



Port Vila City Council (PVCC)
Shefa Province
Japan International Cooperation Agency (JICA)

**Japanese Technical Cooperation Project for
Promotion of Regional Initiative on
Solid Waste Management in Pacific Island
Countries Phase II**

(J-PRISM II)

**Interim Report
of
Pilot Projects
for
PVCC Solid Waste Management Plan 2021-2030**

March 2020

Port Vila, Vanuatu

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Improvement (October 2019)







Photo



[Preparation of the Pilot Projects]


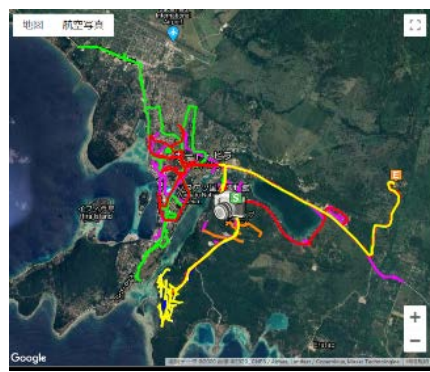
	
Market Waste Collection Point	Ms. Linda, Market Manager
	
Home Compost and Gardening, Northern Ward (1)	Home Compost and Gardening, Northern Ward (2)
	
Home Compost and Gardening, Northern Ward (3)	Example of Source Segregation at home
	
Community Consultation of Yellow Bag Collection	GPS trucking recorder equipped in the waste collection vehicle

[PP1: Waste Collection Improvement]

	
<p>Procurement of the materials for manufacturing garbage station</p>	<p>Manufacturing of garbage station by PVCC staffs</p>
	
<p>Manufactured garbage station (Rubbish bed)</p>	<p>Community meeting in the southern ward for installation of garbage station</p>

[PP2: Private Collection Monitoring]

	
<p>Kick-off workshop for the private collection monitoring with Private Waste Operators</p>	<p>GPS trucking survey (1)</p>

	
GPS trucking survey (2)	Results of GPS trucking (Example)

[PP3: Waste Pickers' Survey]

	
Kick-off workshop for the Waste Pickers (WPs) Survey	Current situation of Cell-1 of the Bouffa landfill site
	
Registration of WPs (Preparation of ID)	Interview survey of WPs

	
<p>Stock yard of recyclables picked up by WPs in the Bouffa landfill site</p>	<p>Example of food waste stocked for feeding pigs by WPs</p>

[PP4: Market Compost (Segregation training and promotion)]

	
<p>Announcement of waste amount and composition survey (WACS) at the central market</p>	<p>Sample collection for WACS by the vehicle owned by the central market</p>
	
<p>Measuring of sample waste</p>	<p>Sorting of sample waste by volunteers</p>

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on Solid Waste **Management** in Pacific Island Countries, Phase-2 (J-PRISM II)*
Port Vila, Vanuatu



Example of sample waste of WACS



Field visit by JOCV to observe WACS



Composting trial at the PVCC workshop



Meeting with shop keepers for launching market composting program at the central market



Promotion tool for market composting (1)



Promotion tool for market composting (2)



Announcement of separation collection for market composting (Miking)



Announcement of separation collection for market composting (Explanation to shop keepers)

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Port Vila, Vanuatu



Instruction of segregation at source to volunteers



Monitoring of discharging manner of green waste

[PP6: Promotion of Clean School Program]



Meeting with teachers on clean school program in the Centre-Ville school



Manufacturing of composter for school by PVCC staffs



Environmental education to the lower elementary school students



Field work to install a composter at yard of the Centre-Ville school



Composter installed in the school (1)



Composter installed in the school (2)

CHAPTER 1 INTRODUCTION

1.1 Background

As a capital city, Port-Vila is the economic and cultural center of the Republic of Vanuatu and the gateway to tourists visiting from abroad. PVCC drafted the Solid Waste Management Plan 2008-2017 in 2008 under the support of JICA, but it has not been approved. In the meantime, due to the financial collapse of the municipal council, several competent experienced persons in the field have left their jobs, equipment is not sufficiently maintained and half of them are out of order, so satisfactory waste disposal has not been done. So it is hard to say that PVCC's waste management have been done well.

