(Check sheet in Annex of this guide can be used to help the school grasp the present situation)
-
2. Discuss and identify the main problems of the school.
-
3. Set the goals to achieve, which will be the situation to realize the solution of the main problems.
-
4. Plan the activities to achieve the goals. The plan should include the content (What), the process (How), the person or group in charge (Who), the time frame (When) and the cost (How much).
-
5. Fill in "Action plan" sheet (Annex of this guide).

Action plan should be renewed regularly according to the results and lessons of the practices carried out, which is a part of "PDCA cycle".

Practices

[Component 1] Environmental Awareness Raising

Introduction

Schools have an important role of educating children with right concept of achieving healthy and sustainable environment. Component 1 shows the examples of what schools can plan and carry out for educational activities, which will contribute to raising awareness.

Practice examples

"Reduce" in 3R

- Promotion of cloth bags instead of plastic bags
- Practice of both side printing and writing
- Discussion on what we can do in shops to reduce waste (buying only necessary items, choosing less wrapped products, getting long lasting items etc.)

FURUSHIKI - Cloth bag

"Reuse" in 3R

- Reuse of pet bottles, cans, containers and cardboard boxes for another purpose
- Introduce reusable cups and plates at canteen
- Letting students and parents bring their own cups and plates in school functions to avoid the use of disposable paper plates and plastic cups
- Reuse of envelopes
- Rubbish art and craft

Rubbish art & craft

Compound beautification

- Clean-up activities
- Nurseries and gardening

Reused PET bottle for pot plant

[Component 2] School Composting

Introduction

What is composting?

Composting is a natural process through which organic materials are converted into a soil like product called humus.

Benefits of composting at school

Composting at schools

- Is a fun way to learn about nature while also reducing the amount of organic waste. An added bonus is that students can actually get to see the end result of their finished compost being used to beautify their school's compound
- Supplies needed nutrients and improves the soil structure of your school gardening etc. which is better than using chemical fertilizers and pesticides.
- Reduces the need for landfill disposal and cut down on garbage collection, decreasing municipality's waste management cost
- Eliminates the need for burning in incinerators.

Steps to follow

STEP1: Decide which (if any) compost containers to use
There are some ways you can go.

1) Wooden timbers
By using wooden timbers, make a square frame for compost.
(try to get waste timbers if possible)

- Keeps compost moist (retains moisture)
- Easy to compact the compost to make it hard for fermentation
- Looks presentable as a compost

GOOD

- May rot / decay overtime
- Turning can be difficult if height is high

BAD

100

Environmental Education Program

Classroom programs

- Learning about danger of waste
- Drawing pictures about environment
- Playing dramas / songs related to environment

Outside programs

- Site visit of dump site
- Survey of littering in town
- Participation in other organization's programs
- Social activities

Whole school programs

- Poster competition
- Speech competition
- Environmental practices competition among classes

Key points

- Activities to give "experience"

For environmental education, it is important for students to actually see, do and experience something rather than just to listen for deep understanding. Choose the activities that involve some practical actions, which can build their interest and is fun as well.

- Showing outcome of activities

Students will be happy and motivated if their results of activities are shown to others. There are many ways such as displaying rubbish crafts on corridor or presenting in school assemblies.

- Background knowledge

When you carry out activities, it is advisable to introduce relevant waste issues together for better understanding and further interest of students.

For more information about environmental education program:
- Live & Learn "HOPE Toolkit"

2) Open Ground

Dig a hole for a few inches and pile organics to make compost.
(Do not dig deep since it might retain water)

GOOD

- Easy to pile the greens and maintain
- Tends to be too dry

BAD

- Can be easily mixed with other waste

3) Compost Bins

Use a plastic or drum composter to make...

GOOD

- Faster decomposition / fermentation
- Easy to use and maintain
- Reusable

BAD

- Costly
- Small for the greens discharged from schools (Suitable for kitchen waste composting)




STEP 2: Locate compost

Decide where to compost, ideally on soil or grass to allow worms and minibeasts to get in.

- Preferably a site which receives good share of shade and sun. Site exposed directly to the sun may result in loss of much needed moisture and decomposition might not progress well.
- Also think about the issues of access to the compost by the members of school.
- Good to have it near to the garden.

STEP 3: Build the pile

Prepare organic materials and start piling up.

**Wet greens
(high in nitrogen)**

Food and vegetable
wastages / Grass clippings /
Plants and flowers



**Dry browns
(high in carbon)**

Leaves, straw and
woody materials / Soil

- 1) Begin with a layer of brown - a base of leaves and woody materials (help circulate air)
- 2) Then add a layer of greens.
- 3) Always finish with a layer of brown on top

STEP 4 : Keep adding materials

STEP 5 : Maintain your pile

- For your compost pile to work efficiently, it must be damp and aerated (for micro-organisms to do their work of decomposition)
- Your pile should be damp, about as wet as a wrung-out sponge.
- If it's too dry add water to it.
- You can cover compost with plastic sheet to keep moisture (if it is open compost).
- Compaction by students pressing with the foot will help for quick fermentation.
- If it's too wet or it smells, add browns (browns will soak up the excess liquid).
- Mixing or turning the compost pile every 2 to 3 weeks will add air to the pile.

