

11 Republic of Marshall Islands

11.1 Outline of Activity in RMI

11.1.1 Dispatch Schedule

Total: 110 days

Dispatch	Date	Days	Dispatched Expert
1 st :	14 th of June, 2014 – 3 rd of July, 2014	21days	Haseyama
2 nd :	(No dispatch)		
3 rd :	26 th of October, 2014– 14 th of November, 2014	20days	Haseyama
	26 th of October, 2014 – 7 th of November, 2014	13days	Muranaka
4 th :	15 th of January, 2015 – 6 th of February, 2015	23days	Haseyama
5 th :	18 th of May, 2015 – 29 th of May, 2015	12days	Haseyama
6 th :	4 th of September, 2015- 11 th of September, 2015	8days	Haseyama
7 th :	4 th of November, 2015 – 16 th of November, 2015	13days	Haseyama

11.1.2 Counterpart Organization

Ministry of Public Works (MPW)
Office of Environmental Planning and Policy Coordination (OEPPC)
Office of Chief Secretary (OCS)
Majuro Atoll Waste Company (MAWC)
Environmental Protection Agency (EPA)
Ministry of Education (MOE)
Kwajalein Atoll Local Government (KALG)

11.1.3 Counterpart Members

Organization	Name	Title	Remarks
MPW	Wilbur Allen	Secretary	
OEPPC	Bruce Kijiner	Director	Resigned in May, 2015
	Lowell Alik	Director	Assigned in May, 2015
	Warwick Harris	Deputy Director	
OCS	Casten N. Nerma	Chief Secretary	Resigned in September, 2014
	Justina R. Langidrik	Acting Chief Secretary	Assigned in October, 2014
MAWC	Jorelik Tibon	General manager	
	Teliphen Neamon	Supervisor	
EPA	Lowell Alik	General Manager	Resigned in February, 2015
	Moriana Philip	General Manager	Assigned in September, 2015
	Julian Alik	Deputy General manager	Resigned in February, 2015
	Roney Arelong		Passed away in June, 2012
	Jessica Zebedee	Chief of the Education, Awareness and Information Division	Assigned in 2014
	Steave Ittu		
MOE	Gary Ueno	Secretary	
	Kanchi Hosia	Assistant Secretary	
KALG	Aeto Bantol	Chief Administrative Officer	
	Jesse Reketa	Assistant CAO	
	Wesley D. Lemari	Assistant Director	
MOE-Ebeye	Jelton Anjain	Assistant Secretary	
EPA-Ebeye	Odrikawa A. Jatios	Deputy General manager	
	Whitney Debrum	Education, Awareness and Information Division	Resigned in September, 2015

11.1.1 Activities and Outputs

The progress of the activities and its achievements from May 2014 to January 2016 are summarized in accordance with the PO and agreed indicators in next table.

Outputs/ Indicators	Achievement by FY 2013	Activity/ Progress				
		1 st dispatch	3 rd dispatch	4 th dispatch	5 th dispatch	6 th dispatch
Output1 NSWMS is implemented.	The NSWMS was drafted in March 2014 but it hasn't been approved by the National government yet.	<p>jj) Monitoring the NSWMS and its Action Plan The draft NSWMS was submitted to the Cabinet. Continuous support to OEPPC is still necessary.</p> <p>kk) Providing advice on information management for developing the Next NSWMS The policy to implement activities with sharing information between Majuro and Ebeye is confirmed.</p>	<p>jj) Monitoring the NSWMS and its Action Plan No specific activity conducted.</p> <p>kk) Providing advice on information management for developing a Next NSWMS Monitoring on the Action plan was conducted.</p>	<p>jj) Monitoring the NSWMS and its Action Plan Activity results were reported in the 4th JCC meeting.</p> <p>kk) Providing advice on information management for developing a Next NSWMS Deleting "Draft the next NSWMS for the year 2016-2020" from the PO was agreed in the 4th JCC meeting.</p>	<p>jj) Monitoring the NSWMS and its Action Plan The achievement of the progress indicators were monitored through the terminal evaluation survey.</p>	<p>jj) Monitoring the NSWMS and its Action Plan Activity results were reported in the 5th JCC meeting.</p>
Indicator 1-1: NSWMS and Action plan of Majuro is finalized.	The NSWMS was drafted in March 2014 but hasn't been approved by the National government yet.					<p>【Mostly Achieved】 OCS and OEPPC still continue to tackle to official approval of the NSWMS.</p>
Indicator 1-2: Implementation of Action plan is monitored and reviewed by the Monitoring Committee 3 times a year.	Planned in 2014		The first monitoring meeting was conducted in October 2014.		The second monitoring meeting was conducted in May, 2015.	<p>【Partially Achieved】 The results on the activities were reported in the 5th JCC meeting.</p>
Indicator 1-3: Progress report is issued annually.	Planned in 2014		Progress report was not issued yet.		<p>【Partially Achieved】 The individual activity results were reported.</p>	
Output2 Recycling system is improved in Majuro.	Paper briquettes are produced by MAWC since MAWC recovers recyclable items from the disposed waste at the dumpsite.	<p>ll) Providing advice for monitoring and evaluation of recycling system As a result of monitoring the progress of the activity, MAWC started planning a new waste collection system.</p>	<p>ll) Providing advice for monitoring and evaluation of recycling system No specific activity conducted.</p>	<p>ll) Providing advice for monitoring and evaluation of recycling system The result of the activities were reported in the 4th JCC meeting.</p>	<p>ll) Providing advice for monitoring and evaluation of recycling system The latest information of the activities were reported on the terminal evaluation survey</p>	<p>ll) Providing advice for monitoring and evaluation of recycling system The result of the activities were reported in the 5th JCC meeting.</p>
Indicator 2-1: Recycle products is increased year by year.						<p>【Mostly Achieved】 The result of the activities were reported</p>

Outputs/ Indicators		Achievement by FY 2013	Activity/ Progress					
			1 st dispatch	3 rd dispatch	4 th dispatch	5 th dispatch	6 th dispatch	7 th dispatch
Indicator 2-2:	Number of collected and exported materials are increasing year by year.							【Not Achieved】 The result of the activities were reported
Output3	Composting system is improved in Majuro.	MAWC is producing good compost by composting green waste well. As a result of monitoring the progress of the activity, MAWC has promoting more composting such as for gardening	mm) Providing advice for monitoring and evaluation on composting system No specific activity conducted.	mm) Providing advice for monitoring and evaluation on composting system The result of the activities were reported in the 4th JCC meeting	mm) Providing advice for monitoring and evaluation on composting system The result of the activities were reported in the C/p meeting	mm) Providing advice for monitoring and evaluation on composting system The latest information of the activities were reported on the terminal evaluation survey	mm) Providing advice for monitoring and evaluation on composting system The result of the activities were reported in the 5th JCC meeting	
Output 3-1:	Volume of compost production are increased in Majuro	Shown on above table					【Mostly Achieved】 The result of the activities were reported	
Output4	School-based recycle system is introduced in Majuro.	Environmental and education awareness-raising activities are activity conducted, and some materials such as video and a booklet were developed and utilized in the schools.	nn) Providing advice for monitoring and evaluation on school based recycling system As a result of monitoring the progress of the activity, environmental education and awareness-raising activity have been implemented well with cooperation of a JOCV.	nn) Providing advice for monitoring and evaluation on school based recycling system No specific activity conducted.	nn) Providing advice for monitoring and evaluation on school based recycling system The result of the activities were reported in the 4th JCC meeting	nn) Providing advice for monitoring and evaluation on school based recycling system The latest information of the activities were reported on the terminal evaluation survey	nn) Providing advice for monitoring and evaluation on school based recycling system The result of the activities were reported in the 5th JCC meeting	
Indicator 4-1:	Manual/material of awareness rising is developed.	【Achieved】 Booklet and video were developed in 2012.			【Mostly Achieved】 This activity has been implemented continuously.			
Indicator 4-2:	Campaign activities are conducted on a regular schedule.	【Completed】			【Mostly Achieved】 This activity has been implemented continuously.			
Indicator 4-3:	Recycle programs are implemented in over 80% of public elementary schools in Majuro.	Recycle programs are implemented in over 80% of public elementary schools in Majuro.			【Partially Achieved】 This activity has been implemented continuously.	A C/p of EPA attended the Clean School Program (CSP) activities in Ebeye.	A C/p of EPA attended the monitoring of the CSP.	

Outputs/ Indicators	Achievement by FY 2013	Activity/ Progress					
		1 st dispatch	3 rd dispatch	4 th dispatch	5 th dispatch	6 th dispatch	7 th dispatch
<p>Solid waste management system improved in Ebeye.</p> <p>Output5</p>	<Ebeye> The Action plan was still at the planning stage and hasn't been officially approved. Some environmental education and awareness activities were implemented. The dumpsite was not operated well and became an open dumping with open burning. It was improved by allocating a staff at the dumpsite in 2012 and security fence was installed by GGP. Daily waste collection service is provided in Ebeye.	<p>oo) Support for Preparing the Action Plan for Ebeye</p> <p>Not specific activity conducted.</p>	<p>oo) Support for Preparing the Action Plan for Ebeye</p> <p>Workshop to draft an Action plan was conducted under J-PRISM workshop..</p>	<p>oo) Support for Preparing the Action Plan for Ebeye</p> <p>The activity results were reported in the 4th JCC meeting. (TV conference).</p>	<p>oo) Support for Preparing the Action Plan for Ebeye</p> <p>The latest information of the activities were reported on the terminal evaluation survey</p>	<p>oo) Support for Preparing the Action Plan for Ebeye</p> <p>The activity results were reported in the 5th JCC meeting. (TV conference).</p>	<p>oo) Support for Preparing the Action Plan for Ebeye</p> <p>The activity results were reported in the 5th JCC meeting. (TV conference).</p>
		<p>pp) Support for Awareness Program on 4Rs</p> <p>Not specific activity conducted.</p>	<p>pp) Support for Awareness Program on 4Rs</p> <p>The Action plan of EPA was drafted in the Workshop</p>	<p>pp) Support for Awareness Program on 4Rs</p> <p>The awareness-raising activities were conducted.</p>	<p>pp) Support for Awareness Program on 4Rs</p> <p>The plan of teacher training was drafted.</p>	<p>pp) Support for Awareness Program on 4Rs</p> <p>The monitoring on the CSP was conducted.</p>	<p>pp) Support for Awareness Program on 4Rs</p> <p>The monitoring on the CSP was conducted.</p>
		<p>qq) Support for Paper Fuel Program</p> <p>Not specific activity conducted.</p>	<p>qq) Support for Paper Fuel Program</p> <p>As a result of several discussion with C/Ps, this activity will be postponed to 2015</p>	<p>qq) Support for Paper Fuel Program</p> <p>No specific activity.</p>	<p>qq) Support for Paper Fuel Program</p> <p>No specific activity</p>	<p>qq) Support for Paper Fuel Program</p> <p>Drafting of the paper fuel program was discussed.</p>	<p>qq) Support for Paper Fuel Program</p> <p>The paper fuel program was drafted.</p>
		<p>rr) Support for Improvement of Dumpsite</p> <p>Discussion on improving the dumpsite was started.</p>	<p>rr) Support for Improvement of Dumpsite</p> <p>Improvement of the dumpsite was started from the workshop/training.</p>	<p>rr) Support for Improvement of Dumpsite</p> <p>The progress of the dumpsite improvement was monitored.</p>	<p>rr) Support for Improvement of Dumpsite</p> <p>The progress of the dumpsite improvement was monitored.</p>	<p>rr) Support for Improvement of Dumpsite</p> <p>The progress of the dumpsite improvement was monitored.</p>	<p>rr) Support for Improvement of Dumpsite</p> <p>The progress of the dumpsite improvement was monitored.</p>
		<p>ss) Support for Improvement of Waste Collection Plan</p> <p>Not specific activity conducted.</p>	<p>ss) Support for Improvement of Waste Collection Plan</p> <p>The New waste collection plan was drafted in the workshop.</p>	<p>ss) Support for Improvement of Waste Collection Plan</p> <p>The New waste collection plan has not been started due to the delayed arrival of the new waste collection vehicles.</p>	<p>ss) Support for Improvement of Waste Collection Plan</p> <p>The New waste collection plan has not been started due to the delayed arrival of the new waste collection vehicles</p>	<p>ss) Support for Improvement of Waste Collection Plan</p> <p>The new waste collection vehicles were arrived in Ebeye. New waste collection service was started in time and motion study was conducted.</p>	<p>ss) Support for Improvement of Waste Collection Plan</p> <p>The new waste collection service was started in Ebeye in September. The time and motion study was conducted.</p>
Indicator 5-1:	One C/P has some idea, but not propose to the decision makers of the Government officially.		New waste collection system was planned during the workshop, and proposed to the Mayor during the workshop.				<p>ss) Support for Improvement of Waste Collection Plan</p> <p>The new waste collection service was started in Ebeye in September. The time and motion study was conducted.</p>
Indicator 5-2:	Open burning was still observed in 2013.		<p>Open burning at the dumpsite was stopped after the workshop/ training conducted in the early November, 2014.</p>				<p>ss) Support for Improvement of Waste Collection Plan</p> <p>The new waste collection service was started in Ebeye in September. The time and motion study was conducted.</p>
Indicator 5-3:	Planned in 2014 (This activity will be implemented after			<p>Fully Achieved</p> <p>Segregation has been implemented at the site.</p>			<p>ss) Support for Improvement of Waste Collection Plan</p> <p>The new waste collection service was started in Ebeye in September. The time and motion study was conducted.</p>

Outputs/ Indicators	Achievement by FY 2013	Activity/ Progress					
		1 st dispatch	3 rd dispatch	4 th dispatch	5 th dispatch	6 th dispatch	7 th dispatch
adequately in dump site.	the improvement of the dump site).						
Indicator 5-4: Bulky waste collection is separated from the common household waste.	Planned in 2014 (This activity will be implemented after the improvement of the dump site.)			【Fully Achieved】 Segregation has been implemented at the site.			
Indicator 5-5: Education on 4R promotion is conducted for all school classrooms.	【Completed】4R education and its training workshop were conducted in Nov. of 2013 for all schools in Ebeye.			【Fully Achieved】 Visits to all schools was completed.			Monitoring activities on CSP were conducted.
Indicator 5-6: Teacher training on 4R promotion is conducted for all teachers in Ebeye. *4R: Refuse, Reduce, Reuse, Recycle	【Completed】 4R education and its training workshop were conducted in Nov of 2013 for all schools in Ebeye.					【Fully Achieved】 Teacher trainings on CSP were conducted.	Monitoring activities on CSP were conducted.
Indicator 5-7: Plan for paper fuel is drafted	Planned in 2014		This activity will start in 2015.				【Mostly Achieved】 The Plan on paper fuel was drafted.

11.2 Activity Report of Each Output

11.2.1 Output1: NSWMS is implemented.

a. Activity of the First Dispatch (from 14th of July to 1st of August, 2014)

The C/Ps of OEPPC submitted the draft National Solid Waste Management Strategy(NSWMS) to the Minister in Assistance to the President and were waiting his comments and feedbacks.

b. Activity of the Third Dispatch (from 26th of October to 14th of November, 2014)

There is no progress in the endorsement of the NSWMS.

The Action plan was developed in the SPREP sponsored workshop in 2012. The C/P well remembered the contents of the Action Plans, C/Ps reviewed and commented well in the monitoring activity. It was good opportunity to remind and review their footprint of the activities.

The Action Plan was monitored with C/Ps on 29th of October, 2014. In this meeting, only the progress rate on each activity was discussed. Therefore, C/Ps needed to continue identifying the reason of the limited progress of some activities. After this meeting, OEPPC reviewed the format of the monitoring sheet and distributed to each stakeholder. This revised format included some new items such as finance, next activity schedule and challenges. The result of the monitoring of the Action Plan is shown below. Some cells were not been filled up and they needed to be filled up by the C/Ps by the next visit of the Expert.

Table 11-1: Activities of the Action Plan and its monitored progress

Action	Situation as of July 2014	Progress (% complete)
1. Conduct annual coordination workshop to update the Education and Communication section of the NWMS, devise short-term action plans, and develop a communication strategy.	NSWMS is not endorsed.	25
2. Develop and implement annual coordinated activities focusing on better national waste management and home-based recycling	EPA, MAWC and stakeholders conducted some activities.	25
3. Develop and implement an accreditation program in sustainable waste management practices for communities and other sectors including education, commercial, industrial, tourism, and fisheries.	Partial	25
4. Conduct a review of relevant laws, regulations and ordinances pertaining to solid waste and hazardous substances management, including a review of RMI's obligations under relevant regional and international multilateral environmental agreements.	Gate Fee system at dump site has been started	50
5. Strengthen the enforcement and compliance capacity within the country.		TBC
6. Broaden the scope of the J-PRISM JCC to maintain a comprehensive overview of the waste situation, and competently advise of progress and barriers to implementing the RMI National Waste Management Strategy	Not started	0
7. Develop and implement container deposit legislation (CDL) for beverage and alcohol containers, lead-acid batteries, and other selected waste items, which will encourage their return and provide revenue for their export and recycling.	Planning under SPREP's assist	50
8. Develop and implement affordable, and socially-equitable waste collection fees and landfill tipping fees on Majuro Atoll.	Gate fee already implemented.	75
9. Select and commission a new landfill site as a matter of priority	Planning stage	75
10. Select and commission a new landfill site as a matter of priority	On going	50

Action	Situation as of July 2014	Progress (% complete)
11. Decommission and secure the existing dumpsite	On going	50
12. Conduct a time-motion study of the collection service to identify inefficiencies and areas for improvement.		75
13. Develop and implement a preventive maintenance program for all equipment.		50
14. Prioritize funding in the Compact budget for expansion of waste collection services in Majuro (including procurement of additional equipment) in collaboration with the private sector where practical.		75
15. Prioritize waste management training at the national level and improve engagement with local and regional higher learning institutions and instructors		25
16. Prioritize vocational waste management training at the local government level, with priority emphasis for Majuro, Ebeye, Wotje, and Jaluit.		25
17. Implement training in occupational health and safety for all workers engaged in waste management activities – reference ILOs WARM manual.		25
18. Develop and implement waste minimization and management plans for each populated atoll - immediate priorities are Ebeye, Wotje, and Jaluit		10
19. Develop and implement a plan for an integrated waste minimization system encompassing the 4Rs.		50
20. Scale-up the reusable bag promotion campaign and assess other options for reducing plastic bag usage.		25
21. Scale-up the manufacture of paper briquettes	Well Implemented	75
22. Scale-up the existing composting program	Well implemented	75
23. Collect, process, and export of legacy scrap metal in the Marshall Islands in conjunction with the private sector.		25
24. Expand the community recycling initiative in Majuro by providing at least an additional 10 recycling points each year (to be accompanied by public awareness).	Instead of the recycling point, new waste collection system has been considerate.	50
25. Prioritize the repair of the PET plastic bailing machine and re-commence export of PET plastics.	Planning stage	75
26. Prioritize the export of used lead acid batteries, and re-commence the collection/acceptance of batteries.	Exported to Korean recycle company	75
27. Maintain and issue suitable personal protective equipment and deliver annual worker training to operational staff at the dumpsite.	Staff meeting has been conducted	75
28. Collect and report data on all recycling programs in RMI to track recycling rate and annual progress towards achieving the goals.		TBC
29. Integrate POPs National committee into Waste Management Steering Group		25
30. Secure funding to complete National Implementation Plan review from UNEP/GEF-5.	Secured the Money	50
31. Implement NIP review recommendations	Just started from last July.	25
32. Analyze the relative cost-benefits of RMI becoming a party to the Waigani Convention.		25
33. Complete the Marshall Islands Waste Oil Management Plan		50
34. Negotiate safe and permitted transport by the regional airline of waste oil samples for analysis		25
35. Complete National E-waste and ODS management policies and strategies		50
36. Incorporate best practice disposal or recycling practices for ODS and E-waste into routine landfill operations		25
37. Incorporate integrated medical waste management into Hospital operational plans and budgets	Already incorporated	100
38. Relocate high temperature incinerator to new secure disposal site and commission it.	Already installed	100

Action	Situation as of July 2014	Progress (% complete)
39. Establish controlled and licensed medical incinerator ash disposal site.		50
40. Regulate and license hospital incinerator operation		
41. Implement annual refresher training for all Orderlies and incinerator operators		25
42. Monitor medical waste management performance		25
43. Review best options (including cost-effectiveness) for atoll medical waste management, as a component of the review of atoll waste management.		25

c. Activity of the Fourth Dispatch (from 15th of January to 6th of February, 2015)

The NSWMS was finally drafted and submitted to the Minister in Assistance to the President in September, 2014, but was not endorsed yet. Based on original PO, two NSWMSs were developed; NSWMS (2011-2015) in 2011 and NSWMS(2016-2020) in 2015; however, due to the delay of the drafting, the finalization of the developed NSWMS (2011-2015) was delayed to 2014, and it was agreed that the drafted NSWMS(2011-2015) was modified to NSWMS (2014-2018) with updating the data and deletion of the activity 1-6“ Draft the next NSWMS for the year 2016-2020” from PO in the 4th JCC meeting.

d. Activity of the Fifth Dispatch (from 18th to 30th of May, 2015)

The C/P meeting to monitor the Action Plans was held on 29th of May, 2015. This meeting was organized by OEPPC. OEPPC, MAWC and EPA to report their respective activities. The monitoring in Ebeye was also conducted in Ebeye in May, 2015 and the results were reported in this meeting. C/Ps reported the achievements and the issues of their activities as well as their next challenges as shown in the table below.