In March 2018 the new mayor was appointed and the intention to improve waste management of PVCC was confirmed. As a result, the J-PRISM Phase II, which the Vanuatu Government has been implementing with JICA since March 2017, held a Joint Coordination Committee meeting on October 29, 2018, and the Output "SWM activities of PVCC is appropriately implemented and monitored in line with the SWM Plan" was newly added to the Project, and J-PRISM II decided to support PVCC to create the SWM Plan. PVCC and J-PRISM II will implement pilot projects to verify the feasibility of the technical method proposed in the draft SWM plan in the early 2020. Then the SWM Plan will be finalized in the middle term of 2020.

1.2 Objectives

Based on the requirement in line with the framework of the SWM plan, current situation and necessity of pilot project is organized as shown in Table 2.

Table 1 Objectives of the Pilot Projects

Framework of SWM Plan	Current Situation	Pilot Projects
1) Strengthening of Waste Collection Capacity and System	<ul style="list-style-type: none">• Baseline survey was done in 2019 for the pilot project.• Collection area boundary has to be clarified between PVCC and Shefa province.	#1-Waste Collection Improvement #2-Private Collection Monitoring
2) Extension and Rehabilitation of Bouffa Landfill Site	<ul style="list-style-type: none">• Bouffa is already full.• Waste pickers are not managed.	#3-Waste Pickers' Survey
3) Waste Minimization through Promotion of 3R (Reduce, Reuse and Recycle)	<ul style="list-style-type: none">• Market manager is supportive for market compost.• Community is interested in home composting but activities are not well-organized.	#4-Market Compost #5-Home Compost & Gardening
4) Public Awareness Raising	<ul style="list-style-type: none">• Clean school program is not promoted recently.•	#6-Promotion of Clean School Program #7- Awareness raising activities in National Environmental Week
5) Establishment of Waste Management Division	<ul style="list-style-type: none">• New organogram and job description were prepared by Ms. Mary and have already submitted to the council in October 2019.	<i>Not applicable</i>

6) Improvement of Operation and Maintenance System for Waste Collection Vehicle and Equipment	<ul style="list-style-type: none"> • Workshop mechanic was retired • Life span of waste collection vehicle is short (2-3 years on average, 5 years at the longest) 	<i>Not applicable</i>
7) Sustainable Financing for Appropriate Waste Management	<ul style="list-style-type: none"> • Tipping fee was reviewed. • Yellow Bag procurement contract was renewed until July 2022. 	#8-Yellow Bag Review Committee (Fermentation Survey of Bio-degradable Plastic)
8) Development of SWM Regulatory Principals	<ul style="list-style-type: none"> • By-law was approved by the council in October 2019. 	<i>Not applicable</i>

1.3 Outline of Pilot Projects

Outline of the Pilot Projects (PPs) is shown in Table 2.

Table 2 Outline of the Pilot Projects

Pilot Projects	Duration	Contents
1) Waste Collection Improvement	Jan - Jul 2020	<ul style="list-style-type: none"> • Station Collection (12 stations) • Special Collection for bulky waste (every Wednesday)
2) Private Collection Monitoring	Feb - Aug 2020	<ul style="list-style-type: none"> • GPS trucking record for monitoring annual collection report working together with DEPC • Monitoring the area of private collection working together with Shefa Province
3) Waste Pickers' Survey	Jan - Jun 2020	<ul style="list-style-type: none"> • Interview for Waste Pickers (WPs) to understand the current working and social condition of WPs • Awareness raising campaign for Occupational Safety and Health and announcement of the new registration system.
4) Market Compost (Segregation training and promotion)	Jan - Mar 2020	<ul style="list-style-type: none"> • Training for source segregation of organic and non-organic for the central market staffs and waste collection drivers. • Segregation promoter will instruct for a month
5) Home Compost and Gardening	Jun - Aug 2020	<ul style="list-style-type: none"> • Training by community practitioner on home compost and gardening. • Wind-dry method to reduce the water content of organic waste could be tried at household who cannot produce home compost due to the limitation of land-use.
6) Promotion of Clean School Program	Feb - Mar 2020	<ul style="list-style-type: none"> • Group collection of materials • Composting in school
7) Awareness raising activities in National Environmental Week	May – Aug 2020	<ul style="list-style-type: none"> • Bulky waste reuse program • Illustration contest for SWM plan cover page • Exhibition of information disclosure • Promotion of clean-up by short movie
8) Yellow Bag Review Committee	Jun – Sep 2020	<ul style="list-style-type: none"> • Replacement of plastic bags into bio-degradable or biomass plastic for sustainable environment • Fermentation survey of bio-degradable plastic at Bouffa to verify the usability of bio-degradable plastic for composting (target: food waste discharged from restaurant)