Top Tip

- Organic materials (tree / flower pruning, vegetables and fruits) to be cut into smaller pieces for faster and better results
- No leftover food (cooked food) to be put in compost

Do you have problems to maintain compost pile?
Check the solutions below.

Problems	Solutions
What should I do if I notice foul odor/smell, maggots, moisture/harvesting the compost for excess	<ul style="list-style-type: none"> - Sprinkle a layer of soil or Bokashi if available on the surface. - Add dry grass or fallen leaves or wood chips. - Stir the pile to introduce air into the compost pile.
What should I do when it rains?	<ul style="list-style-type: none"> - Ensure that the location has good drainage to prevent water getting into the composter. - Cover with plastic sheet / the lid at all times. - Add dry grass and soil to control moisture and maggots.
How can I judge composting is finished?	<ul style="list-style-type: none"> - Pile has developed a dark brown color. - Earthy smell. - Very little evidence of original yard trimmings or organic waste that was added to the pile. - Moist pile remains cool and does not become warmer after turning.

[Component 3] Rubbish Separation & Recycling

Introduction

Why do we need to separate and recycle rubbish?

All the things we produce and use are made from natural resources, which are limited on the earth. We should make full use of the resources, from sustainable point of view, by using the items again and again (Reuse) and by using them as materials for other products (Recycle). It is important to reduce the amount of waste going to the landfill as well, in order to lengthen the lifespan of the landfill and reduce the financial burden for municipalities.

Benefits of rubbish separation and recycling at school

Rubbish separation and recycling activities at school will:

- Contribute to sustainable waste management and healthy environment.
- Promote practical learning and experience for students on waste issues.
- Help disseminate the idea of 3R to homes and communities

Steps to follow

Step 1: Survey

Identify the types of waste discharged from your school.

- Check sheet in Annex of this guide can be used to find the type of waste.

Step 2: Decide recycling items and the number of separation

Decide the items to be recycled and find the types of waste to be separated.

Recycling items can be:
 PET bottles / Hard plastics / Food tin cans / Aluminum & steel cans, spray cans / Metals (brass, copper, iron) / Office papers / Newspapers, magazines and books / Cardboards / Cloths
 =The items Waste Recyclers can collect

Home Composting



Compost ready for use

NOTE: Compost can be produced in as little as 3 months however it can take longer depending on how you maintain your heap

STEP 6 : Use compost

- Leave in exposed area for at least a week to let dry properly. Turn pile whilst drying/spring.
- Add to your school's garden to improve soil fertility and act as soil conditioner.
- Can be used as base material before planting vegetables or flowers.
- Can be used as potting mix.
- Remember to keep a small portion and add to the new compost pile as the need arises to help eliminate foul odor, maggots, moisture.

Key points

- Accessible location

Compost should be installed at the place where the students and teachers can easily go and see. If not, the compost might not be looked after well or be misused as a dump.

- Attractive sign and look

It is important to make the compost look nice and neat to get students' interest and cooperation.

- Minimum two composts

While one compost is on the process of fermentation to be ready for use, new organic materials should not be added. It is best to have two or more composts so the school can keep making compost for sustainable practice.





Waste Recyclers Fiji Ltd. : 6663796
Contact of Recyclers
Coca-Cola Amatil Fiji Ltd. (Lautoka) : 6661188
Fiji Water : 6681364

Step 5: Proper disposal (non-recyclables)

Have proper storage and disposal ways for all non-recyclables.

- Green waste and kitchen waste (organics) to be composted
- Other waste than recyclables to be collected by the council
- No burning of rubbish
- No burying of rubbish

Why is burning rubbish not encouraged?

If you burn rubbish in your compound, it may

- Release harmful toxins.
- Cause emission of black smoke spreading ash around the area.
- Destroy beautification.
- Contribute to diseases.

Let's try to achieve "zero burning"



Closed incinerator

Step 6: Monitoring

Form monitoring teams and check the proper operation of the system.

- Monitoring sheets are available in Annex.
- Identify ways to inform the students the result of monitoring (ex. morning assembly, classroom discussion)
- Amount of recyclables to be recorded when recyclers collect and weigh the items
- Cash to be properly managed if school gets it
- Use monitoring data in the notice or classroom discussion for further improvement and awareness raising

Monitoring is the key to keep the system working well

Points for Recycling

- Establish the way that is simple and effective
- Start with easy number of recyclables (ex. pet bottles and office papers)
- Consider the amount of waste (Major type of waste can be effectively recycled)


Points for Separation

- The number of recyclables is not always the number of separation
- Other rubbish than recyclables can still be separated to be disposed properly (ex. metals and papers should be separated and not burned together to avoid release of harmful toxins into the air)

Step 3: Prepare separate bins and raise awareness

Enforce separate bins in each classroom and in the compound, and announce the rules of separation to whole school so that everybody knows the discharging manner.