Table 11-2: The summary of the reported matters in the C/P meeting on 29th May, 2015

	Success Stories/Good Peactices	Matters to be improved
MAWC	Composting and Rebuilt/Recycled goods Next steps: Improvement/Expansion of the yard to be used for composting and recycling is needed.	Challenging to improve the waste collection sytem Assign a dedicated staff Proactive schedule to meet with landowners Implement existing plan
EPA	Environmental Education through-out schools Hands on activities with students Visits to schools on Ebeye Gardening/compost project	Reaching out to communities Visiting more churches Implementing on plastic bag ban in Majuro and eventually through out Marshall Islands Even though environmental education is conducted through schools children does not always get the full context if it's not practiced at home with parents. Which is why it's important for the awareness team to go out to communities. Next Challenges: Making sure that we can come up with ideas or activities that children can take them home and share with parents. Education on waste doesn't begin and end at school; nor Will it ever end. It's an everlasting issue that needs to be brought to the table.

		Parents need to start doing their part when it comes to waste or else children won't Take waste issues seriously. This is now an issue that we can no longer run from.
OEPPC	<p>Drafting the national solid waste management strategy and action plan</p> <p>Reason of Success:</p> <ul style="list-style-type: none"> - Country driven - Broad spectrum of societies involved in the development process - Faith based org., youth group, women group, mayors, senators, NGO's, private sector, government, SOEs, SPREP and JICA 	<p>Implementation of the NSWMS&AP</p> <ul style="list-style-type: none"> - Yet to be endorsed - Limited commitment by relevant lead agencies <p>How to overcome:</p> <ul style="list-style-type: none"> - Cabinet needs to endorse - Thus giving mandate to lead agencies to prioritize, program funds, implement and monitor
Ebeye	<p>School activities</p> <p>Reason of success</p> <ul style="list-style-type: none"> - Proactive visiting - Good materials (Presentation, Posters and so on) 	<p>Limited Budget:</p> <p>Countermeasures:</p> <p>Access to the budget is to be improved.</p>

Mr. Warwick Haris, The C/P of OEPPC, visited Ebeye with the JICA Expert and he supported the monitoring of the action plan in Ebeye in November 2015. C/Ps from KALG, MOE, EPA and MOH attended the monitoring meeting. Mr. Haris advised to promote improvement of the SWM system in Ebeye particularly in medical waste issues in relation to the Pac Waste Project assisted by SPREP.

Mr. Haris also advised to improve the capacity on medical waste treatment such as operation of the incinerator of the medical waste.



Interview by OEPPC in the monitoring meeting



Site observation

<The incinerator was donated but still stored in the box at the hospital.>



Site Observation

<SteriMed-70 the Healthcare Waste Processor>



Site Observation

<The bins for the sharps waste>

Table 11-3: Result of the monitoring on OUYPUT 5

Objectively Verifiable Indicators	Means of Verifications	Actual
5- 1 Plan for improvement of waste collection is drafted.	5-1Plan for improvement of waste collection	Plan drafted. New waste collection vehicles and bins not arrived yet.
5-2 The burning in the open dumping decreased to 0 in Ebeye	5-2,5-3&5-4 Evaluation results of Management level on dump site	Open burning has been eliminated.
5-3 The waste is located separately and adequately in dump site.		Improved
5-4 Bulky waste collection is separated from the common household waste.		Bulky waste collection has been separated from the common household waste.
5-5 Education on 4R promotion is conducted for all school classroom.	5-5&5-6Records on education activities/actions on 4R promotion.	EPA conducted them.
5-6 Teacher training on 4R promotion is conducted for all teachers in Ebeye. *4R: Refuse, Reduce, Reuse, Recycle		Planned in September 2015. Preparation meeting was commenced in May 2015.
5-7 Plan for paper fuel is drafted	5-7 Drafted plan for paper fuel.	Planned in 2015

e. Activity of the Sixth Dispatch (from 4th to 11th of September, 2015)

The NSWMS was submitted to the Minister in Assistance to the President in September 2014, but it was not endorsed yet. The reasons of these delay of the endorsement was discussed in the meeting of the final evaluation survey. As the result of the meeting, OCS and OEPPC decided to cooperate to solve this issues.

f. Activity of the Seventh Dispatch (from 4th to 16th of November, 2015)

The update of the activites was reported in the 5th JCC meeting. (Refer to “9.2.5. Other activities related to SWM”.)

11.2.2 Output2: Recycling system is improved in Majuro

11.2.3 Output3: Composting system is improved in Majuro

a. Activity of the First Dispatch (from 14th of July to 1st of August, 2014)

As a result of a monitoring of the progress of the activities of the recycling, it was identified that MAWC started planning the new waste collection system including segregated collection. This activity was supported by a SV, aiming to introduce so-called curbside station collection system increase the efficiency of the collection service. It was identified that the MAWC continued to promote compost in the agriculture area such as watermelons farm.

b. Activity of the Third Dispatch (from 26th of October, 2014 - 14th of November, 2014)

The pilot project of the new waste collection system was monitored. Before implementation of the pilot project, the MAWC stopped using the old collection points where yellow colored drums were installed.

c. Activities of the Fourth Dispatch (from 15th of January to 6th of February, 2014)

The activity results of Output2 and 3 were reported by MAWC in the 4th JCC meeting. The trend of income from composting and recycling was reported.

Table 11-4: Trend data of the income from the composting and recycling in MAWC

(Unit: USD)	2009	2010	2011	2012	2013	2014
Compost	1,603	3,003	0	3,288.5	9,452.0	3,442.0
Parts and recycles				5,830.21	11,291.46	10,144.10
Other Recycled materials	7,6124.37	53,464.53	35,238.01	54,019.79	34,705.04	16,258.06

d. Activities of the Fifth Dispatch (from 18th to 30th of May, 2015)

The activity results of Output 2 and 3 were reported by MAWC in the C/P meeting.

e. Activity of the Sixth Dispatch (from 4th to 11th of September, 2014)

The activity results of Output2 and 3 were monitored through the final evaluation survey. The production amount of compost and recyclables was reported.

f. Activity of the Seventh Dispatch (from 4th to 16th of November, 2015)

The activity results of Output2 and 3 were reported by MAWC in the 5th JCC meeting. The production amount of compost and recyclables was reported.

Table 11-5: The data of the income from composting and recycling in MAWC

(Unit: USD)	2009	2010	2011	2012	2013	2014	2015
Compost	1,603	3,003	0	3,288.5	9,452.0	3,442.0	4,672.21
Parts and recycles				5,830.21	11,291.46	10,719.10	8,292.09

11.2.4 Output4: School-based recycle system is introduced in Majuro

a. Activity of the First Dispatch (from 14th of July to 1st of August, 2014)

New Chief of the environmental education and awareness division of EPA was assigned. It was expected that the environmental education and awareness activities can be continued actively with the assistance of a JOCV.

b. Activities of the Fourth Dispatch (from 15th of January to 6th of February, 2014)

The activity results of Output4 were reported by EPA in the 4th JCC meeting.

c. Activities of the Fifth Dispatch (from 18th to 30th of May, 2015)

The activity plan in 2015 on environmental education was discussed between EPA and JICA expert. Environmental education will be conducted not only in Majuro but also in Ebeye. The teacher training on environmental education will be held under cooperation of EPA-Majuro in September, 2015. The plan of the teacher training was shared by both EPA-Majuro and EPA-Ebeye.

d. Activity of the Sixth Dispatch (from 4th to 11th of September, 2015)

The C/P of EPA-Majuro attended the Clean School program (CSP) held in Ebeye in September, 2015.

e. Activity of the Seventh Dispatch (from 4th to 16th of November, 2015)

The C/P of EPA-Majuro attended the monitoring activities of the CSP in Ebeye. She reported the results of the monitoring in Ebeye in the 5th JCC meeting. CSP will be introduced not only in Ebeye but also in Majuro after 2016.

11.2.5 Output5: Solid waste management system is improved in Ebeye

a. Activity of the First Dispatch (from 22nd to 28th of July, 2014)

a.1. Counterparts

In July 2014, due to the temporal medical leave of a key C/P, some of the activities were not able to continued that revealed the lack of communication within and among the agencies and realized the necessity to work as a team among KALG, EPA and other stakeholders. The organizational framework of the SWM in Ebeye is shown below.

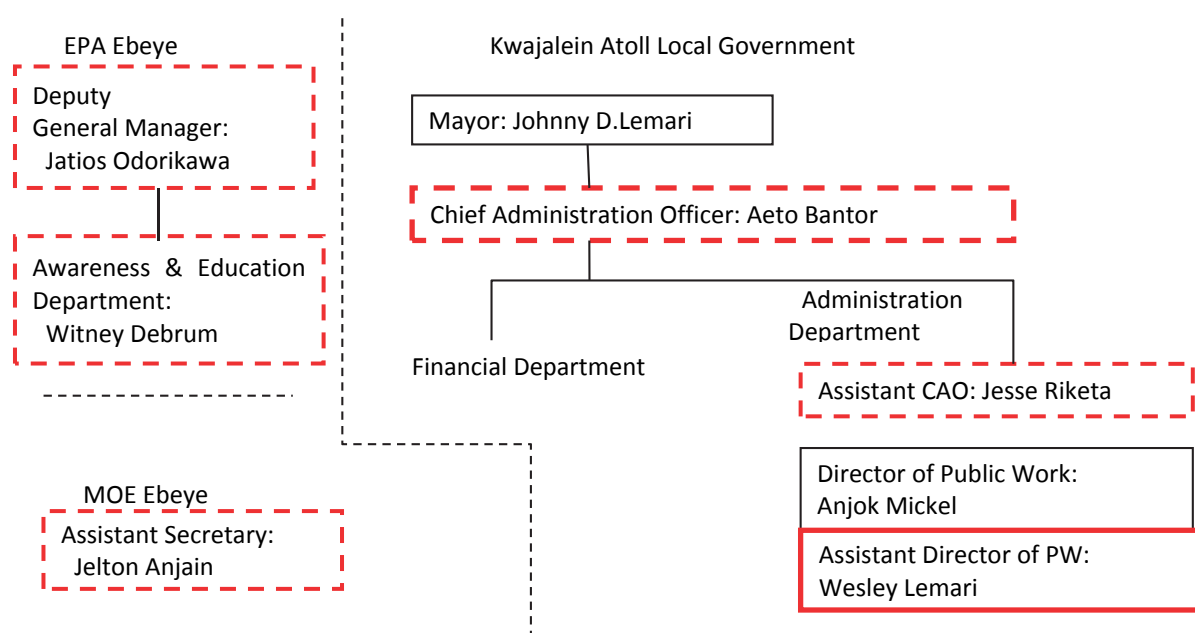


Figure 11-1: Organizational framework in Ebeye

a.2. Results of each output

Some activities related to the indicators of the PO were not able to be monitored during this dispatch due to the absence of the key C/P for his medical leave. Only some updates of relevant information were informed and observed by the Expert.

Indicator5-1 : Plan for improvement of waste collection is drafted.

Household waste was used to be collected by a compactor truck, and waste in the big containers which were installed on the side of the streets and in front of the market were collected by a container truck and a forklift. Regular daily collection service were not able to continue for three weeks because the compactor truck and folk lift had trouble on their maintenance trouble. Therefore, as the countermeasure PW used the container truck, a wheel loader and a dump truck to collect the waste but some waste was overflowed from the containers due to limited frequency and capacity of the collection of these heavy equipment. Although the service level of the collection became lower, taking a countermeasures with available vehicles should be appreciated. It was highly recommended the KALG to plan and procure a new vehicle for the collection.



The waste collection vehicle that was broken



Trash was filled up on the load side



The wheel loader collects waste as an alternative method.



Use a container truck for collecting waste



Transferring the waste from a wheel loader to dump truck

Indicator5-2 : The burning in the open dumping decreased to 0 in Ebeye.

The burning waste observed in the open dumpsite was a major issue at the dump site. The reason of the burning waste was that some children burned the waste to collect copper to sell and sometimes some hospital staffs burned their waste as well. Although, a security staff was allocated before at the dumpsite, he was laid off due to the limited budget of the SWM in the Government in 2014. In order to stop open burning, the allocation of a security at the dumpsite should be highly prioritized.



Dump site (from outside of gate)



Smoke and fire in the dump site



An excavator of PW



No Segregation of bulky waste

Indicator5-3 : The waste is located separately and adequately in dump site.

This activity was not implemented yet, and it will be started once the dumpsite is improved.

Indicator5-4 : Bulky waste collection is separated from the common household waste.

Same as the above reason, this activity was not yet implemented.

Indicator5-5 : Education on 4R promotion is conducted for all school classrooms._

Workshops at schools were conducted regularly by EPA. Some schools also requested EPA for additional school visits.

Community workshops for the environmental awareness in Ebeye were conducted in July, 2014. The workshop was planned by the C/Ps of EPA-Majuro, MAWC and the JOCVs. KALG supported the activity logistically. EPA C/Ps delivered a good presentation while KALG should show more presence in the awareness activities in the future under their initiative.

DATE: 23 and 24 of July, 2014 17pm – 18:30 pm
ATTENDING: Residents in Ebeye Closely 40persons attended each
CONTENTS: Introduction of 3R efforts in Majuro for Ebeye
- Waste issues in Ebeye
- Presentation by JICA expert
- Introduction of environmental education activities in Mauro by EPA-Majuro
- Introduction of 3R activities in Majuro by MAWC
- Presentation on environmental efforts by JOCV who working in EPA-Majuro



A staff of MAWC delivered a presentation about environmental education for the community. The JOCV volunteers supported him.



Approximately 40 residents attended the workshop

Indicator 5-6 : Teacher training on 4R promotion is conducted for all teachers in Ebeye. *4R: Refuse, Reduce, Reuse and Recycle

Additional teacher training was not conducted after the previous teacher training conducted under J-PRISM in November, 2014.

Indicator 5-7 : Plan for paper fuel is drafted

This activity was not been implemented due to the absence of the key C/P.

a.3. Preparation of the dumpsite improvement

Preparation of the dumpsite improvement works were discussed with C/Ps in Ebeye. Concept of the improvement was agreed in the meeting with C/P who was on medical leave in Majuro.

Schedule: November of 2016

Trainee: C/Ps in Ebeye

Contents: Construction of the cell with semi-aerobic landfill

Instruction of Leachate treatment

Cost Share:

Preparing Pipes and Fuel by JICA,

Sand, empty drums, used tires by KALG



However, some issues were observed as shown below.

- ✓ Laying off of some operation staffs due to the limited budget of the KALG
- ✓ Open burning at the dumpsite every day
- ✓ The maintenance problem on the collection vehicle
- ✓ Backup of the key staff during its absence should be considered as institutional management issue

The above mentioned issues were reported to the project office of J-PRISM and JICA headquarter. As the result of the discussion, activity plan in November was considered.

b. Activity of the Third Dispatch (from 26th of October to 17th of November, 2014)

The on-site workshop/training on rehabilitation of the existing dumpsite in Ebeye was originally planned to be conducted in November 2014. However, considering the current situation and issues of SWM, the JICA Expert decided to modify some contents to include Capacity Assessment and formulation of the Action Plan in the workshop.

The modified objectives of the training are:

- ✓ To appeal the management issues of the SWM to the decision makers of the Local Government so that they can put the issues into a priority;
- ✓ To develop a draft waste collection plan for a new collection service.
- ✓ To train daily operational and maintenance at the dumpsite. It is important to plan before any major improvement activities are conducted.
- ✓ To share good practices such as environmental education activities conducted in Ebeye in collaboration with EPA and C/Ps from Majuro.

The workshop and field training at dumpsite were conducted from 31st of October to 7th of November, 2014 by following the schedule below.

Table 11-6: Activities in Ebeye in the third dispatch

Date		Activities	
30/OCT	THR	12:00 Experts arriving Kwajalein airport 15:00 CP meeting for preparation	
31/OCT	FRI	The day 1 of Workshop - Objective - Exercise for developing operation manual of dump site - Lecture for waste collection and financial issues(tipping fee system)	
3/NOV	MON	The day 2 of work shop: ▪ Capacity assessment for individuals and the organization ▪ Brine storming and Group work for extracting and identifying issues and developing countermeasures ▪ Presentation on their own actions	
4/NOV-5/NOV	TUE-WED	The day 3 and 4 of Work shop – Waste collection plan ▪ Analyze current issues of waste collection and transportation ▪ Drafting a conceptual plan of waste collection	Fieldwork at the dump site Moving waste, forming embankment and leveling using heavy equipment
6/NOV	THR	Preparation of presentation	
7/NOV	FRI	Presentation to the Mayor by CPs	
10/NOV-11/NOV	MON-TUE	▪ Follow up activities on workshops ▪ Field work at the dumpsite	
12/NOV	WED	▪ Conclusion, confirm schedule and activities after training ▪ Hasevama will be leaving for Majuro	

The workshop started with the capacity assessment through identifying the existing issues of the SWM, then based on these issues C/Ps developed an Action Plan through a group discussion, and at the end of the

workshop, the C/P of PW and EPA presented their Action Plans to the Mayor on 7th of November. All members of the council were invited to this presentation, but only a chairman of the council showed up for a few moment. However, C/Ps were able to recognize the importance of informing their issues and proposing countermeasures to the Mayor and the political leaders.



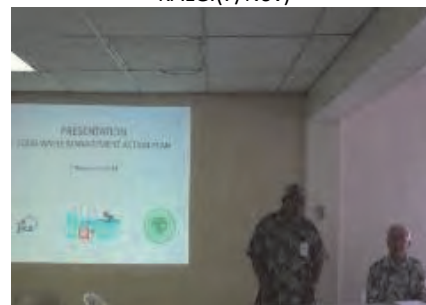
Discussion of Action plan (3/Nov)



C/P delivered a presentation to Mayor of KALG.(7/Nov)



Discussion among C/Ps after the presentation (7/Nov)



Mayor attended the presentation (7/Nov)



Group photo

The developed Action Plan for PW and EPA are shown below.

Table 11-7: The Action plan of PW

1. Develop Solid Waste Management Plan		Score of Capacity Assessment	High priority (○)	Activity to Start	Person in charge	2014		2015											
						11	12	1	2	3	4	5	6	7	8	9	10	11	12
1	Conduct Waste GENERATION & COMPOSITION Survey	2		Conduct Residential waste generation survey	We&Wh														
2	Develop Ebeye Waste Management Action Plan	1	○	Develop a SWM Action Plan for Ebeye	J&We&SC														
4	Implement the Action Plan	1		Implementation starts	We														
6	Hold a Steering Committee of Waste Management to share the Plan, situation, problems...etc..	2		Hold a Steering Committee	EPA&PW&MOH & MOE & NGO & Kajur														
7	% of Secured budget towards requiring/proposed budget	5	○	Prepare the proposal for the budget	We&Mario														
8	Appeal the activities/problems/Plan to the leaders/Mayer	5		Share with issues with council /Mayer	J&We														

2. Maintain the dumpsite		Score of Capacity Assessment	High priority (○)	Activity to Start	Person in charge	2014		2015											
						11	12	1	2	3	4	5	6	7	8	9	10	11	12
1	Develop a Operation plan of the dumpsite	1	○	Draft an operation plan of dumpsite	We&Steering committee														
2	Implement the operation at the dumpsite	1	○	pushing waste is on going Propose to secure landfill personnel	We J&We														
3	Record the Operation work (time, date, work, name of worker...etc..)	1		Draft a form of recording the operation Start recording	We Operator														
4	% of allocation of heavy machines to use at the dumpsite	3		on going (pushing by wheel loader) Increase the use of the excavator to twice a week	Operator We														
5	Conduct regular maintenance on heavy equipment	5		on going	operator&mehanic														
6	Allocate operation team at the dumpsite	1	○	Propose to Mayer and council for more staffs	We														
7	Respond to complains such as fire	2		Announce to Hospital and the public to stop burning	We														
8	Provide Human capacity development/training to the	1		Training with JICA	We														

3. Provide Waste Collection Service		Score of Capacity Assessment	High priority (○)	Activity to Start	Person in charge	2014		2015											
						11	12	1	2	3	4	5	6	7	8	9	10	11	12
1	Conduct a Questionnaire to the Public and Awareness	1		Conduct a questionnaire/visit community, church, schools Conduct announcement (post on stores) Magaphone announcement	We&EPA We J														
2	Developed a Collection Plan	1	○	Draft a collection plan Conduct survey Finalize the Collection Plan	We&crews 														
3	Review the Collection Plan	1		Modify the collection plan	We														
4	Implement the collection service	1		Implement scheduled collection service	J&We														
5	Frequency to Hold a Meeting with Manager (Director/ Assistant Director) and collection crews	4		on going	We														
6	Record the Collection Operation (operation time, area, # of bins collected waste, etc.)	1		Develop a form	We														
7	Acquirement of enough # of collection vehicles	1		on going	Aeto&We														
8	Maintenance of the collection vehicles	4		on going Trainning on a new vehicle	crews&mehanic (private co.)														
10	Respond complains from the Public about no collection	5		on going	We&crews														
11	Conduct safety operation training	1		on going	We														
12	Safety gears	2	○	Appeal to Mayer, Aeto, Mario for the safety of crews	We														

Table 11-8: The Action plan of EPA

1. Implement Awareness Program for SWM		Score of Capacity Assessment	Choose High prioritise	Activity to Start	Person in charge	2014		2015											
						11	12	1	2	3	4	5	6	7	8	9	10	11	12
1	% of secure budget for awareness activities of waste management toward your required/proposed budget	1	<input type="radio"/>	Request/ask budget	K														
2	Develop a Plan and Implement awareness program of waste management	3	<input type="radio"/>	Development of the Plan	Wh & K														
				Implement the Plan	Wh														
				TOT (date will be checked)	K&Wh														
3	Develop and prepare necessary materials for waste management (such as, a presentation, poster, booklet..etc.) for Ebeye	5	<input type="radio"/>	Modify the materials	K&Wh														
4	Data recording of the awareness activities	5	<input type="radio"/>	Record the activities	K&Wh&N														
5	Understand current waste management situation and problems enough to explain to the Public	5	<input type="radio"/>	Hold a steering committee	Wh														
				Get information fromy PW	K&Wh														

2. Environmental monitoring		Score of Capacity Assessment	Choose High prioritise activity	Activity to Start	Person in charge	2014		2015											
						11	12	1	2	3	4	5	6	7	8	9	10	11	12
1	Monitor Environmental Impact related to waste	5	<input type="radio"/>	(on going) Environemntal monitoring	All EPA staff														
				Share the report with PW															
2	Enforcement of Littering law	4	<input type="radio"/>	Continue the enforcement	All EPA staff														

Indicator5-1 : Plan for improvement of waste collection is drafted.