Source: JICA Expert Team (JET)

1.4 Role and Responsibility

Role and responsibility of the Pilot Projects are shown in Table 3 and stakeholders' list is shown in Table 4.

Table 3 Role and Responsibility of the Pilot Projects

Pilot Projects	PVCC	Ward Secretary	Community	DEPC	Shefa Province	J-PRISM II*	Others
1) Waste Collection Improvement	Leader ✓	✓	✓			✓	
2) Private Collection Monitoring	✓	✓		Leader ✓	✓	✓	
3) Waste Pickers' Survey	Leader ✓					✓	
4) Market Compost	Leader ✓			✓		✓	Central Market/ DARD*
5) Home Compost and Gardening	Leader ✓	✓	✓			✓	
6) Promotion of Clean School Program	Leader ✓	✓		✓		✓	MOET
7) Awareness raising activities in National Environmental Week	Leader ✓	✓	✓	✓		✓	
8) Yellow Bag Review Committee	Leader ✓					✓	

[Legend] DARD: Department of Agriculture and Rural Development, MOET: Ministry of Education and Training

* Mary would be hired to fill out the gap month of J-PRISM II.

Source: JICA Expert Team (JET)

Table 4 Stakeholders' list of the Pilot Projects

No.	Name	Organization/Position	Pilot Project
1	Ms. Ionie Bolenga	DEPC / Principal Waste Management and Pollution Control Officer	#2
2	Mr. Rontexstar Mogeror	DEPC / Pollution Control Officer & Acting Principle Waste Management and Pollution Control Officer	#2
3	Mr. Antonie Ravo	Department of Agriculture and Rural Development (DARD)/ Director (aravo@vanuatu.gov.vu)	#4, #5
4	Ms. Gwenneth N Tari	Department of Agriculture and Rural Development (DARD)/ Market Info Officer (gntari@vanuatu.gov.vu)	#4, #5
5	Mr. Mwetu Serge Sandy	PVCC / Waste Management Officer & Acting Supervisor of Waste Collection, Town Planning Division	#1, #2, #3, #4, #5, #6, #7, #8
6	Ms. Rebecca Vuta	PVCC / Environmental Health Officer, Town Planning Division	#1, #2, #3, #4, #5, #6, #7, #8
7	Ms. Linda Hango	PVCC/ Market Manager (7751315, lhango@vanuatu.gov.vu)	#4
8	Mr. Sethy Melenamu	PVCC / Market Assistant (7751595)	#4
9	Mr. Berry George	PVCC/ Landfill Unit, Town Planning Division	#3
10	Mr. Marie Natonga	PVCC/ Yellow Bag Collection Unit, Town Planning Division	#1, #2, #5
11	Mr. Esau Samson	PVCC / Waste Collection Unit	#1
12	Ms. Florence Tamara	PVCC / Southern Ward Secretary (7751596)	#1, #2, #5
13	Mr. Fred Ruben Pakoa	PVCC / Central Ward Secretary (7751593)	#1, #2, #5

No.	Name	Organization/Position	Pilot Project
14	Ms. Annie Edward	PVCC / Northern Ward Secretary (7751598)	#1, #2, #5
15	Mr. Ruth Samson	PVCC / Anamburu-Melcoffee-Malapoa Ward Secretary (7751602)	#1, #2, #5
16	Henry Hul	Home compost and gardening teacher/ Northern ward (5209992)	#5
17	Mr. Junji Anai	J-PRISM / JICA Expert	#1, #2, #3, #4, #5, #6, #7, #8
18	Ms. Rikae Kodani	J-PRISM / JICA Expert (5694922)	#1, #2, #3, #4, #5, #6, #7, #8

1.5 Schedule

The schedule of the survey is shown as Table 5.