- Old cardboard boxes or containers can be used for bins (means REUSE in 3Rs)
- Bins can be decorated and marked with signs or pictures of items to be thrown (can be a good classroom activity)
- Chart or posters about discharging rules will be effective



Step 4: Storage and recycling (recyclables)

Choose suitable discharging area for storing recyclables and store them in a big sack until they are collected by recyclers. Contact recyclers for the items to be collected.

- Bulk or yard for storage
- Better to be protected from rain (ex. under the big tree, roof)
- Easy access by students (for proper management by students)
- Easy access by recyclers to load recyclables to their truck
- Form the action teams in charge of carrying rubbish to storage / disposal area
- Large nylon sacks can be provided by recyclers
- Discuss with recyclers to decide the frequency and date to collect recyclables (ex. once a month)

Recyclables should be kept dry and clean

Key points

- Clear labels for separate bins**
 The biggest challenge for rubbish separation is to avoid mixing with other rubbish. Big clear labels that shows everybody the separation rules are helpful for implementation.
- Centralized storage area**
 The location of storage area for recyclables decides smooth recycling activity. It should be at a centralized place where prefects can easily access to empty the bins. That also helps appealing activity to whole school.
- Cost management**
 You may have a new cost for proper waste management such as rubbish bins or garbage bags for rubbish collection. Try to use old cardboard boxes for classroom bins, which will not cost any. Prepare some proper bins or nylon sacks for discharging rubbish rather than plastic bags, which needs only initial cost. School committee or local companies might support for those items.

Advice for "Recyclables Collection Day" with parents and communities

It will be hard to collect many items for recycling at school, since schools have few types of waste and too many separation rules will confuse students. But you can think of having "Special Collection Day" for recycling - the occasion where parents and communities can get together at school.

Ask parents to keep the recyclables such as old cloths, newspapers, books, magazines and metals at home, not discharging them on garbage collection days. Then they can bring those recyclables to school on the day of parents day or some functions, and they can be collected by recyclers. Money made from recyclables is small but "Little and often fills the purse" - the gain may support to buy a ball or a book for students!



Bins with big labels

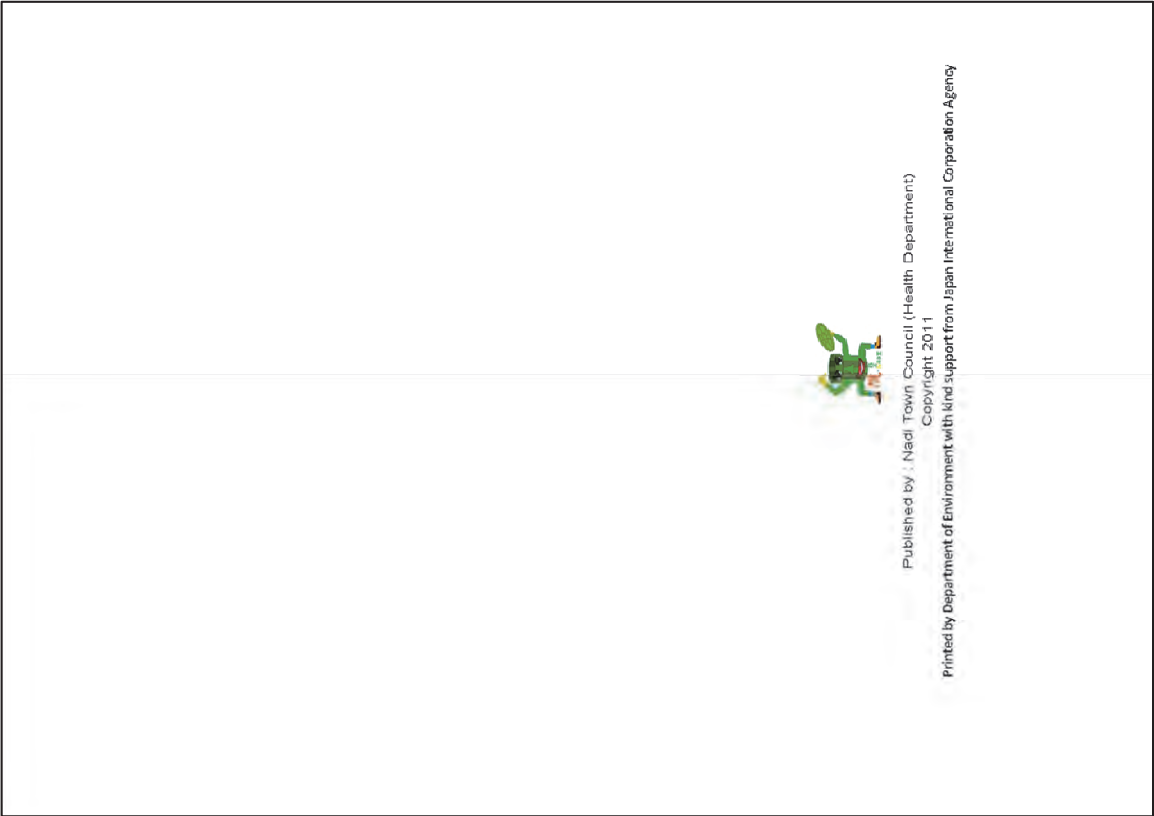


Storage for recyclables

Annex

The following annex to the guide are available to help your school carry out the program. You can make use of them according to your necessity.