As mentioned earlier, it was a difficult task for PW in Ebeye to provide waste collection service on daily basis was since their compacter truck has got maintenance trouble for about 6 months. Therefore, the PW collected the waste with a wheel roader and a dump truck.

It was informed that the PW had already ordered two new compacter trucks (14 cubic yard), 1,200 pieces of the wheel bins (50 gallons) to be installed at households and 10 big containers (8 cubic yard) to be installed at the premises of businesses, schools and churches. In addition, the KALG passed the ordinance (No.2014-01) in August of 2014 to charge monthly collection fee from each household (\$10) and business (\$30). This new idea came up from one C/P of the PW, but not shared enough yet with other agencies. Therefore, a workshop was held to share the new plan and discuss about the plan among the PW, EPA, Finance office and KAJUR.



A wheel loader and a dump truck



Waste collection using the wheel loader



The scene of waste collection



Loading the waste to the truck using the wheel loader

(Photo: 1st of November, 2014)



Discussion about the new collection system


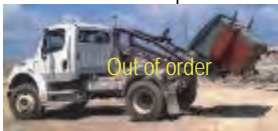






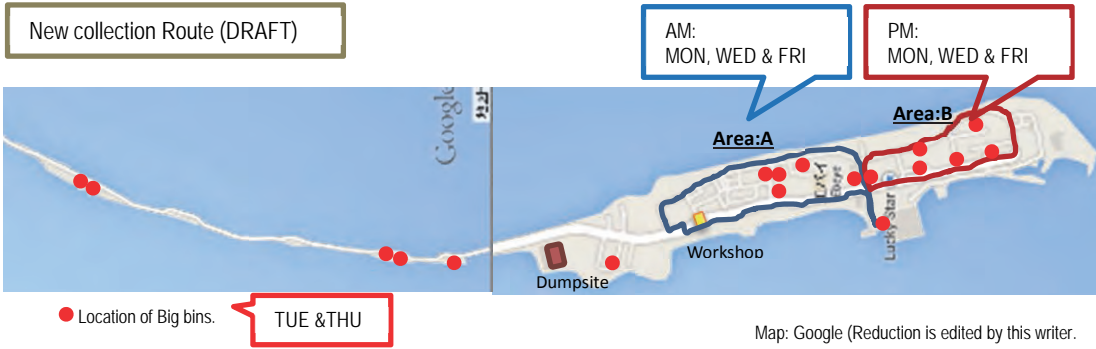
Workshop on the new collection system



As the results of the workshop, an improvement plan of waste collection was drafted.

Table 11-9: The plan of improvement of waste collection

	Current situation/ Issues	New Plan (planned to start from Jan. 2015)
1. Responsibility of Collection and Transportation of the waste	<ul style="list-style-type: none"> Residential waste---by PW Commercial waste---by PW Gov. waste---by PW Schools---by PW Hospital---by MOH 	<ul style="list-style-type: none"> Residential waste---by PW Commercial waste---by PW Gov. waste---by PW Schools---by PW Hospital---by MOH
2. Collection Method and Vehicle	<ul style="list-style-type: none"> <u>Some area is house to house collection and other area is curbside collection.</u> Compacter---under repair  <ul style="list-style-type: none"> Trailer---under repair 	<ul style="list-style-type: none"> <u>House to House collection</u> Compacter & Trailer---Expected to have mechanics in Nov-Dec. to be repaired. New Compacter(1 or 2): Maker---Freight liner Type---Packer/ Leach Capacity---14 cubic yard Year---2015

	Current situation/ Issues	New Plan (planned to start from Jan. 2015)
	<ul style="list-style-type: none"> Wheel loader & dump truck collection 	
3. Storage	<ul style="list-style-type: none"> 540 wheel bins: Capacity---50 gallons installed at households/schools/churches 8 big bins; Capacity---8 cubic yard Installed at community (blocks) No discharge rule has been set.  	<ul style="list-style-type: none"> New 1200 wheel bins will be received in Jan. Total 1740 wheel bins (540+1200)—<u>will be installed at households</u> Remaining will be stocks or sold to person who need to replace. New 10 big bins will be received in Jan. Total 18 big bins (8+10)— <u>will be installed at business/school with churches.</u> Basic discharge rule will be planned.
4. Collection Area	<ul style="list-style-type: none"> Ebeye only 	<ul style="list-style-type: none"> Ebeye+ <u>will be expanded to Loi North and Guegeegue.</u>
5. Collection route	<ul style="list-style-type: none"> Date: Mon-Sat Time: 8AM-5PM Route: not really fixed. Collection in the narrow streets: the wheel bins aren't suitable in narrow streets for collection trucks to go, instead, the big bins are installed for the crowded area. 	<ul style="list-style-type: none"> Wheel bins collection: <u>Area A: Morning on Mon & Wed & Fri</u> <u>Area B: Afternoon on Mon & Wed & Fri</u> Big bins collection: <u>Tue & Thu</u> Time: 8AM-5PM Collection in the narrow streets: the people are required to bring their wheel bins to the corner on the main road.
<p>New collection Route (DRAFT)</p>  <p>● Location of Big bins. TUE & THU</p> <p>AM: MON, WED & FRI</p> <p>PM: MON, WED & FRI</p> <p>Map: Google (Reduction is edited by this writer.)</p>		
7. Maintenance of the collection vehicle	<ul style="list-style-type: none"> Crews check the basic items every morning No Washing after the collection Periodical maintenance---no 	<ul style="list-style-type: none"> Daily Maintenance should be continued. Make sure to clean the vehicle after use every day. Needs to be plan a periodical maintenance.
8. Bulky waste	<ul style="list-style-type: none"> The Mayor ordered \$25 charge (Customer make a call to PW →PW go collect) However, it is not well followed; the public asked the collection crews to collect their bulky waste during the operation, and the crews collect them without charging. 	<ul style="list-style-type: none"> Needs to instruct crews more and inform to the public.

	Current situation/ Issues	New Plan (planned to start from Jan. 2015)
9. Public announcement	<ul style="list-style-type: none"> Never conducted when change the service system 	<p>Before new collection service starts public hearing/announcement will be conducted:</p> <ul style="list-style-type: none"> Post an information at shops----PW Distributing at Churches----PW Mega phone announcement---PW Community, School, Church Workshops----EPA, PW
9. Safety gears	<ul style="list-style-type: none"> Never provided but crews found or prepared by themselves. 	<ul style="list-style-type: none"> Needs Groves, Boots, safety best at least
10. Finance	<p>Fuel: \$4,400.00/month Salary: 700.00/month Supply:500.00/month Total:\$6,200.00/month</p> <div data-bbox="218 618 825 1066" data-label="Diagram"> </div>	<p>Introducing the Collection Fee: Household:\$10.00/month Business:\$30.00/month It is planned to use the collected fee for the collection service and dumpsite maintenance but it needs to be officially approved by the Government. The flow of the collected fee.</p> <div data-bbox="917 689 1361 1088" data-label="Diagram"> </div>

Indicator5-2 : The burning in the open dumping decreased to 0 in Ebeye

Indicator5-3 : The waste is located separately and adequately in dump site

Indicator5-4 : Bulky waste collection is separated from the common household waste.

Open burning of the waste at the dumpsite was not observed since the early November after starting the training.



23th of July



31th of October



The scattered waste inside the dumpsite was organized and compacted



The gate was damaged by the fire. Open burning was stopped.



The construction of the fence was still continue.



Compaction by using the excavator

The scattered waste inside the dumpsite was pushed and compacted in the designed zone with heavy equipment while the waste layer was built during the field works. Operators of the heavy equipment had enough skills to operate the equipment. Therefore, as long as the heavy equipment is available at the dumpsite, the improvement of the dumpsite can be completed. It is expected that the full-scale of the improvement will be able to be conducted after the new waste collection truck arrive in January 2015, because the heavy equipment was used on the waste collection every day.

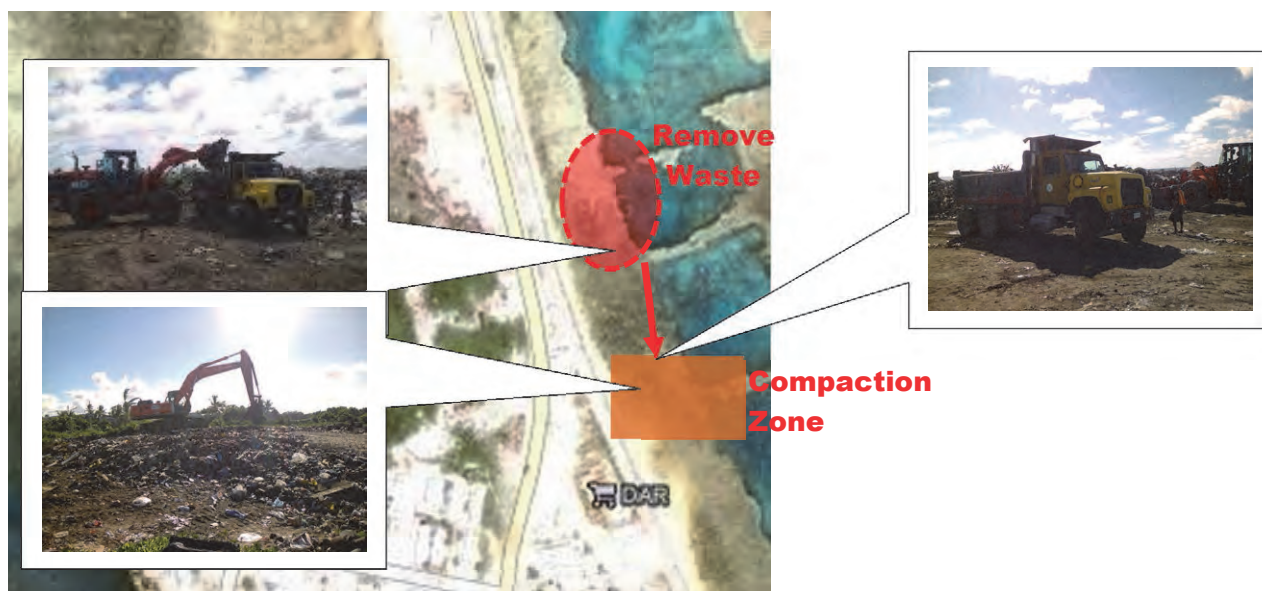


Figure 11-2: Improvement plan at the dump site (Revised in October 2014)



Before improvement(4/Nov)



Scattered waste was loaded to the dump truck by the wheel loader



Transporting the waste by the dump truck and compaction by the excavator



End of the day 1 of field work (4/Nov)



End of the day 2 of field work (5/Nov)



End of the day 3 of field work (6/Nov)



Compaction of the waste by the excavator



Constructing the approach road with coral sand (11/Nov)



Improved approach road



After the approach road was improved, vehicles can go to the new dumping zone.



After improvement (11/Nov)
Some waste was relocated and open burning zone was cleaned up which could stop the open burning.



After improvement (11/Nov)
The waste cell I was made and approach Road were improved.
New coming waste will be dumped at the waste cell

Although there were some small machinery problems on the heavy equipment, the operators and other staff repaired on site immediately. The maintenance on the equipment donated by Japan or other donor countries is necessary to be planned to secure procurement spare parts and capacity development of mechanics to prevent the problems.



Repairing equipment at the dump site



The C/P drafted the Operation Manual of the dumpsite including organizational arrangement, procurement of equipment, gate inspection, operation plan and monitoring/reporting of the operation. This manual will be updated according to the daily operation at the dump site.

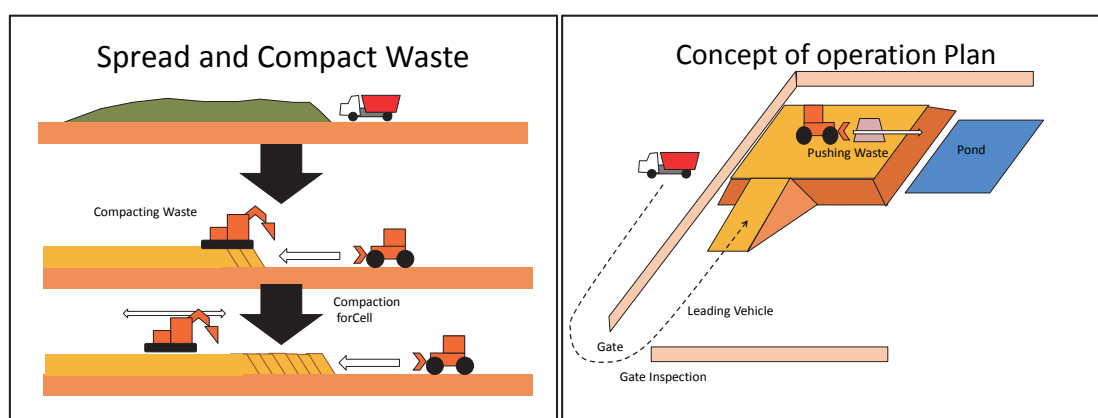


Figure 11-3: 2 slides from the drafted Operation manual

The plan of the medical incinerator was identified. The incinerator “Mediburn” was packaged in a wood box and stored at the hospital yard for few years. The construction work for installing the incinerator was started. The incinerator will be managed by MOH and operation will be contracted out to PW of KALG.



The medical incinerator inside of the box



Construction work for the medical incinerator was started.

c. Activity of the Fourth Dispatch (from 15th of January to 6th of February, 2015)

Indicator5-1 : Plan for improvement of waste collection is drafted.

Although the plan on improvement of waste collection was drafted in the workshop in November, 2014, the new waste collection vehicle was not provided yet. Currently waste collection was provided using a wheel loader and a dump truck. In spite of such bad conditions on the equipment, roadside and town was kept clean with the provision of waste collection service has been provided on schedule.

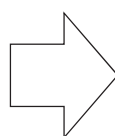
Indicator5-2 : The burning in the open dumping decreased to 0 in Ebeye, Indicator5-3 : The waste is located separately and adequately in dump site

Indicator5-4 : Bulky waste collection is separated from the common household waste.

Improvement of the dumpsite was conducted under the ownership of KALG step by step. Scattering waste and incidental burning of waste in the site was eliminated after the workshop in November, 2015. Segregation of bulky waste was also implemented after the workshop in November, 2015.



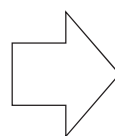
November 11, 2015



January 22, 2015



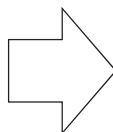
November 11, 2015



January 22, 2015



November 7, 2015



January 22, 2015



Segregation of bulky waste in the site



Burning the waste has been ceased.



A wheel loader and a dump truck collect waste and operates at the dumpsite



Maintenance of the equipment

Indicator5-5 : Education on 4R promotion is conducted for all school classrooms

Indicator 5-6 : Teacher training on 4R promotion is conducted for all teachers in Ebeye.

A C/P and a JOCV of EPA-Mauro visited Ebeye and conducted the school activities and community workshops in January, 2015. They also attended the JCC meeting through TV conference from Ebeye and reported the results of their activities. These efforts provided positive effects on collaborative works between Majuro and Ebeye in accordance with the agreed framework. This result was reported to JICA by C/P.

The JICA Experts supported to create the posters to raise awareness on “Pack – Tied – into Bins” in Ebeye. C/Ps in Ebeye posted them along the street in Ebeye.



Posters on the awareness-raising "Pack – Tied – into Bins"



Posting the posters by counterparts

Indicator 5-7 : Plan for paper fuel is drafted

This activity was postponed by the time the new waste collection and the completion of the rehabilitation of the dumpsite were completed in consideration of their higher priority. This activity is expected to be started in 2015.

d. Activity of the Fifth Dispatch (from 21st to 27th of May, 2015)

Indicator5-1 : Plan for improvement of waste collection is drafted

Both the new waste collection vehicles and waste bins were not provided in Ebeye. The waste collection service was provided by PW continuously with using a wheel loader and a dump truck. With the limited availability of collection vehicles, waste was properly collected and kept clean at street side.

Since KALG was still waiting for provision of the collection vehicles and bins, the public announcement of new collection system was not made yet.



Waste collection method using a wheel loader and a dump truck

Indicator5-2 : The burning in the open dumping decreased to 0 in Ebeye

Indicator5-3 : The waste is located separately and adequately in dump site

Indicator5-4 : Bulky waste collection is separated from the common household waste

Proper operation at the dumpsite was conducted continuously after the workshop in November, 2014.

Incidental burning on the site was eliminated. Segregation of bulky waste was also conducted at the dumpsite.



View of the dumpsite



The dumping zone at the
dumpsite



Segregation of the scrap metal



Incomplete fence

Indicator5-5: Education on 4R promotion is conducted for all school classrooms

Indicator 5-6: Teacher training on 4R promotion is conducted for all teachers in Ebeye.

According to the discussions with EPA-Ebeye, both public awareness-raising activities and school visits were conducted monthly and continuously.

As the result of discussions involving KALG, EPA and MOE, the teacher training on environmental activities was decided to be planned in September of 2015. EPA-Majuro will also support this activity. The teacher training will be scheduled during the dispatch of JICA Expert in September, 2015.

The posters which KALG posted during the activities with the support of Mr. Faafetai, the Assistant Chief Advisor of J-PRISM, were damaged by mischief of the children. It indicated the difficulty of keeping this kind of some awareness materials on the roadside or other public areas. Therefore, EPA-Ebeye considered the alternative way such as posting them inside of house or selecting proper places such as schools, churches or other public spaces. Although the posters were damaged, the contents of poster were useful and effective for awareness-raising activities.



Posting the signs(Feb, 2015)



Damaged posters (May, 2015)

Indicator 5-7 : Plan for paper fuel is drafted

This activities was postponed by the time of initiating the new waste collection system and the completion of the rehabilitation of the dumpsite. This activity is expected to start in 2015.

e. Activity of the Sixth Dispatch (from 4th to 11th of September, 2015)

Indicator5-1 : Plan for improvement of waste collection is drafted

The two new compactor trucks (14 cubic yard), 1,200 pieces of the wheel bins (50 gallons) and 10 big containers (8 cubic yard) ordered by KALG were provided to Ebeye. Furthermore, the KALG passed the ordinance (No.2014-01) in Aug. 2014 to charge monthly collection fee from each household (\$10) and business (\$30).

Lifting units to dump the bins were installed on the waste collection vehicles while distribution of the waste bins to the residents was under preparation.



The new compactor trucks

Indicator5-2 : The burning in the open dumping decreased to 0 in Ebeye

Indicator5-3 : The waste is located separately and adequately in dump site

Indicator5-4 : Bulky waste collection is separated from the common household waste.

Activities related to the indicator 5-2, 5-3 and 5-4 were implemented at the dumpsite. Fundamental management practice introduced in the workshop in November, 2014 was implemented properly and continuously. Burning at the dumpsite was not observed while small volume of the ash after small scale of fire was still observed. It is recommended the KALG to should completely ban burning of the waste at the

site. Compaction of the waste was not perfectly conducted because the fuel was not secured enough under poor budget condition at the end of fiscal year. C/P said that compaction would be restarted with the new fiscal year budget. Segregation of the waste at the dumpsite was conducted continuously.



The view of the site(11th of September)



Approach way at the site



Fence (the remaining section hasn't been completed by local Gov.)



The house for the medical incinerator is under construction

Indicator5-5 : Education on 4R promotion is conducted for all school classrooms

Indicator 5-6 : Teacher training on 4R¹⁰ promotion is conducted for all teachers in Ebeye.

The teacher training on the CSP was conducted in September, 2015. A C/P specialized in environmental education was invited from Fuji as a trainer. Fundamentals of the CSP were lectured and introduced to the school teachers in Ebeye. Then, the participated teachers drafted their Action Plan to be implemented at their schools while the action plans would be monitored by EPA for 6 months. The first monitoring was planned in November, 2015. These activities were supported by the project coordinator of J-PRISM.



The workshop on the CSP (photo provided by C/P)

¹⁰ *4R: Refuse, Reduce, Reuse and Recycle

Indicator 5-7 : Plan for paper fuel is drafted

The draft of the plan on paper fuel was postponed by the time of initiating new waste collection. School activities to produce the paper fuel was started in several schools. As a preparation of the school activity, KALG started collecting cardboards for school activities for producing the paper fuel.

f. Activity of the Seventh Dispatch (from 4th to 16th of November, 2015)

KALG and EPA-Ebeye attended the 5th JCC meeting in Majuro through TV conference system and the result of the activities in Ebeye in 2015 were reported by C/Ps in Ebeye. One good points of the TV conference was to share good practices and issues among stakeholders.

Indicator5-1 : Plan for improvement of waste collection is drafted

The new waste collection service with the new compactor trucks and the new bins was started in October, 2015. The waste collection was conducted in accordance with the plan which was drafted in the workshop in November, 2015.

Before the new system, temporary collection system with a dump truck and a wheel loader was conducted alternatively instead of the compactor truck. The waste collection in Ebeye was improved after the introduction of new compactor trucks.

The waste collection was still under preparation.