Table 5 Timeline of the Survey

Activity \ Schedule	2020								
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1. Waste Collection Improvement									
2. Private Collection Monitoring									
3. Waste Pickers' Survey									
4. Market Compost (Segregation training and promotion)									
5. Home Compost and Gardening									
6. Promotion of Clean School Program									
7. Awareness raising activities in National Environmental Week									
8. Yellow Bag Review Committee									
9. Reporting/Reflecting to SWM plan									

Source: JICA Expert team (JET)

CHAPTER 2 PROGRESS OF PILOT PROJECTS

2.1 Summary of Pilot Projects Progress

Progress of PPs is shown in Table 6.


Table 6 Progress of the Pilot Projects

Pilot Projects	Progress	
1) Waste Collection Improvement	On-going	<ul style="list-style-type: none"> Garbage stations are ready to install. Community meeting was held in the Southern ward for installation of garbage stations. Station collection will start after the election. [Please see APPENDIX-1]
2) Private Collection Monitoring	On-going	<ul style="list-style-type: none"> Kick-off workshop with Private Waste Operators (PWOs) was held by DEPC GPS trucking survey was conducted targeting to 3 companies (5 vehicles) for a week.
3) Waste Pickers' Survey	On-going	<ul style="list-style-type: none"> Kick-off workshop with WPs to improve OSH was held. Interview survey for the community chiefs (2) and representatives of WPs (4) was conducted. Registration of WPs to make a list for OSH training was started. [Please see attachment-1]
4) Market Compost (Segregation training and promotion)	On-going	<ul style="list-style-type: none"> Waste Amount and Composition Survey (WACS) was conducted as a baseline survey. Awareness raising campaign was implemented for promotion of market composting for two weeks in March 2020. Promotion tools (Short movie, Poster and Leaflets) were prepared and distributed to shops and restaurants at the Central market. Temporary composting yard was developed. Technical advice was provided by JET. [Please see attachment-2]
5) Home Compost and Gardening	Not yet started	<ul style="list-style-type: none"> There is no progress on this activity yet. Workshops will be held after election.
6) Promotion of Clean School Program	On-going	<ul style="list-style-type: none"> Environmental education to the lower elementary school students and field work to install a composter at yard of the Centre-Ville school were implemented as a model case of the Clean School Program in Vanuatu.
7) Awareness raising activities in National Environmental Week	Not yet started	<ul style="list-style-type: none"> There is no progress on this activity yet. Preparation will be started before the National Environment Week (around 5th June)
8) Yellow Bag Review Committee	Not yet started	<ul style="list-style-type: none"> Based on the MOU between PVCC and Shefa province, financial data analysis will be conducted to find a solution of issues related to a gate fee and pre-paid bag income. [Please see attachment-3]


Source: JICA Expert Team (JET)

2.2 Pilot Project #1 - Waste Collection Improvement

1) Station Collection

<p>[Outline]</p> <p>Uncollected yellow plastic bags are observed during the survey visit. PVCC and community identified total 12 points (2 in the anamburu ward, 3 in the freshwota ward, 3 in the central ward and 4 in the southern ward) where it is required to shift to the station collection instead of door to door collection due to the bad road condition. The station collection will be applied after the GSP trucking survey is conducted in September 2020.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • Garbage stations are ready to install. • Community meeting was held in the Southern ward for installation of garbage stations. • Station collection will start after the election. 	


2) Special Collection for bulky waste

<p>[Outline]</p> <p>Bulky waste is remaining in a community. There is no official collection service provided by PVCC and community has to bear the cost for disposal of bulky waste. To avoid illegal dumping, PVCC offers a special collection for the bulky waste in the afternoon of every Wednesday.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • There is no progress on this activity yet. 	