- Check sheet
- Action plan
- Monitoring sheet for Component 2: School Composting
- Monitoring sheet for Component 3: Rubbish Separation
- Monitoring sheet for Component 3: Recycling
- Photo showcase of good lessons and practices.



Published by : Nadi Town Council (Health Department)
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Printed by Department of Environment with kind support from Japan International Cooperation Agency

<p>Cooperating schools: (Pioneer Schools in 2010)</p> <ul style="list-style-type: none">- Andrews Primary School- Mount Saint Mary's Primary School- Nadi Airport School- Nadi Arya Samaj Primary School- Nadi Centre for Special Education- Nadi Christian Academy- Nadi District School- Nadi Muslim Primary School- Nadi Primary School- Nadi Sangam Primary School- Namaka Public School- Nadi College- Nadi Muslim College- Sangam Sadhu Kuppaswamy Memorial College (SSKMC)- Ratu Navula College	<p>Supporters:</p> <ul style="list-style-type: none">- Ministry of Education- Department of Environment- JICA (Japan International Cooperation Agency)- Lautoka City Council	<div><p>Produced by: Health Department, Nadi Town Council P.O.Box 241, Nadi, Fiji Islands TEL: (679) 6700133 / FAX: (679) 6700131 E-mail: health@nadienvco.uncil.com.fj</p><p>With contributions from: Yumi Yoshidomi (JOCV 2009-2011) Kayo Sasaoka (JOCV 2011 - 2013 revised) Nafiza Ali Premila Chandra Rajeshwar Raj</p></div>
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d. **A2 size Poster for Home Composting Subsidy Program**

Department of Environment, Ministry of Local Government, Housing and Environment

Home Composting Subsidy Program



Since organic waste is a major component of Municipal Solid Waste (MSW) in Fiji it is critical for us to reduce the amount of kitchen and green waste. Home composting is an effective way of reducing the amount of kitchen and green waste at source. In addition, you can use compost, which is a product of composting process, for gardening.

In Fiji, Lautoka City Council and Nadi Town Council started to promote home composting in order to reduce the waste amount from households for the first time in 2009, and then Suva City Council started to follow the two councils. This year, Department of Environment (DOE) decided to promote home composting nationwide with its newly created Home Composting Subsidy Program.

Home Composting Subsidy Program

- DOE will start the Subsidy Program at all the municipal councils in Fiji in April, 2015. The program will end in December, 2015.
- Rate payers can buy a compost bin at a subsidized price of \$30.00* at your municipal council office.
- A copy of the home composting manual is provided with each compost bin
- You can ask your municipal council for technical support.
- Even though you don't pay the rate, you can buy a compost bin at \$82.00, which is still cheaper than its market price of \$115.00, from councils or the office of the Department of Environment.

* DOE agreed with ROTOMOULD (FIJI) Ltd. to buy each bin at the price of \$82.00, whereas the bin is sold at \$115.00 on the market. With the subsidy of \$52.00 for each bin from DOE, you are requested to pay only \$30.00.



**Rate Payers can
buy a compost bin
only at \$30.0!**

**\$85.0 cheaper than
its market price!**








Please contact the nearest municipal council for further information.

e. **Manuals of Home Composting (A3 size two fold leaflet)**



Back cover

Upper cover



Body of the Manual (inside the two fold leaflet)

7.1.2 Minutes of Meeting for the quarterly Meetings

a. 10th meeting

MINUTES OF THE 10TH JPRISM BIMONTHLY MEETING AT THE SCC CHAMBER ON THE 22ND AUGUST 2014

1.0 Prayer & Welcome Remarks

Opening Speech – A/DS-Josese Rakuita, MLGUDHE

Welcome – A/CEO-Suva City Council

2.0 Apologies

Present – Refer to Annex 1

Apology – Dip Chand, Ba Town Council

3.0 Review of Minutes

Review of the last Minutes

1. SA Rakiraki suggested that the Minute of the meetings should include the names of officers present and the names of apologies in the last meeting.
2. SEO - West informed the members that the Department has this aspect recognized in our final minutes of the meeting template and this will be done also for all future meeting templates.