The new waste collection in Ebeye



The scene of the waste collection



Operation schedule is posted at the cockpit of collection vehicle

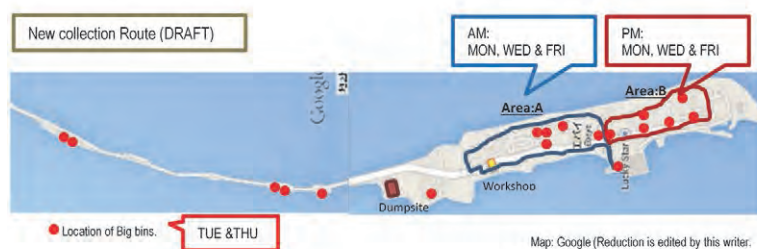


Figure 11-4: The waste collection plan drafted in November, 2015

A Time and Motion Study on waste collection was conducted to assess the new waste collection system. The survey team (KALG and JICA Expert) followed the compactor truck and observed the collection work for a day. The results showed that two round trips operation cover all Ebeye island. Tonnage collected by one crew per hour (based on Working time) is 0.37 – 0.43 t/crew/hour.

Table 11-10: The results of the time and motion study

Ebeye	Collection tonnage	# of crews	Working time	Daily tonnage collected per crew	Tonnage collected by one crew per hour (Based on Working time)	Tonnage collected by one crew per hour (Based on Net collection time)	Working time per tonnage
	t	persons	min	t/crew/trip	t/crew/hour	t/crew/hour	hour/t
1st round trip	6.0	3	325	2.00	0.37	0.38	1.11
2nd round trip	4.0	3	186	1.33	0.43	0.45	1.29

Ebeye	From Base to collection point	Net collection time	Transport to Landfill	Dump at Landfill	Working time	# of collection points	# of the bin
	min	min	min	min	min		
1st round trip	2	316	2	5	325	51	334
2nd round trip	7	179			186	27	225





Figure 11-5: The results of the time and motion study (Map of collection points)

Indicator5-2 : The burning in the open dumping decreased to 0 in Ebeye

Indicator5-3 : The waste is located separately and adequately in dump site

Indicator5-4 : Bulky waste collection is separated from the common household waste

It was observed that fundamental management practice was conducted at the dumpsite. The compaction of waste was not perfectly conducted because an excavator and a wheel-loader were under repair for a week. On the other hand, proper maintenance and repair of the equipment were observed at the workshop in KALG. The wheel-loader operation was resumed on 10th of November during the expert's dispatch. It was observed that the operators and mechanics of the equipment were highly motivated. Burning waste at the dumpsite was not observed.

Segregation waste at the dumpsite was conducted continuously since November, 2014; but no recycling company or recyclables trader is available in Ebeye. Segregated recyclable materials were stored at the site, waiting for the recyclers or buyers to purchase.



The view of the site



Maintenance of the equipment
(Touch-up painting)



Wheel loader

Indicator5-5: Education on 4R promotion is conducted for all school classrooms

Indicator 5-6: Teacher training on 4R promotion is conducted for all teachers in Ebeye.

The results of CSP in Ebeye were monitored in November, 2015. The C/P of EPA-Ebeye monitored the activities on CSP at each participated school in Ebeye. The project coordinator of J-PRISM supported these monitoring. Also a C/P of EPA-Majuro attended the monitoring. There are drastic changes in the schools in waste handling, such as segregation at the classroom, elimination of littering and production of handy crafts with reused paper/cardboards. The monitoring results were reported in the 5th JCC meeting. It was observed that the CSP was successfully introduced in Ebeye. In future, CSP will be continued and expanded to other schools.



Handmade bag
(photo provided by C/P)



Clean up activities
(Photo provided by C/P)



Segregation trash box
(Photo provided by C/P)

Indicator 5-7 : Plan for paper fuel is drafted

The plan for paper fuel was drafted in November, 2015. The final draft will be completed by December, 2015. The emission test of the paper fuel was conducted by SPREP, the test results will be reported in January of 2016. The activity to collect cardboards to produce the paper fuel was temporally suspended in November, and the activity would be resumed after completion of the plan.

11.2.6 Other activities related to SWM

This section reported the activities related to SWM but not included in the PO of the J-PRISM including JCC and Capacity Assessment.

a. Activity of the Fourth Dispatch (from 15th of January to 6th of February, 2014)

The 4th JCC meeting was held on 30th of February. C/Ps in Majuro and Ebeye, the members of the project office base in Samoa, the staffs from JICA headquarter attended through TV conference system. C/Ps reported the activity results and issues were discussed in the meeting.



JCC meeting

KALG and EPA-Ebeye attended the 4th JCC meeting in Majuro through TV conference system and the result of activities in Ebeye in 2014 were reported by C/Ps in Ebeye. One of good point of the TV conference is effective to share good practices and issues among stakeholders. WACS was conducted in Ebeye. JICA Expert and Mr.Faafetai the Assistant Chief Advisor of J-PRISM supported this survey technically. As the result of the survey, the waste generation ratio was 0.12 kg/capita/day and composition of waste is shown in the table below.



The interview survey to residents



Sampling from residents



Scaling the samples



Measuring the density of samples



The segregation survey



The sample waste after categorization

Table 11-11: The summary of the Waste Composition in Ebeye

CATEGORY		PERCENTAGE OF WEIGHT
1	Organic waste	29.1
2	Plastics	21.1
3	Metals	11.7
4	Papers	12.3
5	Glasses	6.1
6	Textiles	5.2
7	Disposal Nappies	11.5
8	Styrofoam	1.6
9	Others	1.2

In future, introduction of recycling program, calculation of daily round trips on collection services, estimation of the capacity of collection vehicles, estimation of waste generation (Daily, Monthly, Annually...) and so on will be considered in accordance with this data by C/Ps in Ebeye.

b. Activity of the Seventh Dispatch (from 4th to 16th of November, 2015)

b.1. Occupational Safety and Healthcare (OSH)

OSH was conducted in Ebeye on 11th of November, 2015. A C/P specialized in OSH was invited to Ebeye as a trainer. In house lecture and field works on waste collection and dumpsite operation were conducted. The Staffs of PW attended the program as trainees and learnt about the OSH. The project coordinator of J-PRISM supported this activity.



Lecture



Fieldwork on waste collection

b.2. JCC

The 5th JCC meeting was held at the conference room of Marshall Islands College on 13th of November, 2015. The summaries of the meeting are as bellow;

The results of the Final Evaluation Survey were explained. Almost all the activities were fully or mostly achieved; however, weak points and recommendations were identified and recognized among C/Ps. Each C/P will address issues in the remaining period.

- ✓ The Project Director, Secretary of MPW, and The Project Manager, General Manager (GM) of MAWC, have responsibility to monitor the progress of the Action Plans.
- ✓ After the termination of J-PRISM, the Action Plans will be implemented continuously by RMI. The steering committee of the PacWaste Project will share information on SWM and monitor the progress of the Action Plans.
- ✓ The plan to achieve the overall goal in next three years were explained. Good practices, such as pre-paid bag, CDL, upgrading the facilities at the dumpsite, paper fuel, the new waste collection fee system in Ebeye, the Clean School Program and OHS activities are planned to be implemented by 2018, the target year. The regional workshop sponsored by RMI will be planned for the target year of 2018.



JCC meeting

b.3. Capacity Assessment

Capacity Assessment was conducted through interviews with C/Ps. Some points of the assessment are;

- ✓ In Majuro, waste collection and dumpsite management were improved under cooperation of JICA volunteers.
- ✓ In Ebeye, New waste collection system was started under cooperation by J-PRISM.
- ✓ In Ebeye, proper management was introduced in the existing dumpsite.
- ✓ Clean School Program was introduced in Ebeye.
- ✓ Workshops on the Occupational Safety & Healthcare were conducted in RMI.

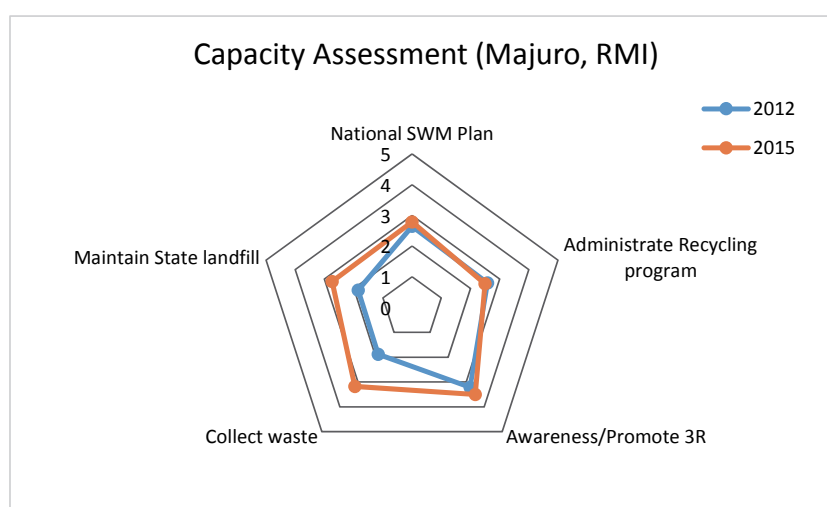


Figure 11-6: Chart of the capacity assessment in Majuro

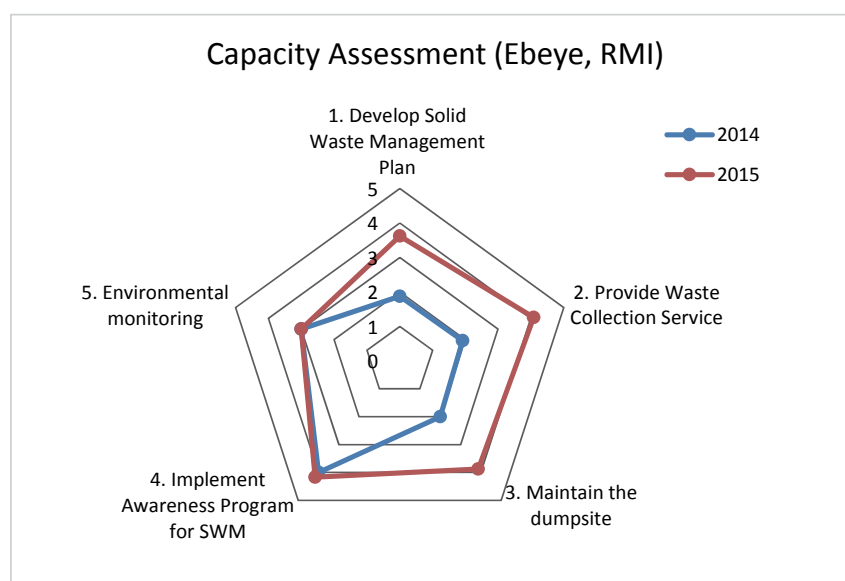


Figure 11-7: Chart of the capacity assessment in Ebeye

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1 Schedule of the Activities (Plan of Operation)

The Plan of Operations (POs) of each country and State are shown below, which were finalized and confirmed as the final PO in the final JCC held from November through December 2015.

1.1 OEEM of FSM

ANNEX II : PO - FSM (OEEM)									
Term: 2011 ~ 2015 (5years)									
Ver.4 (Date: Dec, 16, 2015)									
Outputs and Associated Activities	Indicators for Outputs	Dept. & Agencies in Charge	Technical Assistance	Plan & Actual					
JCC/SC/ Eva	JCC/SC/ Steering Committee Evaluation Studies				2011	2012	2013	2014	2015
Output 1-1: The NSWMS in FSM is finalized.									
1-1	Finalize the NSWMS for FSM.	OEEM	SPREP	Plan Actual					
1-2	Conduct the dissemination workshop for other states to explain the SSWMS of Kosrae state.	OEEM	SPREP/ JICA	Plan Actual					
1-3	Facilitate three other states to finalize SSWMS.	OEEM		Plan Actual					
1-4	Monitor the progress of Action Plan of 4state	OEEM		Plan Actual					
1-5	Modify the NSWMS based on the result of activities in each state.	OEEM		Plan Actual					
Output 1-2: Information sharing of SWM is enhanced among states.									
2-1	Set up an opportunity to share progress and issues of SWM such as in an Environmental conference.	OEEM		Plan Actual					
2-2	Prepare the document for sharing information of SWM in FSM State	OEEM		Plan Actual					
2-3	Develop guideline for leachate monitoring	OEEM, Dep. Of Health & Social Affairs		Plan Actual					

1.2 Kosrae State of FSM

Annex III: Modified PO in Kosrae ver.6 (17-DEC-2015)										:Done		:Scheduled but not yet		:Scheduled		17-12-15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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1.3 Pohnpei State of FSM

Annex III: Modified PO in Pohnpei Ver.5 (17-Dec-2015)																													
Outputs and Associated Activities			Dept. & Agencies in Charge	Technical Assistance	Plan/Actual	2011			2012			2013			2014			2015											
JCC	◇	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
3-1a The NSWMS and SSWMS in FSM are finalized																													
3-1-1		Finalize the SSWMS of Pohnpei.	EPA	Plan																									
				Actual																									
3-1-2		Modify the NSWMS and SSWMS based on the result of activities in Pohnpei state.	EPA	Plan																									
				Actual																									
3-1b Action Plan in Pohnpei is developed.																													
3-1-4		Prepare the action plan of SSWMS for Pohnpei.	EPA	Plan																									
				Actual																									
3-1-5		Monitor, Review and Modify action plan.	EPA	Plan																									
				Actual																									
3-2 Collection of General Waste is improved.																													
3-2-1		Conduct the baseline study to grasp the current collection system for general waste.	EPA	Plan																									
				Actual																									
3-2-2		Develop an improvement plan of collection for general waste.	EPA	Plan																									
				Actual																									
3-2-2a		Develop plan for new waste collection system by cooperation among Sokehs and Kitti municipal government.	Sokehs, Kitti, EPA	Plan																									
				Actual																									
3-3 Final Waste Disposal site is improved.																													
3-3-1		Review the existing plan for new landfill.	EPA, T&I Task force	Plan																									
				Actual																									
3-3-2		Raising capability on management of dumpsite/landfill	EPA, T&I Task force	Plan																									
				Actual																									
3-3-2a		Improvement on management, operation and leachate treatment at existing landfill site. (Documents to be prepared: Report of improvement work and operation manual)	T&I, EPA, PWMS	Plan																									
				Actual																									
3-4 CDL system is improved.																													
		3-4-1 The Recycle Center is operating at least once a month.																											
		3-4-2 The Recycling Law is amended.		Plan																									
3-4-1		Monitoring on modification and improvement of the CDL system operation.	EPA																										
				Actual																									

1.4 Chuuk State of FSM

ANNEX III-2 : PO - FSM (Chuuk)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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4-1-1 4-1-2 4-1-3 4-1-4 4-1-5	Hold in-country trainings for general SWM and workshop for making detail plan of operation in Chuuk State	4-1-1 ChuukSSWMS is submitted to the State for approval	EPA/ PW	Jack Sham	JICA /SPREP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

1.5 Yap State of FSM

ANNEX II : PO - FSM (Yap)				Monitored in Dec 17, 2015											
Term: 2011 ~ 2015 (5years)				Ver 4											
Outputs and Associated Activities	Indicators for Outputs	Dept. & Agencies in Charge	Person in Charge	Plan											
				Actual											
JCC UCDSC Steering Committee Eva Evaluation Studies	☆ ★			1	2	3	4	5	6	7	8	9	10	11	12
Output 5-1: Capacity to prepare the State Solid Waste Management Strategy of Yap State and Action Plan is developed.															
5-1-1 Hold in-country trainings for general SWM and workshop for making detail plan of operation in Yap state.	5-1-1 Yap SSWMS is submitted to the State for approval	EPA/PW&T	Christina												
5-1-2 Conduct the survey to collect the data and information of current SWM situation in Yap state.	5-1-2 Action Plan is distributed to the stakeholders	EPA/PW&T	Christina/ Manuel												
5-1-3 Prepare the SSWMS and Action plan.	5-1-3 Monitoring on the progress of Action Plan is conducted annually	EPA Yap/ OEENI	Christina												
5-1-4 Finalize the SSWMS of Yap state.		EPA/PW&T	Christina												
5-1-5 Monitor the progress of the Action Plan		EPA/PW&T	Christina/ Manuel												
5-1-6 Modify the SSWMS and its Action Plan based on the result of activities if necessary.		EPA/PW&T	Christina												
5-2: Capacity to improve and manage the final disposal site is enhanced.															
5-2-1 Review the current plan of construction of landfill by applying Fukuoka method.	5-2-1 New landfill design is developed.	PW&T/EPA Yap	Vincent/ Christina												
5-2-2 Collect data of incoming waste at dumpsite	5-2-2 More than 10 counterparts get certificate in the training of operation and maintenance of landfill	PW&T/EPA Yap	Jesse												
5-2-3 Finalize the revised plan of construction of landfill		PW&T/EPA Yap	Vincent/ Christina												
5-2-4 Train C/POs on operation and maintenance of landfill by applying Fukuoka method.	5-2-3 The upgrade of the existing dumpsite to semi-aerobic is completed.	PW&T/EPA Yap	Vincent												
5-2-5 Operate and maintain the new landfill.		PW&T	Jesse												
5-2-6 Plan to rehabilitate the existing dumpsite	5-2-4 Operation of new landfill is monitored by EPA monthly according to the new landfill management plan	PW&T	Jesse												
5-2-7 Rehabilitate an existing dumpsite		PW&T	Jesse												
5-3: Capacity to conduct awareness activities for SWM is raised.															
5-3-1 Prepare awareness program/materials (1)	5-3-1 More than 10 workshops are conducted at schools and communities using the awareness materials developed	EPA Yap	Christina												
5-3-2 Conduct schools/ community visits		EPA Yap	Christina												
5-3-3 Evaluate the program (1)	5-3-2 Awareness of SWM through a questionnaire result is raised by 25%	EPA Yap	Christina												
5-3-4 Prepare awareness program/materials (2)		EPA Yap	Christina												
5-3-5 Conduct awareness program (2)		EPA Yap	Christina												
5-3-6 Evaluate the program (2)		EPA Yap	Christina												

1.6 Palau

ANNEX II : PO - Palau											
Term: 2011 ~ 2015 (5 years)											
Monitored in December 2015											
Ver. 5											
Outputs and Associated Activities											
JCC ◇											
JCC/S Steering Committee ☆											
Evaluation Studies ★											
OUTPUT 1: Capacity to manage the beverage container deposit fee program (sustainable financing system) is enhanced.											
Person in-charge											
Plan											
Actual											
1-1: Implement the beverage container deposit fee program											
1-2: Conduct regular meeting and revise the program if necessary.											
OUTPUT 2: National Solid Waste Management Plan is finalized and Action Plan is revised.											
2-1: Facilitate the approval of the NSWMP (and obtain the approval)											
2-2: Revise the Action Plan of NSWMP if necessary											
OUTPUT 3: Capacity to conduct Awareness raising on 3R (targeting MPIC and Eathday) is enhanced.											
3-1: Prepare the action plan of awareness raising / environmental education on 3R and finalize it											
3-2: Implement the Action Plan.											
3-3: Develop and revise the tools/materials on 3R reflecting the lessons learned.											
OUTPUT 4: Capacity to manage the final landfill site is enhanced.											
4-1: Develop the plan of new dike for M-dock landfill											
4-2: Construct the new dike for M-dock landfill											
4-3: Conduct a survey to estimate the remaining capacity of M-Dock landfill											
4-4: Prepare a plan for safe closure of M-dock landfill											
4-5: Select the site of a new national landfill											
4-6: Prepare EIA for the new national landfill.											
4-7: Develop a conceptual plan of the waste disposal.											
OUTPUT 5: Training program on 3R / SWM is developed.											
5-1: Develop the training program on 3R / recycling program to be used at the regional training/workshop											
5-2: Conduct the training for Micronesia area training /workshop (This includes in-country training conducted in other countries)											
5-3: Evaluate the training / revise the training program with feedbacks											

1.7 Marshall Islands

Annex III: Modified PO in Marshall Islands Ver.4 (13-Nov, 2015)													
Outputs and Associated Activities <(Modification)>	Indicators for Outputs	Dept. & Agencies in Charge (Role-sharing is detailed in Annex IV)	Technical Assistance	Schedule									
				2011		2012		2013		2014		2015	
Output 1: NSWMS is implemented.													
1-1 Develop the action plan of NSWMS.	1-1 NSWMS and Action plan of Majuro is finalized.	OEPFC	JICA/SREEP										
1-2 Conduct the dissemination workshop on NSWMS/Action plan for key stakeholders.	1-2 Implementation of Action plan is monitored and reviewed by the Monitoring Committee 3 times a year.	OEPFC	JICA										
1-3 Progress report is issued annually.	1-3 Progress report is issued annually.	OEPFC	JICA										
1-4 Monitoring, Check and Review on NSWMS/Action plan													
1-4-1 Raising capability on waste collection system.		MAWIC											
1-4-2 Training of waste collectors.		OEPFC											
1-5 Modify the NSWMS based on the result of activities. > Detail is shown as below.		OEPFC											
1-5-1 Review and monitor progress of NSWMS/AP by the Monitoring Committee.		OEPFC											
1-5-2 Review and Modify the NSWMS in accordance with activities of the Monitoring Committee.		OEPFC	JICA										
1-7 PROGRESS REPORT		OEPFC	JICA										
Output 2: Recycling system is improved in Majuro.													
2-1 Review the existing survey for waste volume, waste composition.	2-1 Recycle products & increased year by year.	MAWIC	JICA										
2-2 Identify the marketable recyclables	2-2 60% of collected and exported materials are increasing year by year.	MAWIC/EPA											
2-3 Develop the conceptual plan of recycling system		OEPFC, (MAWIC)	JICA										
2-5 Conduct the awareness raising activities for Majuro.		EPA (MAWIC, MICS)											
2-8 Review and monitor progress on output by the monitoring committee		OEPFC, (MAWIC)	JICA										
Output 3: Composting system is improved in Majuro.													
3-1 Conduct the survey for quality improvement of compost from green waste.	3-1 Volume of compost production are increased in Majuro	MAWIC	JICA										
3-5 Review and monitor progress on output by the monitoring committee		OEPFC	JICA										
Output 4: School-based recycle system is introduced in Majuro.													
4-1 Develop the implementation plan for awareness raising and environmental education	4-1 Manual/material of awareness raising is developed.	MOE (EPA, MAWIC, OEPFC)											
4-2 Conduct training of school-based recycle system including awareness/ environmental education to the organizations concerned.	4-2 Campaign activities are conducted on regular schedule.	MOE (EPA, MAWIC, OEPFC)											
4-3 Select the target schools (public elementary schools).	4-3 100% of schools are implemented in over 100 of elementary schools in Majuro.	MOE (EPA, MAWIC, OEPFC)	JICA										
4-4 Conduct training on awareness and environmental education for school teachers.		MOE (EPA, MAWIC, OEPFC)											
4-5 Implement the school-based recycle system		MOE (EPA, MAWIC, OEPFC)											
4-6 Conduct the campaign activities.		MOE (EPA, MAWIC, OEPFC)											
4-13 Review and monitor progress on output by the monitoring committee		OEPFC	JICA										
Output 5: Solid waste management system is improved in Ebeye.													
5-1 Conduct the survey for waste volume and waste composition.	5-1 Plan for improvement of waste collection is drafted.	Chief person: KAL Gov (Ade)											
5-2 Develop the action plan of SVMS/Action Plan for Ebeye.	5-2 The burning in the open dumping decreased to 0 in Ebeye.	KAL Gov	JICA										
5-3 Select the priority activities.	5-3 The waste is located separately and adequately in dump site.	KAL Gov	JICA										
5-3-1 Develop teaching materials such as booklet, powerpoint and other materials	5-4 Bakiy waste collection is separated from the common household waste.	KAL Gov	JICA										
5-3-2 Develop plan and implementation on school education and teacher training for 4R promotion	5-5 Education on 4R promotion is conducted for all school classroom.	KAL Gov	JICA										
5-3-3 Implementation of Waste composition survey	5-6 Teacher training on 4R promotion is conducted for all teachers in Ebeye.	KAL Gov/EPA/MOE	JICA										
5-3-4 Draft improvement plan on collection-free system and other waste collection program	5-7 Plan for paper fuel is drafted	KAL Gov	JICA										
5-3-5 Improvement of dump site.		KAL Gov	JICA										
5-3-6 Launching producing "Paper Fuel"		KAL Gov	JICA										

2 Records of modifications of PDM

Historical modifications of PDM are shown below. The original PDM (Version 0) and the last revised PDM are attached below. PDM of FSM consists of PDM of OEEM and four States.