☞ Please see APPENDIX-1 for the preliminary activity report of waste collection improvement..

2.3 Pilot Project #2 - Private Collection Monitoring

1) GPS Trucking for Shefa Contractors


<p>[Outline]</p> <p>Shefa province contracts out the waste collection service for seven private waste collection companies. GPS trucking survey will be conducted for a week in each.</p> <p>Based on the monitoring results, PVCC and Shefa province will give an instruction for the private companies and promote the awareness raising campaign for community on waste collection schedule and responsibility.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • Kick-off workshop with Private Waste Operators (PWOs) was held by DEPC • GPS trucking survey was conducted targeting to 3 companies (5 vehicles) for a week. 	

2) Compliance of annual collection report of private waste management company


<p>[Outline]</p> <p>An annual report is an obligation for private waste operators and GPS trucking record could be an efficient method for DEPC to monitor the private waste operators. Survey has to be done by every July to assess the eligibility of renewal of license.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • Announcement was sent from DEPC written in the letter and via SNS message. 	

2.4 Pilot Project #3 – Waste Pickers’ Survey

1) Baseline Survey of the Waste Pickers (WPs)

<p>[Outline]</p> <p>The baseline survey was conducted to understand the basic information of WPs and material recovery by WPs to improve the Occupational Safety and Health (OSH) and update the waste flow. These information will be referred to develop the future plan of Bouffa landfill site.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • Kick-off workshop with WPs to improve OSH was held. • Interview survey for the community chiefs (2) and representatives of WPs (4) was conducted. 	


2) Training of the Occupational Safety and Health (OSH) and announcement of the new registration system

<p>[Outline]</p> <p>Currently there is no official information of WPs. PVCC will establish a WPs committee and WPs' registration system to improve OSH with regular training and communication.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • Registration of WPs to make a list for OSH training was started. • Total 125 etas community people registered to this system. Most people registered to go through the Bouffa landfill site. 25 active WPs to engage recycling work at Buffa was confirmed. 	

☞ Please see Attachment 1-1, 1-2 and 1-3 for detailed information.


2.5 Pilot Project #4 - Market Compost

1) Baseline Survey on Market Compost


<p>[Outline]</p> <p>Waste audit for a week will be conducted to grasp the waste amount and composition discharged from the central market. Based on the survey result, partnership of composting will be discussed and composting system is determined.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • Waste Amount and Composition Survey (WACS) was conducted as a baseline survey. • Preliminary report of WACS results are given in Attachment-2. 	

☞ Please see Attachment-2 for detailed information.

2) Training for source segregation of organic and non-organic


<p>[Outline]</p> <p>In consideration of lessons learnt by the previous pilot project in J-PRISM phase 1, segregation promoter will be hired and instruct organic and non-organic waste to shop owners and cleaners in the central market for a month. Market staffs will be trained by JET to take over the role of segregation promoter.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • Awareness raising campaign was implemented for promotion of market composting for two weeks in March 2020. Promotion tools (Short movie, Poster and Leaflets) were prepared and distributed to shops and restaurants at the Central market. • Temporary composting yard was developed. Technical advice was provided by JET. 	

3) Verify usability of bio-degradable plastic bag for composting


<p>[Outline]</p> <p>Food waste discharged from restaurant is a potential target for the trial of bio-degradable plastic bag collection. Small-scale trial of compost in bio-degradable plastic bags will be conducted at Bouffa landfill site.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • There is no progress on this activity yet. 	

2.6 Pilot Project #5 – Home Compost and Gardening

1) Community Workshop for Promotion of Home Compost


<p>[Outline]</p> <p>Community practitioner is determined during the community consultation. He and DARD will give a lecture of home compost and backyard gardening in a community. Ward secretary of each ward will arrange the workshop (three times in each). Targets of each workshop is 10-20 households. Monitoring survey is supposed to be conducted after a month.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> • There is no progress on this activity yet. Workshops will be held after election. 	