Moved by Ashnil Sharma - STC

Second by Robert Randolph – SCC

4.0 Council Updates

Brief of Council's Presentation

Sigatoka Town Council	<ol style="list-style-type: none"> 1. Clean School Program <ol style="list-style-type: none"> a. 3rd Teachers meeting - June b. 2nd Round of monitoring – June c. 4th Teachers meeting – July d. Art & Craft workshop at Cuvu District School e. Environmental Education Session at SMPS 2. Market Composting <ol style="list-style-type: none"> a. On hold due the upgrading of the Sigatoka Municipal Market b. Acquired of quotations for the purchase of trailer and rubbish bins [coloured]. c. Composting will resume on September. 3. Hotel Waste Reduction Project <ol style="list-style-type: none"> a. Procurement of bottle crusher to crush glass bottles b. Hotel has a shredder on site belong to the contractor 4. Sigatoka Disposal site Rehabilitation <ol style="list-style-type: none"> a. Mr. Sato present his findings to SA-Sigatoka b. Survey to redefine pegs will be done in September
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	<ul style="list-style-type: none"> c. Rehabilitation scheduled to commence on September and looked after by Mr. Sato 5. Other 3R Activities <ul style="list-style-type: none"> a. Visits from Japanese school b. JICA volunteer visited the Naboro landfill site c. Ms. Eseta resigned from STC and joining MOH d. Installment of recycling bin in town. 19 more to be installed
Nadi Town Council	<ul style="list-style-type: none"> 1. Collection of Recyclables is sustained 2. Home Composting <ul style="list-style-type: none"> a. 244 bins till to date b. 6 bins monitored and found kept in satisfactory condition 3. Eco Bags <ul style="list-style-type: none"> a. Work continued with garment factories and local women groups b. Sold 1753 bags till to date 4. Clean School Program <ul style="list-style-type: none"> a. Received A/P from school outside town boundaries b. 1st monitoring was conducted from 17th – 24th July c. More request received from outside schools d. Conducted PD session for the teachers of 2 rural schools e. Capacity Assessment conducted by James (JPRISM) 5. Other Activities: <ul style="list-style-type: none"> a. NTC participated in the Bula float by using recycling materials b. AHI Nafiza attended training in Japan on Environmental Education from 23/05/14 – 07/07/14
Lautoka City Council	<p>LCC has sustained the 3Rs activities</p> <ul style="list-style-type: none"> 1. Separate Collection of Recyclables <ul style="list-style-type: none"> a. Participation rate is very low 2. Home Composting <ul style="list-style-type: none"> a. 255 bins were sold until August 2014; January 2014 – August 2014-35 bins b. 15 bins were monitored awareness 3. Market Waste Composting <ul style="list-style-type: none"> a. From January 2014 they have sold 4350 kg (\$1305.00) b. Average of 1 tons/day is composted presently. c. Collected more than \$4000.00 from compost sales. 4. Clean School Program <ul style="list-style-type: none"> a. Letters sent to 49 schools to participate in clean school program b. A/P received from both rural and urban schools c. 1st round in progress d. LCC Officials and JET member were guests at Environment Day Celebration at Lautoka Andhra. 5. Vunato Disposal Site <ul style="list-style-type: none"> a. Section 2 is used for disposal b. 183 tonnes of recyclables collected by waste pickers as of Jan – July 2014. Average of 26tons/month. c. Repaired of Council's D6 machine 6. Awareness Raising Meeting and Visits <ul style="list-style-type: none"> a. Facilitation visit to VDS from Kiribati counterparts

	<ul style="list-style-type: none"> b. Free Bird Institute visited the VDS on August 8th, 2014 7. Grass Waste Composting <ul style="list-style-type: none"> a. Grass cuts from parks are raked and transported to council's garden mixed with mill mud for compost purpose.
Suva City Council	<ul style="list-style-type: none"> 1. Market Waste Separation Project <ul style="list-style-type: none"> a. 15% of waste reduce b. Total waste/month – 200 tons c. Compost – 21 tons d. Data of Composted Waste for March – July 2. Green School Program <ul style="list-style-type: none"> a. Engage schools in Green School Program b. 1st round of school monitoring to 6 schools c. 3rd Term Plan for the 6 schools d. Challenges is the Crude Dumping from schools 3. Green Village Project - BAGASAU <ul style="list-style-type: none"> a. Issued 3 separate bins for each blocks b. 2 compost bins each block c. Challenges – mixture of waste <ul style="list-style-type: none"> - Participation rate is low 4. 3R Activities & Awareness Programs <ul style="list-style-type: none"> a. # of compost bin sold from July – Aug: 9 bins b. Promotional Giveaway – 4 c. Sale of Compost – January to date: \$987.50 5. Upcoming Projects <ul style="list-style-type: none"> a. Central Collection Points. Partnership with Total Service Station b. Recycling and composting at My Suva Park c. PSC Green Initiative Taskforce 6. Training <ul style="list-style-type: none"> a. SHI Naresh attended the Enhancement of Solid Waste Management Capacity in Japan b. SAHI Robert attended a training in Japan on 7th – 11th of July 2014
Rakiraki Town Council	<ul style="list-style-type: none"> 1. On Going Awareness/Implementation <ul style="list-style-type: none"> a. Educational Awareness in schools b. Market Learning Centre c. Dump Attendant briefed on waste separation d. Separate bins with different types of waste e. Partnership with Rakiraki RLA for educational awareness on environmental background 2. Clean School Program <ul style="list-style-type: none"> a. 10 schools engaged in school program b. Environment Officers were selected from schools c. Teachers were briefed on how to implement the concept in school d. School visit by RTC officers and JPRISM officers e. RTC donated 1 c/bin to RPHS f. NGO donated 1 c/bin to RMPS