2.1 FSM

a. Beginning of the Project

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

Target Group : C/Ps of OEEM, KIRMA & DT&I (Kosrae), EPA & T&I (Pohnpei), EPA &PW (Chuuk), EPA &PW&I(Yap)

Final Beneficiaries: Citizens of f

Project period: 5 years

Implementing Agency: OEEM, KIRMA & DT&I (Kosrae), EPA & T&I (Pohnpei), EPA &PW (Chuuk), EPA &PW&I (Yap)

Target Area: FSM

Implementing Agency: OEEM, National DPAs (Kosrae), EPA and Pohnpei, EPA and Chuuk, EPA and Yap (Fap)				Target Area: FSM					
Narrative Summary				Objectively Verifiable Indicators		Means of Verifications		Important Assumptions	
Overall Goal									
Sustainable management of solid waste in the Pacific Region is enhanced.						To be advised			
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. # of experts (Trainers) in the field of collection of recyclables listed in the SPREP inventory 2 Collection rate of general waste and recyclables is increased.		SPREP (inventory of skilled people) OEEM/ State Government OEEM/ State Government		1. Natural disaster would not drastically affect the collaboration among PICs and SPREP. 2. Political changes of PICs would not drastically affect the collaboration among PICs and SPREP	
#	Priorities under RS2010	State	Outputs / Sub-outputs						
1	Sustainable Financing								
2-1	3Rs/4Rs	Kosrae	2-2 Improvement of Collection of General Wastes and Recyclables						
2-2	Waste Disposal	Kosrae Pohnpei Chuuk Yap	2-3 Improvement of Waste Disposal 3-3 Improvement of Waste Disposal 4-2 Improvement of Waste Disposal 5-2 Improvement of Waste Disposal						
2-3	Waste Collection	Pohnpei	3-2 Improvement of Collection of General Waste						
3	Legislation								
4	Awareness/Communication /Education	Kosrae Yap	2-4 Strengthening of Awareness Raising 5-3 Strengthening of Awareness Raising						
5	Capacity Building								
6	Environmental Monitoring								
7	Policy, Planning, Performance	All Kosrae Pohnpei Chuuk Yap	1. The NSWM and SSWMS in FSM are finalized. 2-1 Development of the action plan of SSWMS for Kosrae 3-1 Development of the action plan of SSWMS for Pohnpei 4-1 Development of the action plan of SSWMS for Chuuk 5-1 Development of the action plan of SSWMS for						
8	Solid Waste Industry								
*	Monitoring system of RS2010								
Activities				Inputs					
Please see PO for details.				Japanese Side		FSM side			
				Dispatch of JICA experts		Assignment of National PD/PM, State PM and CPs		1. Counterpart personnel keep working in the field of SWM.	
				Provision of Regional, sub-regional and in-country workshops / training Local cost support		Local Costs Sharing Provision of necessary land/facility, Work space		2. Necessary budget to carry out activities is allocated from the government.	
								Pre-condition	
								Cooperation of community people of the target area is obtained.	

Narrative Summary			Objectively Verifiable Indicators	Means of Verifications	Important Assumptions
Overall Goal					
Sustainable management of solid waste in the Pacific Region is enhanced.			1. Good practices developed from one state of FSM are implemented in other states and/or other island countries tackling with common issues 1. At least more than 2 trainings/workshops in the region which is conducted by facilitators/trainers from FSM	1. Report of facilitators on activities 2. Records of training/workshop organized by counterparts	
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. Four (4) experts in the field of integrated solid waste management are listed in the SPREP inventory. 2. Improvement of State landfill in each state. 3. Good practice developed from one state is shared with all the states of FSM.	SPREP (inventory of skilled people) OEEM/ State Government OEEM/ State Government Document from OEEM	1. Natural disaster would not drastically affect the collaboration among PICs and SPREP. 2. Political changes of PICs would not drastically affect the collaboration among PICs and SPREP
#	State	Outputs / Sub-outputs			
1-1	OEEM	The NSWMS in FSM is finalized.	1-1-1 NSWMS is developed. 1-1-2 Monitoring of the Action Plan is conducted once a year	NSWMS Monitoring sheet	
1-2		Information sharing of SWM is enhanced among states.	1-2-1 Set up an meeting for SWM at least once year. 1-2-2 Document is distributed to 4 states.	Record/ Report of meeting Document from OEEM	
2-1a	Kosrae	The SSWMS in Kosrae is finalized	2-1-1 SSWMS in Kosrae is submitted to the State for approval. 2-1-2 The progress is evaluated according to the policy of SSWMS 2-1-3 Monitoring is conducted 3 times per year by Monitoring committee. 2-1-4 Progress report is prepared by Monitoring committee annually.	SSWMS, its Monitoring sheet and progress report	
2-1b		Action plan is developed.		Action plan, their Monitoring sheet and progress report	
2-2		Collection of General Waste is improved.	2-2 Improvement plan on Waste collection system in each municipality is drafted.	Improvement Plan for waste collection and its monitoring sheet	
2-3		Waste Disposal is improved.	2-3 Operation and maintenance of landfill is regularly conducted.	Monitoring record, operation record, log book using at landfill site	
2-4		Awareness Raising is improved	2-4 Educational material for 4R is developed and education for 4Rs is conducted in schools. (2013-: For a pilot school, 2015-: Expand for other less than 3 schools)	Booklet, materials, Report of education activities	
3-1a	Pohnpei	The SSWMS in Pohnpei is finalized	3-1-1 SSWMS in Pohnpei is submitted to the State for approval. 3-1-2 Monitoring is conducted 3 times per year by Monitoring committee. 3-1-3 Progress report is prepared by Monitoring committee annually.	SSWMS, its Monitoring sheet and progress report	
3-1b		Action plan is developed.		Action plan, their Monitoring sheet and progress report	
3-2		Collection of General Waste is improved.	3-2 Plan for improvement of waste collection including fee system, collection method and cooperation with multi municipalities, is developed in Sokehs and Kiti, pilot project municipality.	Plan for waste collection in Sokehs and Kiti municipalities. * Sokehs and Kiti are pilot project municipality on waste collection	
3-3		Final Waste Disposal site is improved.	3-3 Operation under Fukuoka method is introduced for existing dumpsite.	Plan for improvement of existing dumpsite drafted by EPA, T&I, PWMMS Counterparts report on dumpsite Log book on operation of dumpsite	
3-4		CDL system is improved. *CDL: Container Deposit Legislation	3-4-1 The Recycle Center is operating at least once a month. 3-4-2 The Recycling Law is amended. 3-4-3 Financial system on CDL is improved.	Plan for improvement on CDL system Amended "Recycling Law"	
4-1	Chuuk	Capacity to prepare the State Solid Waste Management Strategy of Chuuk and Action plan is developed.	4-1-1 Chuuk SSWMS is submitted to the State for approval 4-1-2 Monitoring on the progress of Action Plan is conducted annually	SSWMS, Action plan Monitoring sheet	
4-2		Capacity to improve and manage the final disposal site is enhanced	4-2-1 Boundary of the existing dumpsite is identified and separated from other area. 4-2-2 Operation of compacting waste is conducted at least once a week. 4-2-3 Operation is recorded and submitted to PW and EPA.	Installed dyke or fence to show the boundary Operation record	
4-3		Capacity to improve the collection of general waste is enhanced.	4-3-1 Monthly collection record is submitted to PW and EPA. 4-3-2 More than 5 villages receive regular collection service. 4-3-3 More than 10 workshops are conducted to improve the waste discharge of the people.	Collection Record # of village receive collection service	
5-1	Yap	Capacity to prepare the State Solid Waste Management Strategy of Yap State and Action Plan is developed.	5-1-1 Yap SSWMS is submitted to the State for approval 5-1-2 Action Plan is distributed to the stakeholders 5-1-3 Monitoring on the progress of Action Plan is conducted annually	SSWMS, Action plan Monitoring sheet	
5-2		Capacity to improve and manage the final disposal site is enhanced.	5-2-1 New landfill design is developed. 5-2-2 More than 10 counterparts get certificate in the training of operation and maintenance of landfill 5-2-3 The upgrade of the existing dumpsite to semi-aerobic is completed. 5-2-4 Operation of new landfill is monitored by EPA monthly according to the new landfill management plan	Design of new landfill Completion of construction of a new landfill Rehabilitation of the existing landfill Operation record	
5-3		Capacity to conduct awareness activities for SWM is raised.	5-3-1 More than 10 workshops are conducted at schools and communities using the awareness materials developed 5-3-2 Awareness of SWM through a questionnaire result is raised by 25%	Evaluation survey	
Activities			Inputs		
Please see PO for details.			Japanese Side Dispatch of JICA experts Provision of Regional, sub-regional and in-country workshops / training Local cost support	FSM side Assignment of National PD/PM, State PM and CPs Local Costs Sharing Provision of necessary land/facility, Work space	1. Counterpart personnel keep working in the field of SWM. 2. Necessary budget to carry out activities is allocated from the government.
			Pre-condition		
			Cooperation of community people of the target area is obtained.		

c. Historical modifications

c.1.OEEM

Version No.	The endorsed date	Details of Modifications
Original (0)	Jan.2012	Beginning of the Project
1	March. 2014	<p>The activities 1-1 “The NSWMS and SSWMS in FSM are finalized” was modified to “The NSWMS in FSM is finalized.” The roles of the National and State governments were separated and clearly identified.</p> <p>Add new activities “1-2 Information sharing of SWM is enhanced among states.”</p> <p>Add indicators;1-1-2 Monitoring of the Action Plan is conducted once a year”</p> <p>1-2-1 Set up a meeting for SWM at least once year.</p> <p>1-2-2 Document is distributed to 4 states.</p> <p>1-2-3 Guidelines are developed and distributed to States</p>

c.2.Kosrae State

Version No.	The endorsed date	Details of Modifications
Original (0)	Jan.2012	Beginning of the Project
1	Feb. 2014	<p>Modified the activities:</p> <p>2-1a The SSWMS in Kosrae is finalized</p> <p>2-1b Action plan is developed.</p> <p>2-2 Collection of General Waste is improved.</p> <p>2-3 Waste Disposal is improved.</p> <p>2-4 Awareness Raising is improved</p> <p>Add new indicators: (Type E)</p> <p>2-1-1 SSWMS in Kosrae is submitted to the State for approval.</p> <p>2-1-2 The progress is evaluated according to the policy of SSWMS</p> <p>2-1-3 Monitoring is conducted 3 times per year by Monitoring committee.</p> <p>2-1-4 Progress report is prepared by Monitoring committee annually.</p> <p>2-2 Improvement plan on Waste collection system in each municipality is drafted.</p> <p>2-3 Operation and maintenance of landfill is regularly conducted.</p> <p>2-4 Educational material for 4R is developed and education for 4Rs is started in schools.</p> <p>(2013-: For a pilot school, 2015-: Expand for other less than 3 schools)</p>

c.3.Pohnpei State

Version No.	The endorsed date	Details of Modifications
Original (0)	Jan.2012	Beginning of the Project
1	Feb. 2014	<p>Modified the activities:</p> <p>3-1a The SSWMS in Pohnpei is finalized</p> <p>3-1b Action plan is developed.</p> <p>3-2 Collection of General Waste is improved.</p> <p>3-3 Final Waste Disposal site is improved.</p> <p>3-4 CDL system is improved.</p> <p>Add new indicators:</p> <p>3-1-1 SSWMS in Pohnpei is submitted to the State for approval.</p> <p>3-1-2 Monitoring is conducted 3 times per year by Monitoring committee.</p> <p>3-1-3 Progress report is prepared by Monitoring committee annually.</p> <p>3-2 Plan for improvement of waste collection including fee system, collection method and cooperation with multi municipality, is developed in Sokehs and Kitti -pilot project municipality.</p> <p>3-3 Operation under Fukuoka method is introduced for existing dumpsite.</p> <p>3-4-1 CDL system is operated without unintentional stop.</p> <p>3-4-2 The Recycling Law is amended.</p> <p>3-4-3 Financial system on CDL is improved.</p>
2	Feb. 2015	Modify the indicator 3-4-1 to “The Recycle Center is operating at least once a month.”

c.4. Chuuk State

Version No.	The endorsed date	Details of Modifications
Original (0)	Jan.2012	Beginning of the Project
1	Jan. 2012	The PO and PDM of FSM was combined into one sheet which wasn't useful to use for each State, then is was separated in to 4 States plus OEEM.
2	Feb. 2013	Added Activity 4-1-3 "Monitor the progress of the Action Plan," 4-3-1 "Conduct a Pilot Project of waste collection," "4-3-2 Conduct Time and Motion Study to find issues of collection system," "4-3-3 Develop a collection plan based on the study conducted" and 4-3-4 "Revise /develop a collection route and frequency when collection area is expanded". Added indicator 4-1-1 "Action Plan is developed" Added indicator 4-1-2 "Regular monitoring is conducted on the progress of Action Plan". Added indicator 4-2-1 "Current dumpsite is improved" Added indicator 4-2-2 "Operation and maintenance of landfill is regularly conducted" Added indicator 4-3-1 "Monthly reports of collection is submitted". Added indicator 4-3-2 "Monthly maintenance record is submitted" Added indicator 4-3-3 "% of population in Weno who receive collection service is increased".
3	Feb. 2014	Modified Output 4-1 "The NSWMS and SSWMS in FSM are finalized" to "Capacity to prepare the State Solid Waste Management Strategy of Chuuk and Action plan is developed". Modified Output to 4-2 "Capacity to improve and manage the final disposal site is enhanced" Modified Output 4-3 "Capacity to improve the collection of general waste is enhanced" Deleted Activity 5-1-5 "Implement the Action Plan." Modified Activity 5-1-5 to "Monitor the progress of the Action Plan and Modify the SSWMS or Action Plan if necessary" Added Activity 5-2-5 "Develop a conceptional plan of a new landfill" Modified Indicator 4-1 from "SSWMS is developed" to "Chuuk SSWMS is submitted to the State for approval" Modified Indicator 4-2 from "Action Plan is developed" to "Monitoring on the progress of Action Plan is conducted annually" Modified Indicator 4-2-1 "Current dumpsite is improved" to "Boundary of the existing dumpsite is identified and separated from other area" Modified indicator 4-2-2 "Operation and maintenance of landfill is regularly conducted" to "Operation of compacting waste is conducted at least once a week" Added Indicator 4-2-3 "Operation is recorded and submitted to PW and EPA" Modified Indicator 4-3-1 "Monthly reports of collection is submitted" to "Monthly collection record is submitted to PW and EPA" Modified Indicator 4-3-2 "% of population in Weno who receive collection service is increased" to "More than 5 villages receive regular collection service."
4	Feb. 2015	Deleted Activity 4-1-6D "raft the next SSWMS for the year 2016-2020" Added Indicator 4-3-3 "More than 10 workshops are conducted to improve the waste discharge of the people"

c.5. Yap State

Version No.	The endorsed date	Details of Modifications
Original (0)	Jan.2012	Beginning of the Project
1	Jan. 2012	The Po and PDM of FSM was combined into one sheet which wasn't useful to use for each State, then is was separated in to 4 States plus OEEM. Added indicators 5-2 "Maintenance of landfill is regularly conducted" and "5-3: Awareness Plan is Developed".
2		Added Indicator "Monitor the progress of the Action Plan"
3	Feb. 2014	Modified Output 5-1 "The NSWMS and SSWMS in FSM are finalized" to "Capacity to prepare the State Solid Waste Management Strategy of Yap State and Action Plan is developed"

		<p>Modified Output 5-2 "Waste Disposal" to "Capacity to improve and manage the final disposal site is enhanced"</p> <p>Modified Output 5-3 "Awareness Raising" to "Capacity to conduct awareness activities for SWM is raised"</p> <p>Modified activity 5-1-1 "NSWMS and SSWMS for all four states are developed" to "Yap SSWMS is submitted to the State for approval"</p> <p>Modified activity 5-1-2 "Action Plan is developed" to "Action Plan is distributed to the stakeholders"</p> <p>Modified activity 5-1-3 "Regular monitoring is conducted on the progress of Action Plan" to "Monitoring on the progress of Action Plan is conducted annually"</p>
4	Feb. 2015	Deleted Activity 5-1-7 "Draft the next SSWMS for the year 2016-2020"

a.1.Beggining of the Project

a.2.End of the Project

ANNEX - 13

a.3. Historical Modifications

Version No.	The endorsed date	Details of Modifications
0		Beginning of the Project
1	Feb. 2012	Output 2 "Awareness raising on 3R is enhanced" was divided into two Outputs since this Outputs included two different components; awareness activities and finalization of National Solid Waste Management Plan. Output 2 "National Solid Waste Management Plan(NSWMP) is approved by the Government of Palau and revise the Action Plan for 2012-2016" and "Output 3 "Awareness raising on 3R (including beverage Container Deposit Fee Program) is enhanced" Along with the above modification, added Indicator 2-1 "NSWMP is approved by the Government of Palau and Action Plan is revised"
2	Feb. 2013	Added Indicator 1-2 "% of shipped off containers amount out of redeemed amount"
3	Jan. 2013	Modified Outputs; Output 1 "Beverage container deposit fee program (sustainable financing system) is enhanced" to "Capacity to manage the beverage container deposit fee program (sustainable financing system) is enhanced" Output 2 "National Solid Waste Management Plan(NSWMP) is approved by the Government of Palau and revise the Action Plan for 2012-2016" to "National Solid Waste Management Plan is finalized and Action Plan is revised" Output 3 "Awareness raising on 3R (including beverage Container Deposit Fee Program) is enhanced" to "Capacity to conduct Awareness raising on 3R (including beverage Container Deposit Fee Program) (targeting MPIIC and Earth day) is enhanced" Output 4 "Final landfill site is improved" to "Capacity to manage the final landfill site is enhanced" Output 5 "Training program on 3R / recycling program is developed" to "Training program on 3R / SWM recycling program is developed" Modified Indicators; 1-2 "% of shipped off containers amount out of redeemed amount" to "The financial balance between income and expenditure of BCDFP is well maintained" 2-1 "NSWMP is approved by the Government of Palau and Action Plan is revised" to "NSWMP is finalized. Added 4-1 "A period of operation for M-Dock is extended for 3 years" 4-2 "The closure plan for M-dock landfill is officially submitted to EQPB for approval" to "The existing closure plan for M-dock landfill is revised" Deleted 4-2 "EIA for the new landfill site is conducted" 4-3 "Selection of site for new landfill is approved by landowner" to "Conceptional Plan of the waste disposal is developed" B. Modified activities: 2-2 "Revise the Action Plan of NSWMP" to "Revise the Action Plan of NSWMP if necessary" 3-1 "Prepare the action plan of awareness raising / environmental education on 3R for all states" to "Prepare the action plan of awareness raising / environmental education on 3R and finalize it" Added 4-3 "Conduct a survey to estimate the remaining capacity of M-Dock landfill" Modified 4-4 "Select the site and conduct the survey of a new national landfill" and 4-5 "Conduct the EIA for the new national landfill site" to 4-5 "Select the site of a new national landfill", 4-6 "Prepare EIA for the new national landfill" and 4-7 "Develop a conceptional plan of the waste disposal" 5-1 "Develop the training program on 3R / recycling program to be used at the regional training/workshop" to "Develop the training program on 3R /SWM to be used at the regional training/workshop"
4	Mar. 2014	Modified Indicators; 1-2 "The financial balance between income and expenditure of BCDFP is well maintained" to "Amount of shipped off containers" 3-2 " # of installed recycling bins at MPIIC" to "# of school presentations/ visits & conducted workshops"
5	Dec. 2015	Modified Indicators; 1-1 "% of amount of containers redeemed out of imported beverage containers by the end of the Project" to "SWM-BPW can regularly monitor redemption rate" 1-2 "Amount of shipped off containers" to "SWM-BPW can regularly monitor the amount of shipped-off beverage containers"