2.7 Pilot Project #6 - Promotion of Clean School Program


<p>[Outline]</p> <p>Group collection of recyclables (Aluminum cans etc.) will be implemented in schools. On-site compost could be promoted in collaboration with a science club in a school. DEPC and LMC could be a supporter on this activity through Output 1 of J-PRISM II. Details will be discussed in the early next year.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> Environmental education to the lower elementary school students and field work to install a composter at yard of the Centre-Ville school were implemented as a model case of the Clean School Program in Vanuatu. 	

2.8 Pilot Project #7 - Awareness raising activities in National

Environmental Week

<p>[Outline]</p> <p>40 years anniversary of Vanuatu independence will be celebrated next year. On that occasion, PVCC and J-PRISM II will implement an illustration contest for the cover page of the SWM plan. Illustrations will be utilized as a decollation of awareness raising event.</p>	
<p>[Progress]</p> <ul style="list-style-type: none"> There is no progress on this activity yet. Preparation will be started before the National Environment Week (around 5th June) 	

2.9 Pilot Project #8 - Yellow Bag Review Committee

<p>[Outline]</p> <p>Au Bon Marche is supportive for reviewing the specification of Yellow Garbage Bags. Tentative targets of comparison analysis are size of plastic bag, thickness and material such as bio-degradable plastic and biomass plastic. Current procurement contract will continue until July 2022 and discussion could be continued for more than a year. Reviewing process and schedule will be discussed during the piloting.</p>	
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[Progress]

- Based on the MOU between PVCC and Shefa province, financial data analysis will be conducted to find a solution of issues related to a gate fee and pre-paid bag income.






☞ Please see Attachment-3 for detailed information.

CHAPTER 3 DATA ANALYSIS/OBSERVATION

The results of the pilot projects will be reflected to the Second Draft of SWM plan in the fourth quarter of 2020.

Attachment 1-1

Meeting Notice to Private Waste Operators on Compliance Audit

<p>DEPARTMENT OF ENVIRONMENTAL PROTECTION AND CONSERVATION</p> <p>Private Mail Bag 9063 Port Vila REPUBLIC OF VANUATU</p>	 <p>DEPARTMENT OF ENVIRONMENTAL PROTECTION & CONSERVATION</p>	<p>BUREAU DE LA PROTECTION DE L'ENVIRONNEMENT ET LA CONSERVATION</p> <p>Sac Postage Privé 9063 Port Vila REPUBLIQUE DE VANUATU</p>
<p>Tel: (678) 5333830/25302/33430</p>		
<p>17th January 2020</p>		
<p>TO WHOM IT MAY CONSERN;</p>		
<p>All Private Waste Operators – Waste Collectors</p>		
<p>Subject: <u>Meeting Notice for Compliance Audit in line with the Waste Management Act No.24 of 2014</u></p>		
<p>The Department of Environmental Protection and Conservation (DEPC) appreciates continued support from private waste operators to keep Vanuatu clean. As you may know, the private waste operators who were granted a license under the Waste Management Act No.24 of 2014 have an obligation to provide all information, statistics and copies of records relating to any waste operation that is required to be provided by the Director of the DEPC from time to time.</p>		
<p>A designated waste management operator has to prepare reports in accordance with the Section 33 of the Act, maintain statistical records relevant to the management of waste in their waste service area and assist the Director to conduct annual audits of waste generation and disposal.</p>		
<p>Currently, for 2019, majority of PWO Licenses were not renewed as per the agreed renewal date as stated in the Licenses. As such, the Department would like to emphasize that from this year, 2020, Non –compliance to PWO license renewals including new license applications will result in the Department imposing penalty fines to those operating with an expired license and also those operating without a license.</p>		
<p>A person to whom a written request has been made under the Section 17 of the Act who refuses or fails to comply with the request, is guilty of an offence punishable on conviction to a fine not exceeding VT100,000.</p>		
<p>Please notice that in a worst-case scenario, the Director may suspend a license if the license holder has failed to comply with a condition of the license or may revoke a license if the license holder has been convicted of any offence against the Act in accordance with the Section 15 of the Act. Thank you for your understanding and cooperation</p>		
		