	<p>3. Composting</p> <ul style="list-style-type: none"> a. Bin has been painted to indicate the types of waste b. Green Bin for Green/Organic Waste <p>4. Naria Disposal Site</p> <ul style="list-style-type: none"> a. Conducted awareness to site attendant b. Collection recycled materials from the disposal site <p>5. New JICA Volunteer – August 2014</p> <ul style="list-style-type: none"> a. Mr. Ryoichi Koga started on 1st August for the period of 2 years b. Concentrate on Waste Management and Awareness program
DOE	<p>1. Finalization of the draft 3R policy</p> <ul style="list-style-type: none"> a. Consultant has been recruited b. Consultancy is intended for 3 months. i.e. Sep – Nov, 2014 c. TOR of the consultant has been prepared <p>2. Future Plan</p> <ul style="list-style-type: none"> a. Home Composting Subsidy Programme and CSP Proposal b. Expansion of 3R Activities to Govt, Local Authorities, Business Sector, NGOs, Communities, General public c. Establishment of Divisional Landfill <p>3. Endorsement of Draft Monitoring Sheet</p> <ul style="list-style-type: none"> a. Monitoring Sheet template was endorsed which the Council will use as a monthly reporting template.

5.0 Other Matters:

1. Forum members needed more assistance and information from DOE with regards to bottle & PET and e-waste recycling and how councils can maximize this opportunity to enable them to clear PET and e-wastes that make up bulk of the waste collected.
2. It was requested by the council members that DOE take lead role in organizing meeting with MOH-CBH to work together to have similar 3R message across as CBH is issuing notices for schools to continue with incineration practices and this is the opposite message of what 3R is trying to achieve.
3. Nadi Town council shared how they went straight down to grass roots level and targeted villages to practice 3R and found to be very effective.
4. SA – RTC also requested DOE to take EMA out and have it fully implemented especially the penalty provision. He also requested that DOE fully exercise its powers under the EMA across all sectors to be aware of the excessive burning that is being carried out in the West.
5. Nasinu Town council shared how they have tried their best and put in a lot of efforts in providing bins to squatter settlements in their jurisdiction but to no success. Requesting assistance also from DOE to assist in terms of awareness or under any provisions in the EMA to take people to task.
6. Mrs. Tagivuni of Grace Triffam Ministry gave her contact details and offered her services for any council counterpart who they could partner with to take on awareness and show practical ways in reusing waste materials.

7. Mere Leba: Collection of Recycle bottle by STC. How is it recycled? Ashnil said that the Shangri La Hotel is in partner with Coca Cola Amatil who is collecting the PET bottles from the site at the Fijian Shangri La Resort.
8. Briefed from Lami TC – So far the Council is practicing Composting at the market. Other 3R concept still pending due to limited resouces.
9. Nausori Town Council shared to the forum how the council is conducting waste sorting exercise awareness program to its vendors. This will assist them in terms of waste collection when their new market will be in operation. For their Clean Schools Program, they are targeting schools (officially speaking to their Principles) in their jurisdiction in terms of awareness but will kick start the program proper in 2015.
10. Nasinu Town Council shared how the council is challenged with the lack of resources (human resource) that is a major hindrance to the progress of their work. For, this they are grateful that a JICA volunteer is with them assisting in so many ways.

6.0 Closure of Meeting:

The meeting was closed by SEO-West with a wrap-up prayer by Mr.Taito of SCC before dispersal. Next meeting to be confirmed once minutes of 10th Bi-monthly meeting is circulated; collective decision will be made.

Annex 1: Attendance List

Annex: 2: Agenda

Annex 1: Attendance List

ATTENDANCE LIST
10TH JPRISM MEETING
VENUE: SIYA CITY COUNCIL
DATE: 22/08/2014
Time: 10.00am - 2.30pm

NAME	ORGANISATION	PHONE CONTACT	EMAIL ADDRESS
Mahesh Narayan	SEC		
Kk. Ja Kalo	STC		
Ryoichi Koga	RTC		
Sakura Tagawa	Grace Tiffin Ministry		
Sara Nagatani	Bagasau		
Rakita T. Lani	Rakita T. Lani		
Ashlyn Lai	Norin Town Council		
Talia Donni	Grace Tiffin Ministry		
Amaraa Benyue	DOE		
Joese Pakinif	MUTUATE	A/DS	

Annex 2: Agenda

Agenda of 10th JPRISM Bimonthly Meeting 22nd August, 2014 – Suva City Council

Agenda

10:00 am	Welcome (SA - SCC)/Chair
10.05 am	Opening Remarks (A/DS – MLGUDHE)
10.15 am	Introduction & Apologies [DOE] Review of 9th Bimonthly Meeting Minutes
10.30 am	Morning Tea
10.45 am	Presentation of Council Monthly Progress [Chair] <ul style="list-style-type: none">- STC- NTC- LCC- BTC- RTC- TTC- SCC- DOE
12.45 pm	Other Matters [Chair]
12.55 pm	Closing Remarks
1.00 pm	Lunch
2.30 pm	Dispersal

b. 11th meeting

**MINUTES OF MEETING
FOR
THE 11TH BI- MONTHLY MEETING
ON
JAPANESE TECHNICAL COOPERATION PROJECT FOR PROMOTION OF
REGIONAL INITIATIVE ON SOLID
WASTE MANAGEMENT IN PACIFIC ISLAND COUNTRIES (J-PRISM) FIJI
SIGATOKA COUNCIL CHAMBERS, 16TH OCTOBER, 2014.**