2.3 Marshall Islands

a. PDM

a.1. Begging of the Project

ANNEX III-1: Project Design Matrix (PDM) - Marshall Islands				PDM: Version 0
Project Title: Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM)				
Target Group: C/Ps of OEPPC, MPW, EPA, MAWC, MLG, KAL Gov. MICS		Final Beneficiaries: Citizens of Marshall Islands		Project period: 5 years
Implementing Agency: OEPPC, MPW, EPA, MAWC, MLG, KAL Gov. MICS		Target Area: Marshall Island (Majuro and Ebeye)		
Narrative Summary		Objectively Verifiable Indicators	Means of Verifications	Important Assumptions
Overall Goal				
Sustainable management of solid waste in the Pacific Region is enhanced		1. To be discussed	To be advised	
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. # of experts (Trainers) in the field of recycling system listed in the SPREP inventory 2. Volume of disposal waste per population is reduced by XX %	SPREP (Regional inventory of skilled people) To be advised	1. Natural disaster would not drastically affect the collaboration among PICs and SPREP. 2. Political changes of PICs would not drastically affect the collaboration among PICs and SPREP.
#	Priorities under RS2010	Outputs		
1	Sustainable Financing			
2-1	3Rs/4Rs	Output 3: Composting system is improved in Majuro. Output 5: Solid waste management system is improved in Ebeye.	3-1 Volume of compost sales are increased in Majuro	To be advised
2-2	Waste Disposal			
2-3	Waste Collection	Output 2: Recycling system is improved in Majuro.	2-1 Baseline data are obtained 2-2 Separate collection of cans is conducted 2-3 Recycled volume is increased by 30 %	To be advised
3	Legislation			
4	Awareness/Communication/ Education	Output 4: School-based recycle system is introduced in Majuro.	4-1 Manual/material of awareness raising is developed. 4-2 Poster contests are conducted on a regular schedule. 4-3 Recycle programs are implemented in over 80% of public elementary schools.	To be advised
5	Capacity Building			
6	Environmental Monitoring			
7	Policy Planning, Performance	Output 1: NSWMS is implemented.	1-1 Action plan of Majuro is finalized.	To be advised
8	Solid Waste Industry			
*	Monitoring system of RS2010			
Activities		Inputs		
	Please see PO for details.	Japanese Side	Marshall Islands side	
		Dispatch of JICA experts	Assignment of National PD/PM and CPs	1. Counterpart personnel keep working in the field of SWM.
		Provision of Regional, sub-regional and in-country workshops / training	Local Costs Sharing Provision of necessary land/facility, work space	2. Necessary budget to carry out activities is allocated from the government.
		Local cost support		
				Pre-condition
				Cooperation of community people of the target area is obtained.
* OEPPC= Office of Environmental Planning and Policy Coordination, MPW=Ministry of Public Works, EPA=Environmental Protection Authority, MAWC=Marshall Atoll Waste Company, MLG=Majuro Atoll Local Government, KAL Gov.=Kwajalein Atoll Local Government, MICS=Marshall Islands Conservation Society, NSWMS=National Solid Waste Management Strategy				

a.2.End of the Project

ANNEX I: Project Design Matrix (PDM) - Marshall Islands			PDM: Version 2 (13-Nov,2015)
Project Title: Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM)			
Target Group : C/Is of OEPPC, MPW, EPA, MAWC, MLG, KALGov. MOE	Final Beneficiaries: Citizens of Marshall Islands		Project period: 5 years
Implementing Agency: OEPPC, MPW, EPA, MAWC, MLG, KALGov., MOE	Target Area: Marshall Island (Majuro and Ebeye)		
Narrative Summary	Objectively Verifiable Indicators	Means of Verifications	Important Assumptions
Overall Goal Sustainable management of solid waste in the Pacific Region is enhanced	1.Good practices developed in Marshall Islands is implemented in other island countries tackling with common issues 2.At least one training/workshop in the region which is conducted by facilitators/trainers from Marshall Islands in three years after completion of the project.	1. Report of activities on experience sharing 2. Records of training/workshop organized by counterparts in Marshall Islands	
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. 6 experts (Trainers) listed in the SPREP inventory 2. Good practices and experience are shared among Majuro and other Atoll Local Governments.	1.SPREP (Regional inventory of skilled people) 2.Records on cooperation activities/actions.	1. Natural disaster would not drastically affect the collaboration among PICs and SPREP. 2. Political changes of PICs would not drastically affect the collaboration among PICs and SPREP.
#	Outputs		
1	NSWMS is implemented.	1-1 NSWMS and Action plan of Majuro is finalized. 1-2 Implementation of Action plan is monitored and reviewed by the Monitoring Committee 3 times a year. 1-3 Progress report is issued annually.	1-1 Finalized NSWMS and Action plan 1-2 Reports/check results of Monitoring presented for the Monitoring committee". **Monitoring Committee: OEPPC(Chair), MPW, MAWC, EPA, MOE 1-3 Annual progress report
2	Recycling system is improved in Majuro.	2-1 Recycle products is increased year by year. 2-2 # of collected and exported materials are increasing year by year.	2-1& 2-2 Reports/check results of Monitoring presented for the Monitoring committee.
3	Composting system is improved in Majuro.	3-1 Volume of compost production are increased in Majuro	3-1 Reports/check results of Monitoring presented for the Monitoring committee.
4	School-based recycle system is introduced in Majuro.	4-1 Manual/material of awareness raising is developed. 4-2 Campaign activities are conducted on a regular schedule. 4-3 I-Recycle programs are implemented in over 80% of elementary schools in Majuro.	4-1 Manual and Materials 4-2 & 4-3 Reports/ check results of Monitoring presented for the Monitoring Committee.
5	Solid waste management system is improved in Ebeye.	5-1 Plan for improvement of waste collection is drafted. 5-2 The burning in the open dumping decreased to 0 in Ebeye. 5-3 The waste is located separately and adequately in dump site. 5-4 Bulky waste collection is separated from the common household waste. 5-5 Education on 4R promotion is conducted for all school classroom. 5-6 Teacher training on 4R promotion is conducted for all teachers in Ebeye. *4R: Refuse, Reduce, Reuse, Recycle 5-7 Plan for paper fuel is drafted	5-1 Plan for improvement of waste collection 5-2,5-3&5-4 Evaluation results of Management level on dump site 5-5&5-6 Records on education activities/actions on 4R promotion. 5-7 Drafted plan for paper fuel.
Activities		Inputs	
Please see PO for details.		Japanese Side	Marshall Islands side
		Dispatch of JICA experts	Assignment of National PD/PM and CPs
		Provision of Regional, sub-regional and in-country workshops / training	Local Costs Sharing Provision of necessary land/facility, work space
		Local cost support	
			Pre-condition
			Cooperation of community people of the target area is obtained.

* OEPPC= Office of Environmental Planning and Policy Coordination, MPW=Ministry of Public Works, EPA=Environmental Protection Authority, MAWC=Marshall Atoll Waste Company, MLG=Majuro Atoll Local Government, KALGov.=Kwajalein Atoll Local Government, MICS=Marshall Islands Conservation Society, NSWMS=National Solid Waste Management Strategy

a.3. Historical Modifications

Version No.	The endorsed date	Details of Modifications
original		Beginning of the Project
0	Feb. 2013	<p>Indicator 1-1 was modified as “NSWMS and Action plan of Majuro is finalized”.</p> <p>Add Indicator 1-2 Implementation of Action plan is monitored and reviewed by the Monitoring Committee 3 times a year.</p> <p>Add Indicator 1.3. Progress report is issued annually.</p> <p>Indicator 2-1 was modified as “Sales of recycle products is increased year by year. ”</p> <p>Indicator 2-2 was modified as “# of collected and exported materials are increasing year by year.”</p> <p>Indicator 2-3 was deleted,</p> <p>Indicator 3-1 was modified as “Volume of compost sales production are increased in Majuro”</p> <p>Indicator 4-2 was modified as “Campaign activities are conducted on a regular schedule.”</p> <p>Add Indicator 5-1 Experience on SWM in Majuro is shared and introduced.</p> <p>Add Indicator 5-2 Time & motion study and evaluation on waste collection are implemented.</p> <p>Add Indicator 5-3 Management in dump site is improved, such as "no more open burning", "dumping waste should be separated and stocked at one section in the dump site", "Separate bulky waste from household waste".</p>
1	Feb. 2014	<p>The original Indicator 5-1 was deleted.</p> <p>Indicator 5-1 was modified accordingly “Plan for improvement of waste collection is drafted.”</p> <p>Indicator 5-3 was divided to make more specific indicators new 5-2, 5-3 and 5-4</p> <p>Add indicator as “5-5 Education on 4R promotion is conducted for all school classroom.”</p> <p>Add indicator as “5-6 teacher training on 4R promotion is conducted for all teachers in Ebeye.”</p> <p>Add indicator as “5-7 Plan for paper fuel is drafted”</p>

3.1 FSM: OEEM, Kosrae, Pohnpei, Chuuk and Yap States

ANNEX - 18

#	Name	Management CPs	Assigned Period	Position	Organization	Activities in charge	2011					2012					2013					2014					2015																								
							1	2	3	4	5	6	7	8	9	#	1	2	3	4	5	6	7	8	9	#	1	2	3	4	5	6	7	8	9	#	1	2	3	4	5	6	7	8	9	#	1	2	3	4	5
1	Techur Rengulbai	Project Director	Feb. 2011-Feb. 2013	Director	Bureau of Public Works, Ministry of Public Infrastructure, Industry and Commerce	Resigned																																													
2	Brian Melairei	Project Director	Feb. 2013-	Director	Bureau of Public Works, Ministry of Public Infrastructure, Industry and Commerce	All																																													
3	Calvin Ikesil	Project Manager	Feb. 2011-	Manager	Solid Waste Office, Bureau of Public Works, Ministry of Public Infrastructure, Industry and Commerce(SWM-BPW)	All																																													
#	Name	Technical CPs	Assigned Period	Position	Organization	Activities in charge	2011					2012					2013					2014					2014																								
1	Mengkur Recheluk		Feb. 2011-	Educator	SWM-BPW	3-1, 3-2, 3-3																																													
2	Vernon Basiliu		Feb. 2011-	Operator	SWM-BPW	no activities in charge on POMIPO as of Jul 2013. But some activities might be considered in due course																																													
3	Sylvester Bernert		Feb. 2011-	Operator	SWM-BPW	no activities in charge on POMIPO as of Jul 2013. But some activities might be considered in due course																																													
4	Jessica Shizuko Emesiochel		Mar. 2014-	Coordinator	SWM-BPW																																														
5	Isumechaard K. Ngirairiki		Feb. 2011-Aug. 2013	Outreach Officer	Environmental Quality and Protection Board	Resigned																																													
6	John O. Ngiraked, Jr.*		Feb. 2011-	Project Coordinator	Solid Waste Management Office of Koror State Governemnt (SWM-KSG)	1-1, 5-1, 5-2, 5-3																																													
7	Bachat Arsenio*		Feb. 2011-	Community Educator	SWM-KSG	1-1, 5-1, 5-2, 5-3																																													
8	Selby P. Etibek*		Jan. 2013-	Manager	SWM-KSG	1-1, 5-1, 5-2, 5-3																																													
9	Baily Sokyang**		Feb. 2011-	Community Educator	SWM-KSG	1-1, 5-1, 5-2, 5-3																																													

#	Name	Management CPs	Assigned Period	Position	Organization		2011												2012												2013												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	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	Casten N. Nerma		Feb. 2011- Sep.2014	Chief Secretary	Chief secretary																																																													
2	Justina Langidrik		Sep. 2014-	Acting Chief Secretary	Chief secretary																																																													
3	Smith Ysawa	National Project Director	Feb. 2011- Feb. 2013	Secretary	Ministry of Public Works																																																													
4	Jorelik Tibon	National Project Manager	Oct.2011-	General Manager	Majuro Atoll Waste Company																																																													
5	Roger	National Project Manager	Mar.2007- Mar.2011	General Manager	Majuro Atoll Waste Company																																																													
6	Steve Why	National Project Manager	Apr.2011- Sep. 2011	General Manager	Majuro Atoll Waste Company																																																													
7	Gary Ueno		Feb. 2011- Sep.2015	Secretary	Ministry of Education																																																													
8	Evelyn Konou		Nov. 2015-	Commissioner	Ministry of Education (Public School Program)																																																													
9	Wilbur Allen	National Project Director	May. 2013-	Secretary	Ministry of Public Works																																																													
10	Bruce Kijner		May. 2013- Mar.2015	Director	Office of Environmental Planning and Policy																																																													
11	Lowell Alik		May.2015-	Director	Office of Environmental Planning and Policy																																																													
12	Moriana Philip		Oct.2015-	General Manager	Environmental Protection Authority in Marshall																																																													

4 Inputs

4.1 Dispatch of Japanese Experts

Two JICA Experts were dispatched during the Project period. The total assignment was 21 man-months during May 2014 to December 2015. The schedule of the assignments is shown below.

Name (task of the Expert))		Number of trips																												Number of days Total	Man-months Total					
			5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3											
Akira Haseyama (Head of the Expert Team, SWM-C)	Plan	7	█		(59)	█		(41)	█			(64)	█		(36)	█		(29)	█		(50)	█		(52)				331	11.03							
	Actual	3	6/10		(55)	8/3		(43)	10/26		(48)	12/12		(59)	1/15		(48)	3/14		(29)	4/19		(50)	6/5		(52)	8/23		(49)	12/20 (day)	331	11.03				
Risa Muranaka (SWM-D)	Plan	7	█		(47)	█		(40)	█			(64)	█		(43)	█		(29)	█		(33)	█		(43)				299	9.97							
	Actual	3	8/10		(44)	7/23		(37)	8/17		(48)	9/25		(59)	10/26		(47)	12/15		(29)	1/27		(50)	3/14		(52)	4/18		(49)	6/5	7/26	8/30	11/7	12/13	12/14 - 12/20 (days)	299
																													Plan	630	21.00					
			Sub total																										Actual	630	21.00					

5 Lists of the Products and the Related Documents

5.1 Lists of Workshops and Trainings

Totally 11 major workshops and trainings were conducted in the Micronesia Region from the beginning of the J-PRISM in 2011. The outline of the each workshop or trainings were shown below.

a. FSM SWM Experience Sharing Workshop (Kosrae)

1. Outline of the Workshop/ Training					
Name	FSM Solid Waste Management Experience Sharing Workshop: Planning for Success				
Outline	Development of the FSM States SWM strategies				
Type	Workshop				
Theme	2-1. National/State SWM Strategy				
Host organization	JICA • SPREP				
Date	15th to 17th of November, 2011				
Place	Kosrae State of FSM				
Number of the participants	36				
Cost					
Others	SPREP Experts were main facilitators and Expert C and Expert D didn't attend the workshop				
2. Participants	Name	Title	Organization	Man/Female	Role
	1 Mr. Charles Lon		Pohnpei EPA	M	Other Participant
	2 Mr. Henry Susaia		Pohnpei EPA	M	Other Participant
	3 Mr. Kazuya Nishimura	JOCV	Pohnpei EPA	M	Other Participant
	4 Mr. Jack Sham	Manager for solid and Hazardous W	Chuuk EPA	M	Other Participant
	5 Mr. Kenichi Maekawa	JOCV	Chuuk EPA	M	Other Participant
	6 Mr. John Newo	Dump site manager	Chuuk EPA	M	Other Participant
	7 Mr. Jason Poll	Deputy Director	Chuuk EPA	M	Other Participant
	8 Mr. Ismael H. Mikel	Executive Director (State Project M	Chuuk EPA	M	Other Participant
	9 Ms. Christina Fillmed	Executive Director (State Project M	Yap EPA	F	Other Participant
	10 Mr. James Samong	Chief enginner	Yap PW&T	M	Other Participant
	11 Mr. Lyndon H. Jackdon	Governor of Kosrae State	Governor, Kosrae	M	Other Participant
	12 Mr. Robert Jackson	Executive Director (State Project M	Kosrae KIRMA	M	Other Participant
	13 Mr. Yoichi Kashiara (Nena	JOCV	Kosrae KIRMA	M	Other Participant
	14 Mr. Blair Charley	GIS Coord.	Kosrae KIRMA	M	Other Participant
	15 Mr. Kiopu Luey	Project Inspector	Kosrae KIRMA	M	Other Participant
	16 Mr. Presley Abraham	Dev. Project Coord.	Kosrae KIRMA	M	Other Participant
	17 Mr. Simpson Abraham	Project Manager	Kosrae PACC	M	Other Participant
	18 Mr. Weston Luckymis	Director	Kosrae DT&I	M	Other Participant
	19 Mr. Hairom Livae	Administrative Officer	Kosrae DT&I	M	Other Participant
	20 Mr. Thansley Kinere	Administrator	Kosrae DT&I	M	Other Participant
	21 Mr. Norlin Livae	Sanitation Director	Kosrae State Hospital	M	Other Participant
	22 Mr. Issac Isac		Kosrae State Hospital	M	Other Participant
	23 Mr. Widmer Sigrah	Mayor, Lelu municipality	Municipalities	M	Other Participant
	24 Mr. Jacob Z. George	Mayor, Tafunsak municipality		M	Other Participant
	25 Mr. Klava Klavasru	Mayor, Malem municipality		M	Other Participant
	26 Mr. Natchuo Andrew	Mayor, Utwe municipality		M	Other Participant
	27 Ms. Maria Stephens		Micronesisa Eco Inc	F	Other Participant
	28 Mr. Mark Stephens		Micronesisa Eco Inc	M	Other Participant
	29 Mr. Luke Sanney		NGO	M	Other Participant
	30 Mr. John Dickson Wichep		TC&I	M	Resorce Person
	31 Ms. Cindy Ehmes	Program Manager (National Project	OEEM	F	Other Participant
	32 Ms. Beverly Susumu		OEEM	F	Other Participant
	33 Ms. Esther		SPREP	F	Trainer
	34 Mr. David Haynes		SPREP	M	Trainer
	35 Mr. Hideo Azuma	JICA Expert, J-PRISM	JICA Expert	M	Trainer
	36 Mr. Yasutoshi Sagami	Project Formulated Coordinator	JICA Micronesia Offic	M	Other Participant



Group discussion



Presentation



Group photo

b. RMI SWM Workshop (Majuro)

1. Outline of the Workshop/ Training					
Name	RMI Solid Waste Management Workshop:				
Outline	Development of the RMI National SWM strategies				
Type	Workshop				
Theme	2-1. National/State SWM Strategy				
Host organization	JICA•SPREP				
Date	19th of June, 2012				
Place	Majuro, RMI				
Number of the participants	31				
Cost					
Others					
2. Participants	Name	Title	Organization	Man/Female	Role
	1 Mr. Aeto Bantol		KALGOV	M	
	2 Mr. Alexander Reker		MICS	M	
	3 Mr. Antrari Jacson		CMI	M	
	4 Ms. Betty Tibon Tmaakt		WUTMI	F	
	5 Ms. Carmen Bigeler		WUTMI	F	
	6 Mr. Casten Nemro		CSO	M	
	7 Mr. Daniel Hone		MOH	M	
	8 Mr. Douglasss Henry		OEPPC	M	
	9 Mr. Emelyn Simon		MIVA		
	10 Ms. Jassica Zebedee		OEPPC	F	
	11 Mr. Jorelik Tibon		MAWC	M	
	12 Mr. Julian Alik		EPA	M	
	13 Mr. Kimber Riometo		USP		
	14 Mr. Mark Stege		ABD	M	
	15 Mr. Masie Maddison		WUTMI		
	16 Mr. Melvin Majmeto		MALGOV		
	17 Mr. Ned Lowiji		OEPPC		
	18 Mr. Roney Arelong		EPA	M	
	19 Mr. Smith Ysawa		MOPW	M	
	20 Mr. Telipn Ntamon		MAWC	M	
	21 Mr. Tema Kotoimoala		RRE	M	
	22 Mr. Warwick Herris		OEPPC	M	
	23 Mr. Wibur Allen		MOPW	M	
	24 Mr. David Haynes		SPREP	M	
	25 Ms. Esther Richerds		SPREP	F	
	26 Mr. Akira Haseyama		JICA	M	
	27 Mr. Junji Ishizuka		JICA	M	
	28 Mr. Katshiro Kamei		JICA/SV	M	
	29 Ms. Sachiko Omori		JICA/SV	F	
	30 Ms. Asami Kinoshita		JICA/JOCV	F	
	31 Mr. Yasutoshi Sagami		JICA/PFA	M	



Group discussion



Presentation



Group photo

c. Regional Training on Waste Landfill Management (Yap)