1.0 Prayer and welcome Remarks

Opening Speech – A/CEO STC - Mr. Abhay
Welcome – Sakenasa Namisi

2.0 Introductory

- Ms. Romika of Ba Town Council
- Mr. Josh Waqanivalu of Nausori Town Council
- Mr. Aminio of Sigatoka Town Council

3.0 Apologies

Present - Refer to Annex 1

Apology – Mr. Tulsi Ram – Tavua Town Council

4.0 Update of Progress Reports

Sigatoka Town Council	<p>CSP</p> <ul style="list-style-type: none"> ● School Monitoring ● 3R Bilibili Race preparation ● 5th Teachers meeting in September at Cuvu District School ● Upcoming events on final monitoring and judging to be held in November <p>Market Composting</p> <ul style="list-style-type: none"> ● Re-implemented after the opening of the new Sigatoka Market ● Purchasing of a trailer as approved by SA ● Placement of new posters at the market after the reopening ceremony <p>Hotel Waste Reduction Project</p> <ul style="list-style-type: none"> ● Site visit on the 5th of Sept. at the Fijian Shangri La's Hotel ● Purchased of bottle crusher and a shredder by the hotel ● Waste separation at source ● Construction of bottle shed <p>Disposal Site Rehabilitation</p> <ul style="list-style-type: none"> ● Signed of contract between the JICA JPRISM and Shankar & Sons on the 22nd of September ● Redefined of the survey peg by Survey Landmark Consultants under the supervision of Mr. Sato.
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	<ul style="list-style-type: none"> • Work at the rehabilitation site begins on 23rd of September and official opening on 28th of November, 2014. • Mr. Aminio of STC Works Manager emphasized the process of rehabilitating the existed site and the expectation of the site for operational and maintenance.
Nadi Town Council	<p>3R Recyclable Collection</p> <ul style="list-style-type: none"> • Separate Collection of Recyclables for the 3 wards continued. <p>Home Composting</p> <ul style="list-style-type: none"> • Total of 245 bins sold • 15 bins monitored and found to be satisfactory Eco Bags • Promotion of Eco Bags continues • Total of 1763 bags have been sold since 2012 <p>Clean School Program</p> <ul style="list-style-type: none"> • 2nd Monitoring conducted in 15 schools • Prepared for the final judging with the inclusion of DOE and MOE
Lautoka City Council	<p>3R program has been sustained so far on the exist area of recycling location.</p> <p>Market Waste Collection</p> <ul style="list-style-type: none"> • Managed to compost 800 – 1000kg of green waste. (5 days a week only : Monday – Friday) • Monitored market waste separation by market contractor and composting process at VDS. • 1.18 tons of peas (Dhal) which was unfit for human consumption and condemned for disposal. • Sold 5740 Kg (\$1,722.00) from January, 2014. (150% of 2013). • Sold 14.76 tons of compost from January 2011 worth \$4,428.00 • Long dry spell has affected the compost as it delays the process from the absence of moisture in the heap. <p>Koroipita Model Project</p> <ul style="list-style-type: none"> • 11 compost bins were sold and set up in Koroipita which involved the LRLA and NGO's • Total Households = 150 <p>Clean School Program</p> <ul style="list-style-type: none"> • Monitoring has been progressed for schools that submitted Action Plan • HI Wally participated in the Open Day at Lovu Sangam School • PET bottles collected from Lautoka Central Primary School <p>VDS</p> <ul style="list-style-type: none"> • Section is used for disposal • 251 tons of recyclables collected by waste pickers in 2013 (218 tones from Jan – Sept, 2014) : Average 24.22 tons/month. <p>3R Awareness Raising, Meetings and visits from 61 USP students in Suva included facilitation of site visit to disposal site, weighbridge operations, home composting, market waste composting etc.</p> <p>Grass Waste Composting</p> <p>Grass cut and collected from roadside and parks were disposed at the Council's garden. Mixed with mill mud and turned regularly to make compost.</p>
Rakiraki Town Council	<p>Market Awareness</p> <ul style="list-style-type: none"> • Trial for separation of waste with different bins was not effective as public and buyers were lack of knowledge. • Relocation of market dump site with the assistance of the Market Manager.

	<ul style="list-style-type: none"> • Placement of colored bins to indicate different wastes. • A laborer was assigned for the collection and separation of market wastes. <p>Clean School Program</p> <ul style="list-style-type: none"> • School monitoring continued but there will be no judging this year. <p>Naria Landfill</p> <ul style="list-style-type: none"> • Rest house at the landfill has been constructed which consists of washtub and toilet. Still awaiting letter from Lands Dept. to endorse for new water meter.
Suva City Council	<p>Market Waste Composting and Recycling</p> <ul style="list-style-type: none"> • Elaborated the tons of organic waste collected, composted, compost produced, # of bags sold and the sales from the selling of compost. <p>Compost Bins</p> <ul style="list-style-type: none"> • Total Sold = 23 - \$690.00 • Promotional Giveaway = 5 <p>Waste Paper Recycling</p> <ul style="list-style-type: none"> • South Pacific Recyclers collected 336kg of papers <p>Bagasau Green Village Project</p> <ul style="list-style-type: none"> • Total recyclables collected = 108.4/2 months • These include of cans, PET bottles and papers <p>Other Green Activity</p> <ul style="list-style-type: none"> • Revisited of some schools on crude dumping and open burning. Waste separation is practiced in schools • Visits from PNG delegation – Ms. Nanai Raga • In partnership with FELA in promoting 3R awareness in schools. • Visit by the Fiji Correction Services to learn on how to reduce waste going to the landfill. Thus, 10 bins were procured and installed at Korovou Prison and the initiatives have augured well to other correction centers in the Suva area. <p>Nausori Town Council Market Waste Composting</p> <ul style="list-style-type: none"> • Highlighted that they have started creating awareness to market vendors on waste separation which will commence when the new market opens. • According to their survey, out of all the solid wastes disposed, Nausori Market (104 vendors) has disposed more waste than the residential areas. • All vendors were advised to be part of the training if they want to be allocated a space at the new market. • Requested for a JICA Rep to assist them in Composting.
DOE	<p>Finalization of the draft 3R Policy</p> <ul style="list-style-type: none"> • Consultancy contract has awarded to Environment Consultant after it was endorsed by Minister • Consultancy period is 3 months <p>Review Process of NSWMS 2011-2014</p> <ul style="list-style-type: none"> • Conducted an In-house Review with HOU's on the 3 Strategies on 25/9/2014: • National Solid Waste Management Strategy 2011 - 2014 • National Liquid Waste Management Strategy 2006 • National Air Pollution Control Strategy 2007 <p>Adapt Waste Project</p> <ul style="list-style-type: none"> • Labasa Disposal Site – 90% of the work has completed <p>Future Plan</p> <ul style="list-style-type: none"> • Home composting Subsidy Programme Proposal

	<ul style="list-style-type: none"> • Expansion of 3R Activities • Post JPRISM Proposal <p>Other 3R Initiatives</p> <ul style="list-style-type: none"> • Conducting awareness outreach with SRLA to Waila 3A/3B settlement on proper waste management. • Conducted 2 weeks of WDP compliance inspection on facilities along Navua- Nausori corridor • Assisted the Dept. of Local Govt. on Green Town Assessment. • Conducted good waste management practices awareness in schools and villages in Kadavu.
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5.0 Other Matters

1. Mr. Shalend of LCC was asked to elaborate on the operation of the Waste Pickers at the disposal site? There were 35 w/pickers at 1 time at the site and they have to adhere to rules and meet requirements before they can be certified. Waste pickers attended OHS training organized by LCC.
24 tonnes of recyclables are utilized by the waste pickers and play a major role in managing the disposal site.
2. Mr. Ashnil asked that people who came looking for scrap are they also under waste pickers? Mr. Shalend replied that as long as they certified and have proper safety wear for picking waste.
3. Mr. Sakenasa of DOE congratulated the hardwork of the LCC Team in partner with LRLA to extend the concept of 3R to Koroipita Community. As LCC is very advanced in composting despite the dry spell, they still have the courage to produce quality manure out of the compost.
Likewise for SA Rakiraki Town Council who is spearheading the 3R program in Rakiraki Town Council.
4. JICA Rep for RTC has been granted an approval to be taken around LCC and RTC and also familiarized himself
5. Mere Leba of DOE confirmed that Nausoti TC has sent a formal request to DOE and JICA to assist them in getting another compactor truck for the garbage collection.
6. Romika of BTC has requested for JICA Volunteer to assist her in the project.
7. NTC and LCC appreciated the DOE and the government for the initiation of the subsidy program that will assist them in the home composting program. However, SCC questioned DOE on what criteria do they assessed the Council by giving away \$350.00?
8. Fiji Correction Services have requested SCC for the 2 days training on Compost Practices and SCC requested for the specialist to facilitate the training.
9. Aminio of STC said it is important to make use of waste to generate income such as chandeliers.

The meeting was closed with the closing remarks from Mr. Sakenasa before the Team departed for a site visit to a Rehabilitated Sigatoka Disposal Site.

Annex

NAME OF PARTICIPANTS	ORGANIZATION	CONTACTS
1. Nafiza Hakeem	Nadi Town Council	
2. Tomohiko Wakadaira		
3. ISOMA WAGANAWA		
4. Hi Vataruto Fumi	NAGAKI TOWN COUNCIL	
5. Rauldy P. Ciriayasan	Kakivaki Town Council	
6. Nareshwari SATO	Kakivaki Town Council	
7. Marie Sakai	UCLA Expert	
8. Robert - Rumbak	JICA Expert	
9. Shireen Singh	Department of Environment	
10. Ronika Mishra	Saya City Council	
11. Ramesh Mishra	Laasteka City Council	
12. ANANTO NREUMTHAN	Ra Town Council	
13. Kk Tlano	SIKATOK TOWN COUNCIL	
14. Lisa Mathai	STC	
15. SACENTHA NAMCHA	DUE - NWA	
16. Ashul Sharma	DOE - NWA	
	Siyatah Town Council	