1. Outline of the Workshop/ Training					
Name	Regional Training on Waste Landfill Management, Yap, FSM				
Outline	Training to learn how to operate and maintain the landfill				
Type	Workshop				
Theme	5-2. Landfill Improvement/Rehabilitation/construction				
Host organization	JICA				
Date	18th to 22nd of February, 2013				
Place	Yap, FSM				
Number of the participants	36				
Cost	about US\$11000				
Others					
2. Participants	Name	Title	Organization	Man/Female	Role
1	Mr. Charles Lohn	Specialist	Pohnpei EPA	M	Other Participant
2	Mr. Pius Yaropiyal	Supervisor	Pohnpei PWMS	M	Other Participant
3	Mr. Kiobu K. Luey	Inspector	Kosrae KIRMA	M	Other Participant
4	Mr. Zakias Obet	Project Inspector	Kosrae Division of Design & Engineering	M	Other Participant
5	Mr. Atsushi Sakane	SV	JICA	M	Other Participant
6	Mr. Jack H. Sham	SWM manager	Chuuk EPA	M	Other Participant
7	Mr. John Michael Newo.	Landfill bulldozer operator	Chuuk DT&PW	M	Other Participant
8	Mr. Vincent Figir or Mr. Mano Maleichog	Director/Deputy Director	Yap PWT	M	Other Participant
9	Mr. Manny Mendoza	Engineer - Contracts & Engineering	Yap PWT	M	Other Participant
10	Mr. John Alfonso	Inspector - Contracts & Engineering	Yap PWT	M	Other Participant
11	Mr. Ruot Vitus	Road & Ground	Yap PWT	M	Other Participant
12	Mr. Jesse Waayan	Program Manager	Yap PWT	M	Other Participant
13	Mr. Benjamin Runyad	Road & Ground	Yap PWT	M	Other Participant
14	Ms. Christina Fillmed	Exec Director	Yap EPA	F	Other Participant
15	Mr. Joe Fanafal	Pollution Control Program specialist I	Yap EPA	M	Other Participant
16	Mr. Peter Fattamag	Pollution Control Program Specialist II	Yap EPA	M	Other Participant
17	Mr. Tetsuo Azuma(will join from 21st and 22)	SV JICA	Yap EPA	M	Other Participant
18	Mr. Jesse Faimaw	President	Yap Island Paradise Recycling Company	M	Other Participant
19	Mr. Alphonsus Ruwema	Staff	Yap Island Paradise Recycling Company	M	Other Participant
20	Mr. Francis Girad		Yap Surangel & Sons Company	M	Other Participant
21	Mr. Daniel Ralap		Yap Surangel & Sons Company	M	Other Participant
22	Mr. Phillip Waayan Kaborag	owner of Collection company (one candidate to manage landfill in the future)	Yap Eenvironmental Waste Solution	M	Other Participant
23	Mr. Mathew Thigthen	water specialist	Yap EPA	M	Other Participant
24	Ms. Anastasia A. R. Perogolo	water quality technician	Yap EPA	M	Other Participant
25	Mr. Francis Ochey		Yap PWT	M	Other Participant
26	Mr. Gbriel Tamanmoon		Yap PWT	M	Other Participant
27	Mr. Sylvester Bemert	M-Dock bulldozer operator	MPIIC-SWM	M	Other Participant
28	Mr. Vernon Basiliu	M-Dock equipment maintenance	MPIIC-SWM	M	Other Participant
29	Mr. Calvin Ikesiil	SWM manager	MPIIC-SWM	M	Other Participant
30	Mr. Akira Haseyama	Expert	J-PRISM	M	Resorce Person
31	Ms. Risa Muranaka	Expert	J-PRISM	F	Other Participant
32	Mr. Amos Mathias			M	Other Participant
33	Mr. Shiro Amano	Chief Advisor	J-PRISM	M	Trainer
34	Mr. Faafetai Sagapolutele	Assistant Chief Advisor	J-PRISM	M	Trainer
35	Mr. Hiromichi Kano	Coordinator	J-PRISM	M	Trainer
36	Mr. Makoto Tsukiji	Coordinator	J-PRISM	M	Other Participant



Instruction of gas venting pipes



Presentation



Group photo

d. Training on improvement of the dumpsite (Majuro)

1. Outline of the Workshop/ Training					
Name	Training on improvement of the dumpsite				
Outline	Operation and Maintenance of landfill/dumpsite				
Type	Training				
Theme	5-2. Landfill Improvement/Rehabilitation/construction				
Host organization	JICA				
Date	4th – 5th of March, 2013				
Place	Majuro, RMI				
Number of the participants	13				
Cost					
Others					
2. Participants	Name	Title	Organization	Man/Female	Role
1	Mr. Jorelik Tibon	General Manager	MAWC		
2	Mr. Teliphen Neamon	Community Outreach Officer	MAWC		
3	Mr. Manuel Graham	Site Supervisor	MAWC		
4	Mr. Melton Amsa	Carpenter	MAWC		
5	Mr. Marton Johnny	Operator	MAWC		
6	Mr. David Janer	Technical Staff	MAWC		
7	Mr. Jitau Tokamaen	Operator	MAWC		
8	Wesley D. Lemari	Officer	KALG		
9	Katsuhiro Kamei	JICA SV	MAWC		
10	Akira Haseyama	JICA expert	JICA		
11	Makoto Tsukiji	Project Coordinator	JICA		
12	Shun Nesaki		JICA		
13	Yasushi Matsufuji	Professor	Fukuoka Univ.		



Training to install gas venting pipes



Training of compaction



The gas venting pipe which installed

e. Pilot Project on Rehabilitation to Semi-aerobic landfill (Pohnpei)

1. Outline of the Workshop/ Training					
Name	Pilot Project on Rehabilitation for Semi-aerobic landfill, Pohnpei, FSM				
Outline	Field work on the rehabilitation of the dumpsite				
Type	Training				
Theme	5-2. Landfill Improvement/Rehabilitation/construction				
Host organization	JICA				
Date	17th – 28th of June, 2013				
Place	Pohnpei, FSM				
Number of the participants	20				
Cost					
Others					
2. Participants	Name	Title	Organization	Man/Female	Role
	1 Ms. Patti Pedras		OEEM	F	
	2 Mr. Charles Lohn		EPA,PNI	M	
	3 Mr. Nelson Henry Jr.		T&I, PNI	M	
	4 Mr. Etler Joseph		Madolenihmw Municipa	M	
	5 Mr. John Rensle		Madolenihmw Municipa	M	
	6 Mr. Yamasda Ehpel		Kolonia Municipal Gov	M	
	7 Mr. Yoma Edward		Sokehs MunicipalGove	M	
	8 Mr. Francisco Sohl		Sokehs MunicipalGove	M	
	9 Mr. Rainer Gilmete		Kitti Municipal Govern	M	
	10 Mr. Pius Yaropiy		PWMS,Pohn State,FSM	M	
	11 Mr. Timothy Sanel		PWMS,Pohn State,FSM	M	
	12 Mr. Domingko Mikel		PWMS,Pohn State,FSM	M	
	13 Ms. Karen Wonders		PMU, National Govern	F	
	14 Mr. Hairom Livae		DT&I, Kosrae	M	
	15 Mr. Palikkun I. Sigrah		DT&I, Kosrae	M	
	16 Mr. Johnny Killion		DT&PW, Chuuk	M	
	17 Mr. Rudy Ernist		PW, Chuuk	M	
	18 Mr. Jesse Faimaw		Island Paradise, Yap	M	
	19 Mr. Manuel Graham		MAWC, Majuro, RMI	M	
	20 Mr. Wesley Lemari		PW, Kwajalein, RMI	M	



Field works



After improvement



Group photo

f. Regional Training of 3R (Palau)

1. Outline of the Workshop/ Training					
Name	J-PRISM Regional Training on Promotion of 3R in Palau				
Outline	3R , but mainly CDL				
Type	Workshop				
Theme	6-3. Recycle technology				
Host organization	JICA				
Date	4th to 7th of November, 2013				
Place	Koror, Palau				
Number of the participants	39				
Cost	About US\$2300 (Excluding the cost of the dispatch and travel fee of the trainers)				
Others	last 2 days of the training was cancelled due to the typhoon				
2. Participants	Name	Title	Organization	Man/Female	Role
1	Setoa Apo	Prinncipal Waste Management Officer	Samoa Division of Environment and Conservation, Ministry of Natural Resources and Environment	M	Other Participant
2	Gillian Shirley Malielegaoi		Samoa Legal Division, Ministry of Natural Resources and Environment	F	Other Participant
3	Patti Pedrus	Sustainable Development Planner	Office of Environment and Emergency Management (OEEM)	F	Other Participant
4	Christina Fillmed	Executive Director	Yap Environmental Protection Agency (EPA)	F	Other Participant
5	Joe Fanafal	Pollution Control Program specialis I	Yap Environmental Protection Agency (EPA)	M	Other Participant
6	Jesse Faimaw	President	yap Island Paradise Recycling Company	M	Other Participant
7	Alice Phal	Tax collector	Yap Tax and Renew Division, Office of Administrative Services	F	Other Participant
8	Ismael Mikel	Executive Director	Chuuk Environmental Protection Agency (EPA)	M	Other Participant
9	Jason Saeson Poll	Deputy Director	Chuuk Environmental Protection Agency (EPA)	M	Other Participant
10	Jack H. Sham	Manager of Solid Waste Manageemnt	Chuuk Environmental Protection Agency (EPA)	M	Other Participant
11	Albert Roby	Director	Pohnpei Environemtal Protection Agency (EPA)	M	Other Participant
12	Casiano Shoniber	Mayor	Pohnpei Kolonia Town	M	Other Participant
13	Thomas Pablo	Director	Pohnpei Finance, Pohnpei State Government	M	Other Participant
14	Robert Jackson	Director	Kosrae Island Resource Management Authority (KIRMA)	M	Other Participant
15	Likiaki A. Melander	Environment Education Coordinator	KIRMA	M	Other Participant
16	Fanelli Maria Grazia		Kosrae Micronesia Eco	F	Other Participant
17	Calvin Ikesiil	Manager	Palau Solid Waste Management of Bureau of Public Works, MPIIC (SWM-BPW)	M	Trainer
18	Mengkur Rechelulk	Educator	SWM-BPW	M	Trainer
19	John O. Ngiraked, Jr.	Project Coordinator	Palau Solid Waste Management office, Koror State (SWM-KSG)	M	Trainer
20	Selby P. Etibek	Manager	SWM-KSG	M	Trainer
21	Ngirbechat Arsenio	Administrative officer for community	SWM-KSG	M	Trainer
22	Leerott Wilhelm	Waste Generation Rate Surveyor/Technical Assistant	SWM-KSG	M	Trainer
23	Katsuo Fuji	Consultant	SWM-KSG	M	Trainer
24	Francisca Emilio	Compost Assistant	SWM-KSG	M	Trainer
25	Noria Manahane	Senior Annuitant	Palau Division of National Treasury, Ministry of Finance	F	Trainer
26	Joleen Speswngel	IT support Specialist	Palau Division of Custom, Ministry of Finance	F	Trainer
27	Alice Leney	Director	Pacific Reef Savers Ltd	M	Trainer
28	Risa Muranaka	Expert	J-PRISM	F	Resorce Person
29	Esther Richards	Advisor, Waste Management & Pollution Control	SPREP	F	Resorce Person
30	Shio Amano	Chief Advisor	J-PRISM Project Office, JICA	M	Resorce Person
31	Faafetai Sagapolutele	Assistant Chief Advisor	J-PRISM Project Office, JICA	M	Resorce Person
32	Makoto Tsukiji	Project Coordinator	J-PRISM Project Office, JICA	M	Resorce Person
33	Pueina Parkinson	Project Assistant	J-PRISM Project Office, JICA	F	Other Participant
34	Yositaka Adachi	Governor	Koror State	M	Other Participant
35	Nobuaki Matsui	Resident Representative	JICA Palau Office	M	Other Participant
36	Takahisa Watanabe	Project Formulation Advisor	JICA FSM Office	M	Other Participant
37	Takahiro Hamagawa	JOCV	Pohnpei Environemtal Protection Agency (EPA)	M	Other Participant
38	Ayumi Kikuchi	JOCV	Kosrae KIRMA	F	Other Participant
39	Ayako Kondo	JOCV	Marshall Island EPA	F	Other Participant



Site visit in Koror State



Presentation



Group photo

g. Teacher Training on 4R promotion (Ebeye)

1. Outline of the Workshop/ Training					
Name	Teacher Training on 4R promotion in Ebeye				
Outline	Workshops for teachers				
Type	Workshop				
Theme	6-2. School/Community Program				
Host organization	KALG/JICA				
Date	5th - 7th November, 2013				
Place	Ebeye, Kwajalein, RMI				
Number of the participants	54				
Cost					
Others					
2. Participants	Name	Title	Organization	Man/Female	Role
1	Mr. Wesley Lemari	Asst Director	KALG/PW	M	
2	Mr. Julian Alik	Chief Officer	EPA	M	
3	Mr. Teliphen Neamon		MAWC	M	
4	Mr. Jelton Anjain	Asst. Secretary	MOE	M	
5-55	other 50 teachers				



Lecture by C/P of EPA



Lecture by C/P of MAWC



School workshop

h. Do-Nou Techonology Training (Chuuk)

1. Outline of the Workshop/ Training					
Name	"Do-Nou" Technology Training				
Outline	Learning the maintenance of road with "Do-Nou" technology				
Type	Training				
Theme	5-2. Landfill Improvement/Rehabilitation/construction				
Host organization	JICA				
Date	17th of 21st of February, 2014				
Place	Chuuk, FSM				
Number of the participants	17				
Cost	US\$1874 (excluding the cost of dispatch and travel fee of the trainer)				
Others	The participants were only from Chuuk.				
2. Participants	Name	Title	Organization	Man/Female	Role
	1 Jonney Killion	Director	Chuuk PW	M	Other Participant
	2 Joanes Risin	Assistant Chief	Chuuk PW	M	Other Participant
	3 Rudy Earnist	Road and Ground Supervisor	Chuuk PW	M	Other Participant
	4 Tuko Kutto	Road and Ground Helper	Chuuk PW	M	Other Participant
	5 Nitto Tok	Road and Ground Helper	Chuuk PW	M	Other Participant
	6 Thompson Joseph	Truck Driver	Chuuk PW	M	Other Participant
	7 Joannes Chaniel	Carpenter	Chuuk PW	M	Other Participant
	8 Edwin Kool	Truck Driver	Chuuk PW	M	Other Participant
	9 CiseroWernes	Operator	Chuuk PW	M	Other Participant
	10 Davares David	Mechanic	Chuuk PW	M	Other Participant
	11 Jefy Mefy	Mechanic	Chuuk PW	M	Other Participant
	12 John Neo	Operator	Chuuk PW	M	Other Participant
	13 Jason Saeson Poll	Deputy Director	Chuuk EPA	M	Other Participant
	14 Jack H. Sham	Manager of SWM	Chuuk EPA	M	Other Participant
	15 Yoshinori Fukubayashi	Director	NGO Michibushin-bito	M	Trainer
	16 Shiro Amano	Chief	J-PRISM	M	Resorce Person
	17 Risa Muranaka	J-PRISM Expert	J-PRISM	F	Resorce Person



Session



Practical training at the site



Group photo



Demonstration of how to make "Do-Nou" bags



Demonstration of how to make "Do-Nou" bags



Demonstration of how to compact the "Do-Nou" bags

i. Study Trip to Yap (Chuuk State and Yap State)

1. Outline of the Workshop/ Training					
Name	Study Trip to Yap State				
Outline	Send Chuuk C/P and engineers to learn how to construct a new landfill in Yap				
Type	Training				
Theme	5-2. Landfill Improvement/Rehabilitation/construction				
Host organization	JICA				
Date	8th to 9th of September, 2014				
Place	Yap, FSM				
Number of the participants	13				
Cost	US\$4,607				
Others	One participant from Chuuk paid his own expense himself				
2. Participants	Name	Title	Organization	Man/Female	Role
1	Krescio BILLY	Consultant	Chuuk Planning office, Department of Administrative Services	M	Other Participant
2	Roseller VINLUAN	Engineer	Chuuk Planning office, Department of Administrative Services	M	Other Participant
3	Tos NAKAYAMA	Deputy Director	Chuuk Dept. of Transportation and Public Works	M	Other Participant
4	Curtis Sos	Chief	Chuuk Sanitation office, Dept. of Public Health	M	Other Participant
5	Mano Maleichog	Deputy Director of DP	Yap DPW&T	M	Other Participant
6	James Sarmog	Chief of Contracts & Ei	Yap DPW&T	M	Other Participant
7	Manny Mendoza	Engineer of Contracts	Yap DPW&T	M	Other Participant
8	Jesse Waayan	Manager of SWM	Yap DPW&T	M	Other Participant
9	Christina Fillmed	Director of EPA	Yap EPA	M	Other Participant
10	Peter Fattamag	Pollution Control Spec	Yap EPA	M	Other Participant
11	Joe Fanafal	Pollution Control Spec	Yap EPA	M	Other Participant
12	Akira Haseyama	Chief	J-PRISM	M	Resorce Person
13	Risa Muranaka	J-PRISM Expert	J-PRISM	F	Resorce Person



Site Visit (landfill)



Site Visit (landfill)



Group photo



Presentation by Yap trainer



Discussion



Certificate from Yap trainers to Chuuk trainees

j. Training on integrated SWM (Ebeye)

1. Outline of the Workshop/ Training					
Name	Training on Integrated Solid Waste Management in Ebeye				
Outline	Workshop on the waste collection and landfill management				
Type	Workshop				
Theme	4-1. Waste Collection & Transportation				
Host organization	KALG/JICA				
Date	31th of October – 7th November, 2014				
Place	Ebeye, Kwajalein, RMI				
Number of the participants	18				
Cost	US\$2,000				
Others					
2. Participants	Name	Title	Organization	Man/Female	Role
	1 Mr. Wesley Lemari	Asst Director	KALG/PW	M	
	2 Mr. Jesse L Riketa	Acting COA	KALG	M	
	3 Mr. Ranny Lemari	Collection crew& operator	KALG/PW	M	
	4 Mr. Henner Noka	Collection crew	KALG	M	
	5 Mr. Randy Bajo	Operator	KALG	M	
	6 Mr. Kannel Bemjamin	Collection crew	KALG/PW	M	
	7 Mr. Clarence Luther	Collection crew	KALG/PW	M	
	8 Mr. Georgetown Jakabat	Collection crew	KALG/PW	M	
	9 Mr. Malal Henson	Operator	KALG/PW	M	
	10 Mr. Whitney deBrum	Education and awareness	EPA	M	
	11 mr. Odrikawa Jatios	Deputy GM	EPA	M	
	12 Mr. Julian Reimers	W/S manger	KAJUR	M	
	13 Mr. Reonald Phillip	Janitor	MOH	M	
	14 Mr. Randy Calep	Pipe-w	KAJUR	M	
	15 Mr. Oling deBrum	Director PHC	MOH	M	
	16 Mr. Shownalynn Loeak	Health educator	MOH	M	
	17 Mr. Romeo Alfred	GM	KAJUR	M	
	18 Mr. Mario Vioria	Finance Director	KALG	M	



Workshop



Discussion



Group photo

k. In-Country Training (Palau)

1. Outline of the Workshop/ Training					
Name	In-country trainig in Palau				
Outline	Training				
Type	Training				
Theme	1-1. Waste Generation/Characterization Study				
Host organization	BPW, KSG, JICA				
Date	10th to 14th of August, 2015				
Place	Palau Melekeok State				
Number of the participnats	30				
Cost	about 6000USD shared by BPW and JICA				
Others	In addition to above cost KSG provided transportation of the garbage bags				
2. Paticipants	Name	Title	Organization	Man/Female	Role
1	Dudley Uro		Airai State	M	Other Participant
2	Sengebau Masami		Airai State	F	Other Participant
3	Pamfila Techur		Airai State	M	Other Participant
4	Dennis Omengkar		Melekeok State	M	Other Participant
5	Standford Blaluk		Melekeok State	M	Other Participant
6	Forster Ngirturong		Aimeliik State	M	Other Participant
7	Salui Inacio		Ngiwal State	M	Other Participant
8	Stephanie Lorenzo		Ngchesar State	F	Other Participant
9	Ismael Renguul		Ngiwal State	M	Other Participant
10	Cluster Iechad		Ngaraard State	M	Other Participant
11	Mercy Beketaut		Ngardmau State	F	Other Participant
12	Matsuda Ngiraikelau		Ngeremlengui State	M	Other Participant
13	Inabo Secharmial		Ngeremlengui State	M	Other Participant
14	Clansen Iechad		Ngatpang State	M	Other Participant
15	Khan Cruz		Peleliu State	M	Other Participant
16	Noel Ngedebuu		Angaur State	M	Other Participant
17	Jesse Marcil		Angaur State	M	Other Participant
18	Toshio Kelmal		Kayangel State	M	Other Participant
19	Colombus Edeboi		Kayangel State	M	Other Participant
20	Samuel Bemar		Sonsorol State	M	Other Participant
21	Bernard John		Sonsorol State	M	Other Participant
22	Calvin Ikesiil		SWM-BPW	M	Trainer
23	Mengkur Rechelulk		SWM-BPW	M	Trainer
24	Jessica Emesiochel		SWM-BPW	F	Resorce Person
25	Selby P. Etibek		SWM-KSG	M	Resorce Person
26	Ferris Baulechong		SWM-KSG	M	Resorce Person
27	Leeroth Wilhelm		SWM-KSG	M	Resorce Person
28	Rondy Ronny		SWM-KSG	M	Resorce Person
29	Keiko Kitahara	JOCV	JICA/ SWM-BPW	F	Resorce Person
30	Risa Muranaka	Expert	J-PRISM	F	Resorce Person



Waste segregation



Presentation



Group photo

5.2 Lists of the Products developed during the Project

a. FSM

No	City	Type of Report	Name of Report	Note	Date Finalized	Document Prepared by
1	Chuuk	Survey report	Waste Stream Survey	Outline waste stream including conducting incoming waste survey at dumpsite	5-11	J-PRISM
2	Chuuk	State Strategy	State Solid Waste Management Strategy	State strategy was developed and endorsed by the Government of Chuuk State.	11-12	Chuuk EPA
3	Chuuk	Action Plan	Action Plan of National Solid Waste Management Plan	Action Plan was developed and endorsed by the Government of Chuuk State.	11-12	Chuuk EPA
4	Chuuk	Survey report	Time and Motion study	Time and Motion Study was conducted for one week in Weno.	11-12	J-PRISM
5	Kosrae	Strategy	Kosrae State Solid Waste Management Plan 2011-2015	This plan was already endorsed by governor in 2011.	2011	KIRMA and DT&I
6	Kosrae	Study report	Time and motion study on waste collection	Time and motion study on collection system in Lelu and Tafunsak, Kosrae	10-12	KIRMA
7	Kosrae	Education	Trash in our Island”(in English) and “Trash on Our Island”(in Kosraean)	Educational materials for school 4Rs education	2-13	KIRMA, DT&I and Micronesia Eco Inc.
8	National	Strategy	FSM National Solid Waste Management Strategy 2012-2016	Draft of NSWMS, not endorsed yet.	3-13	OEEM
9	Pohnpei	Study report	Time and motion study on waste collection in Pohnpei, FSM	Time and motion study on collection system in Kolonia and Nett, Pohnpei	12-12	EPA PNI
10	Pohnpei	Strategy	Clean Pohnpei , 2012-2016, A Solid Waste Management Strategic Plan for Pohnpei State	Draft of State SWMS, not endorsed yet.	3-13	EPA PNI
11	Pohnpei	Presentation	A Solid Waste Management Strategic Plan For Pohnpei State Federated States of Micronesia	Presentation that delivered by EPA specialist	3-13	EPA PNI
12	Pohnpei	Pilot project	Landfill Rehabilitation Pilot Project: REPORT	OEEM reported result of pilot project on rehabilitation of dump site.	7-13	OEEM
13	Yap	State Strategy	State Solid Waste Management Strategy	State strategy was developed.	3-13	Yap EPA
14	Yap	Action Plan	State Solid Waste Management Action Plan	Action Plan of the Strategy was developed.	3-13	Yap EPA
15	Yap	Awareness	Poster	For promotion of appropriate waste disposal, 80 poster was designed by counterparts and distributed to schools.	6-13	Yap EPA
16	Yap	Awareness	Sticker	For promotion of appropriate waste disposal, 300 sticker was designed by counterpart and distributed to community and schools.	6-13	Yap EPA
17	Yap	Awareness	Recycling bins	For promotion of appropriate waste disposal, 64 recycling bins were made by counterparts and installed in all schools and public places.	6-13	Yap EPA
18	Yap	Awareness	Presentation	For community workshop, the presentation for promotion of appropriate waste disposal was developed by counterparts.		Yap EPA

19	Chuuk	Training	Road Rehabilitation Training Report	The training held from 17th of Feb-21st of Feb, 2014 in Chuuk State.	2-14	EPA, DT&PW, J-PRISM
20	Chuuk	Training Report	Road Rehabilitation Training Report	The training conducted in February 2014	2-14	JICA Epert (SWM-D)
21	Yap	Construction	New landfill	A new landfill was constructed	2-14	DPW&T, EPA
22	Pohnpei	Strategy	Clean Pohnpei , 2012-2016, A Solid Waste Management Strategic Plan for Pohnpei State	State SWMS with endorsement by State Governor.	2-14	EPA PNI
23	Yap	Awareness	Poster	"Improving how we manage our waste in Yap"	9-14	Yap EPA
24	Kosrae	Education Materials		Video Materials to be used on school 4Rs education	10-14	KIRMA KSA
25	Pohnpei	MOU	MOU between EPA and Municipalities	MOU on cooperation frame of waste collection system	2-15	EPA PNI
26	Pohnpei	Plan/Presentation	Improvement Plan on the dumpsite	Draft Drawing on Improvement Plan of the dumpsite	2-15	PWMS PNI
27	Chuuk/ Yap	Training Report	Activity Report of Study Trip	Report of Study trip of Chuuk C/P to Yap States	9-14	J-PRISM
28	Yap	Green Bag	Green bag for promoting "My bag"	2250pieces	11-14	Yap EPA&OEEM
29	Yap	Construction	Report of rehabilitation of the existing dumpsite in Yap	Improvement of the existing dumpsite	2-15	J-PRISM
30	Chuuk	Awareness	Recycling Bins (Wire bins)	21pieces	3-15	Chuuk EPA
31	OEEM	Document	(DRAFT)Good Practices for Solid Waste Management in the FSM	Document to share the good practices among FSM states	3-15	OEEM
32	OEEM	Document	(DRAFT)Leachate Guidelines	Guideline for management and monitoring on the leachate at dump/landfill sites	3-15	OEEM
33	Kosrae	Report	Kosrae Recycling Report	Recycling report issued by the recycling operator in Kosrae	3-15	Micronesia Eco, Koarae
34	OEEM	Strategy	National Solid Waste Management Plan 2016-2020	National Strategy	5-15	OEEM
35	Yap	Report	Report of WACS in Yap	Survey report of the WACS in April 2015	4-15	J-PRISM
36	Chuuk	Awareness	Sign Boards	More than 6 Notice boards "No Littering" "Don't dump here"	5-15	Chuuk EPA/DT&PW
37	Chuuk	Report	Report of WACS in Chuuk	Survey report of the WACS in May 2015	5-15	J-PRISM
38	Yap	Report	Report of post survey on the Awareness	Second survey on the public to understand the effectiveness of the awareness-raising activities conducted	11-15	J-PRISM
39	Chuuk	Action Plan	Facility and operation plan of Marina dumpsite	The operation plan of the Marina dumpsite	11-15	J-PRISM
40	Yap	Report	Monitoring data of leachate	Monitoring data of leachate		Yap EPA
41	Yap	Report	Monitoring data of operation of landfill	Monitoring data of operation of landfill		Yap EPA
42	Yap	Report	Incoming data of waste at the landfill	Incoming data of waste at the landfill		Yap DPW&T
43	Pohnpei	Field work	The 2nd Cell project at the dumpsite	The excavation and expansion of the 2nd cell at the dumpsite was conducted. Weekly progress reports were submitted to the JICA expert to monitor the progress.	Nov-15 - Jan-2016	Pohnpei EPA, T&I, PWMS
44	Pohnpei	Workshop	The workshop on the waste collection	The workshops on improvement of the waste collection was conducted to learn/share the information on	11-16	Pohnpei EPA, T&I, PWMS, Municipalities

				the methods, knowledge and information on the municipal waste collection services.		
45	Kosrae	Survey	The lifespan survey at the landfill site	The lifespan survey at the landfill site was conducted.	11-15	Kosrae KIRMA, DT&I

b. Palau

No	City	Type of Report	Name of Report	Note	Date Finalized	Document Prepared by
1	Koror	Action Plan	Action Plan of National Solid Waste Management Plan	Action Plan of the National Solid Waste Management Plan was revised.	7-12	Solid Waste Management Office of Bureau of Public Works (SWM-BPW)
2	Koror	Survey report	Study on Landfill Management (Jan, 2013) M-Dock Landfill in Palau	Survey was conducted with counterparts of Bureau of Public Works.	1-13	J-PRISM
3	Koror	Training	3R Regional Training in Palau	Held in Nov. 2013	11-13	Solid Waste Management Office of Koror State Government (SWM-KSG), SWM-BPW, J-PRISM
4	Koror	Education	Manual of Composting	Manual of the composting in Koror State	11-13	SWM-KSG
5	Koror	Education	Manual of CDL	Manual of CDL in Palau	11-13	SWM-BPW, SWM-KSG
6	Koror	Education	Koror State Solid Waste Management	Information about SWM activities in Koror State.	11-13	SWM-KSG
7	Koror	Awareness	T-shirt	This material was developed for the 3R regional training in Palau	11-13	SWM-KSG
8	Koror	Awareness	Brochure	Information about SWM activities in Koror State.	11-13	SWM-KSG
9	Koror	Awareness	DVD	Including the workshops and presentation in the 3R regional training	11-13	SWM-BPW, SWM-KSG
10	Koror	Action Plan	Awareness Action Plan	For the public awareness.	12-13	PEEC
11	Koror	Awareness	3R T-shirt for Earth Day	50 pieces	4-14	SWM-BPW
12	Koror	Awareness	3R Face towel for Earth Day	200pieces	4-14	SWM-BPW
13	Koror	Awareness	Recycling Bin	1 set installed at airport	8-15	SWM-BPW
14	Koror	Survey report	CONTAINER DEPOSIT LEGISLATION ANNUAL REPORT FY 2011-2014		3-15	SWM-BPW
15	Koror	Closure Plan	Closure plan of M-Dock landfill		8-15	J-PRISM
16	Koror	Training report	Report of the In-country training	Training report conducted in August 2015	8-15	J-PRISM
17	Koror	Action Plan	Revised Action Plan of the NSWMP	Revised Action Plan. NSWMP itself will be revised by Feb. 2016.	12-15	SWM-BPW
18	Koror	Report	CONTAINER DEPOSIT LEGISLATION ANNUAL REPORT FY2011—2015		12-15	SWM-BPW

c. Marshall Islands

No	City	Type of Report	Name of Report	Note	Date Finalized	Document Prepared by
1	Majuro	Strategy	National Waste Management Strategy 2012-2016 and Action Plan (draft 21 June, 2012)	Draft of NSWMS, not endorsed yet.	6-12	OEPPC
2	Majuro	Education	Trash on Our Island (Booklet and video materials)	Education materials for 3R education in school or community.	10-12	MAWC, EPA, OEPPC
3	Majuro	Education	Presentation "WASTE IS THE BIG PROBLEM IN THE Dump Site TO YOU KNOW THAT?"	This presentation has been using on School 3Rs education.	10-12	MAWC
4	Majuro	Education	Report on J-PRISM Teacher Training Program	EPA conducted teacher training on Jan 2013.	1-13	EPA
5	Majuro	Presentation	Presentation at JCC meeting, Feb 28, 2013	MAWC CP delivered presentation at JCC meeting in Feb 28, 2013.	2-13	MAWC
6	Majuro	Strategy	National Waste Management Strategy 2012-2016 and Action Plan (draft March, 2014)	Latest draft of NSWMS waiting approval by cabinet	3-14	OEPPC
7	Majuro	Presentation	Presentation at JCC meeting, Feb 7, 2014	CPs delivered presentation at JCC meeting in Feb 7, 2014.	2-13	MAWC, EPA, OEPPC
8	Majuro	Survey	Waste generation and composition survey conducted by MAWC	MAWC conducted survey on waste generation volume and composition.	10-13	MAWC
9	Ebeye	Public Awareness Material	Posters	Posters to promote the public awareness activities	2-15	KALG
10	Majuro	Monitoring	SIX MONTHLY REPORTING TEMPLATE RMI SOLID WASTE MANAGEMENT STRATEGY AND ACTION PLAN	Template of the 6 monthly report	2-15	OEPPC
11	Majuro and Ebeye	Project report	Report of trainer dispatch on Occupational Health and Safety (OHS) in RMI	Report of the OHS workshop	12-15	Mr. Rouhit, Lautoka City Council and Coordinator of J-PRISM
12	Ebeye	Action Plan	Action Plan on Clean School Program in 2015 by schools	The Clean School Program	11-15	Participated schools
13	Ebeye	Survey	Time & Motion Study on waste collection	The time and motion study on the new waste collection vehicles/system was conducted by KALG CPs.	11-15	KALG

6 JCC meetings

Joint Coordinating Committee (JCC) was established to examine the major issues and make consensus through sharing the progress of the project activities. Also the annual activity plan was agreed in the JCC.

In FSM, State level of JCC was held in each State, then National level of JCC was held annually.

The date of the JCC from the first JCC and the JCC members who attended the final JCC were listed below.

6.1 FSM National Level of JCC

a.1.JCC members and stakeholders

JCC members	Organization	Title
Mr. Andrew R. Yatilman	OEEM	Director (Project Director)
Ms. Christina Fillmed	Yap State EPA	Director (Project Manager)
Mr. Ismael Mikel	Chuuk State EPA	Director (Project Manager)
Mr. Henry Susaia	Pohnpei State EPA	Acting Director (Project Manager)
Mr. Robert Jackson	Kosrae State EPA	Director (Project Manager)
Mr. Jonathan Marmar	DPWT	Director
Mr. Tosiwo Nakayama Jr.	DT&I/PW	Director
Mr. Weston Luckymis	DT&I/PW	Director
Mr. Faafetai Sagapolutele	J-PRISM	Assistant Chief Advisor
Mr. Takahisa Watanabe	JICA	Project Formulation Adviser
Mr. Akira Haseyama	J-PRISM	Expert (RMI, Kosrae, Pohnpei)
Ms. Risa Muranaka	J-PRISM	Expert (Belau, Yap, Chuuk)
Stakeholders	Organization	Title
Mrs. Cindy Ehmes	OEEM	Assistant Director
Mr. Brendy Carl	DFA	Foreign Service Officer
Mr. Gillian G. Doone	ODA	Administrator
Mr. Phillip S. Gianan	TC&I	Civil engineer
Ms. Patricia Pedrus (Patti)	OEEM	Sustainable Development Planner
Ms. Stacy Yleizah	DFA	Foreign Service Officer
Mr. Dayn Darin Iehsi	PMU	Quality Assurance Representative
Mr. Rusty Carlos	Pohnpei State EPA	Tech. II
Mr. Pius Yaropiy	PWMS	Assistant Manager
Mr. Peterson Anson	PNI T&I	GIS Specialist
Mr. Tharston T. Sanel	PWMS	Accountant
Mr. Jack Sham	Chuuk State EPA	Solid Waste Management Coordinator
Mr. Curtis Sos	Chuuk State DOH	Chief of Sanitation
Mr. MJ Martin	Chuuk State DOH	Health Inspector
Mr. Westcott Panuelo	Trash Kings	Manager
Mr. Masaki Sakai	Embassy of Japan	Ambassador

a.2.Dates of JCC

1 st JCC	15 th of March, 2012
2 nd JCC	14 th of March, 2013
3 rd JCC	27 th of February, 2014
4 th JCC	4 th of March, 2015
5 th JCC	17 th of December, 2015

6.2 Kosrae State

a.1.JCC members/participants

Name	Organization	Title
Mr. Robert Jackson	KIRMA	Director (Project Manager)
Mr. Weston Luckymis	DT&I	Director
Mr. Hairom Livaie	DT&I	Administrative officer
Mr. Likiak A. Melander	KIRMA	Env. Education Coordinator
Mr. Kiobu Luey	KIRMA	Inspector
Mr. Akira Haseyama	J-PRISM	Expert
Ms. Ayako Yosida	J-PRISM	Project Coordinator
Mr. Morio Nojiri	JICA SV/DT&I	Senior Volunteer
Ms. Arisa Izumidate	JICA JOCV/KIRMA	Volunteer

a.2.Dates of JCC

1 st JCC	16 th of February, 2012
2 nd JCC	14 th of February, 2013
3 rd JCC	13 th of February, 2014
4 th JCC	13 th of February, 2015
5 th JCC	4 th of December, 2015

6.3 Pohnpei State

a.1.JCC members/participants

Name	Organization	Title
Mr. Henry Susaia	Pohnpei State EPA	Acting Director (Project Manager)
Mr. Ricky Leben	Pohnpei State T&I	Acting Administrator
Mr. Joseph Victo	Pohnpei State EPA	
Mr. Rusty Carlos	EPA	Tech. II
Mr. Brad Soram	Pohnpei State EPA	Specialist
Mr. Clinton Etse	Pohnpei State EPA	
Mr. Pius Yaropiy	PWMS	Assistant Manager
Mr. Peterson Anson	PNI T&I	GIS Specialist
Ms. Janet Assey	Kolonia Municipal Government	Finance
Mr. Francisco Sohl	Sokehs Municipal Government	Assistant A.O.
Mr. Rainer Gilwete	Kitti Municipal Government	Public Work
Mr. Rodney Loyola	Nett Municipal Government	Director of R&D
Mr. Johan Jay Welson	U Municipal Government	Project Coordinator
Mr. Pius Yaropiy	PWMS	Project Supervisor
Mr. Faafetai Sagapolutele	J-PRISM	Assistant Chief Advisor
Mr. Akira Haseyama	J-PRISM	Expert
Mr. Risa Muranaka	J-PRISM	Expert
Mr. Takahisa Watanabe	JICA FSM office	PFA
Ms. Judy Robert	JICA FSM office	Program Officer
Mr. Yuki Umemura	EPA/JOCV	JOCV

a.2.Dates of JCC

1st JCC	7 th of February, 2012
2nd JCC	12 th of March, 2013
3rd JCC	20 th of February, 2014
4th JCC	27 th of February, 2015
5th JCC	15 th of December, 2015

6.4 Chuuk State

a.1.JCC members/participants

Name	Organization	Title
Mr. Ismael Mikel	Chuuk State EPA	Director (Project Manager)*
Mr. Tos Nakayama	DT&PW	Director
Mr. Kayo Noked	Weno Municipality	Deputy Mayor
Mr. Jack Sham	EPA	Manager of SWM
Mr. Atauo Ansin	Health Service	Maintenance
Mr. Elmud Yleizah	EPA	Lab. technician
Mr. Kichy Joseph	JICA Chuuk State In charge	Special Assistant to Governor
Mr. Atsushi Nagata	EPA/JICA	JICA volunteer
Mr. Curtis Sos	Health Service	Chief of Sanitation
Mr. Joanes Risin	DT&PW	Assistance chief
Mr. Henning Narruhn	DT&PW	Collection crew
Mr. John Newo	DT&PW	Equipment operator
Mr. Friden Ewen	DT&PW	Collection crew
Mr. Tavares David	DT&PW	Mechanic
Mr. Arvchy Meika	DT&PW	Electrician
Mr. Krescio Billy	Planning Office	Civil Engineer
Mr. Jr. Dave vinluan	Planning Office	State Civil Highway Engineer
Mr. MJ Martin	Environmental Health and Sanitation	Health Inspector
Mr. Marcellus Akapito	Chuuk Conservation Society	Executive Director
Mr. Sam A. Bisalen	Public Safety	Engineer Captain
Ms. Ayako Yoshida	J-PRISM	Project Coordinator
Mr. Akira Haseyama	J-PRISM	Expert
Ms. Risa Muranaka	J-PRISM	Expert

*JCC members but could not attend the 5th JCC

a.2.Dates of JCC

1 st JCC	30 th of January, 2012
2 nd JCC	1 st of March, 2013
3 rd JCC	12 th of February, 2014
4 th JCC	4 th of February, 2015
5 th JCC	25 th of November, 2015

6.5 Yap State

a.1.JCC members/participants

Name	Organization	Title
Ms. Christina Fillmed	EPA	Executive Director (Project Manager)
Mr. Jonathan Marmar	DPW&T	Director
Mr. Manuel Maleichog	DPW&T	Deputy Director
Mr. Julius Tun	Office of Administrative Services	Acting Director
Mr. Jesse W. Sigeyog	DPW&T	Refuse collection program manager
Ms. Anastasia A. R Perogolo	EPA	Water Quality Program Technician
Mr. Jesse Faimaw	Island Paradise Company	Manager
Mr. Masatoshi Katayama	DPW&T	JICA SV
Ms. Ayako Yoshida	J-PRISM	Project Coordinator
Ms. Risa Muranaka	J-PRISM	Expert

*JCC members but could not attend the 5th JCC

a.2.Dates of JCC

1 st JCC	26 th of February, 2012
2 nd JCC	14 th of February, 2013
3 rd JCC	3 rd of February, 2014
4 th JCC	26 th of February, 2015
5 th JCC	16 th of November, 2015

6.6 Palau

a.1.JCC memmers/participants

Name	Organization	Title
Minister Charles I. Obichang	MPIIC	Minister (Chair)
Mr. Brian Melairei	SWM-BPW	Director (Project Director)
Mr. Calvin Ikesiil	SWM-BPW	Chief (Project Manager)
Ms. Jessica Shizuko Emesiochel	SWM-BPW	Coordinator
Mr. Vernon B	SWM-BPW	Landfill supervisor
Ms. Roxanne Sual Blesam	EQPB	Executive Officer
Mr. John O. Ngiraked, Jr.	SWM-KSG	SWM coordinator
Mr. Selby Etibek	SWM-KSG	Manager
Mr. Katsuo Fuji	SWM-KSG	Consultant
Ms. Noria Manahane	Ministry of Finance	Chief Division of Treasury
Mr. Nobuaki Matsui	JICA Palau Office	Resident Representative
Mr. Faafetai Sagapolutele	J-PRISM	Assistant Chief Advisor
Mr. Akira Haseyama	J-PRISM	Expert
Ms. Risa Muranaka	J-PRISM	Expert

a.2.Dates of JCC

1 st JCC	10 th of February, 2012
2 nd JCC	7 th of February, 2013
3 rd JCC	22 nd of January, 2014
4 th JCC	11 th of March, 2015
5 th JCC	1 st of December, 2015

6.7 Marshall Islands

a.1.JCC members/participants

Name	Organization	Title
Ms. Justina R. Langidrik	OCS/Chair of JCC	Interim Chief Secretary (Chair)
Mr. Wilbur Allen	MPW/Project Director	Secretary
Mr. Jorelik Tibon	MAWC/ Project Manager	General Manager
Mr. Warwick Haris	OEPPC	Deputy Director
Mr. Julius Lucky	EPA	Deputy General Manager
Ms. Jessica Zebedee	EPA	Chief Education and Awareness Officer
Mr. Gee Bing	PSS	Associate Commissioner
Mr. Teliphen Neamon	MAWC	Education & Awareness
Mr. Wesley Lemari	Kwajalein Atoll L.G.	Assistant Director of Public Works
Mr. Akira Haseyama	J-PRISM	Expert, J-PRISM
Mr. Shiro Amano	JICA/ J-PRISM	Chief Advisor
Mr. Faafetai Sagapolutele	J-PRISM	Assistant Chief Advisor
Mr. Makoto Tsukiji	J-PRISM	Project Coordinator
Ms. Ayako Yoshida	J-PRISM	Project Coordinator
Mr. Hideki Tomobe	JICA RMI Office	Resident Representative
Mr. Hiroyuki Negoro	JICA	Volunteer (EPA)
Mr. Tim Hartley	SPREP	PacWaste Project Officer
Ms. Ma Bella Guinto	SPREP	Solid Waste Management Advisor

a.2.Dates of JCC

1 st JCC	29 th of February, 2012
2 nd JCC	28 th of February, 2013
3 rd JCC	7 th of February, 2014
4 th JCC	30 th of January, 2015
5 th JCC	13 th of November, 2015