		

DEPARTMENT OF
ENVIRONMENTAL PROTECTION
AND CONSERVATION

Private Mail Bag 9063
Port Vila
REPUBLIC OF VANUATU



BUREAU DE LA PROTECTION DE
L'ENVIRONNEMENT ET LA
CONSERVATION

Sac Postage Privé 9063
Port Vila
REPUBLIQUE DE VANUATU

Tel: (678) 5333830/25302/33430

Therefore, the Director hereby informs to all private waste operators that the DEPC will implement the compliance audit to every private waste operator with the support of the Port Vila Municipal Council (PVMC), the Shefa Province and J-PRISM II under JICA. An audit will be conducted for a week to each license holder during the period from February to March 2020.

For further information, please attend a meeting **10:00 – 11:00 am on Friday 24th of January at the meeting room of the DEPC**. Otherwise, the officer of the DEPC will contact individually for arranging audit's schedule. We would be glad to answer any questions you may have and provide necessary clarifications where needed. Kindly send in your response by **23rd January 2020** to **Ms. Ionie Bolenga**, Principal Waste Management and Pollution Control Officer, DEPC by emailing at ibolenga@vanuatu.gov.vu or by calling **33430**.

Yours faithfully,

Mrs. Donna Kalfatak,
Director, Department of Environmental Protection and Conservation

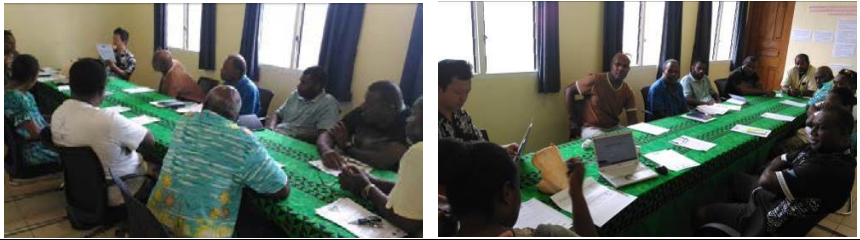


CC: Mr. Peter Sakita, Town Clerk, Port Vila Municipal Council
Mr. Ben Tabi, Acting Secretary General, Shefa Province
Mr. Naoki Takechi, Resident Representative, Japan International Cooperation Agency
Vanuatu Office



Attachment 1-2

Minutes of Meeting: Private Waste Operator's workshop

Minutes of Meeting	
Meeting Title	Private Waste Operators (PWO) Workshop
Date and Time	9:00am - 10:30am, Tuesday 28 th January, 2020
Venue	DEPC conference room
Participants	DEPC, Shefa province and 7 PWOs (Please see the attachment-2)
Agenda	<ul style="list-style-type: none"> Announcement of compliance audit in line with the Waste Management Act No. 24 of 2014
Handout	<ul style="list-style-type: none"> Meeting Notice Application form for the private waste operator's license
Photo	
Decision <ol style="list-style-type: none"> Every PWO has to apply or renew their license by March 2020 Every PWO has to put a sticker on a front glass of waste collection vehicle. Quarterly meeting will be held instead of quarterly report from PWO. Kick-off of the GPS trucking survey will be held at 17:00 on Sunday 2nd February, 2020. 	
Discussion <ul style="list-style-type: none"> Ionie explained that no PWO renews their license in 2019, which could cause serious consequence such as charging fines or suspending a license. Ionie requested to the PWOs to obtain or renew a license every year without any delay. Josiah, a lady from Express Rubbish Removers, expressed her opinion that a PWO collects garbage inside the boundary of Port Vila Municipal based on a demand of community, which indicated that waste collection service provided by PVMC was not well implemented. She also said that she had requested that PVMC should carry out a raising awareness campaign in peri-urban area where residents use yellow plastic bags but nothing happened yet. Owen, Shefa province, made a complaint against the 4% increase of gate fee decided by PVMC without any consultation for Shefa province and PWOs. He requested a continuous discussion on this matter between PVMC and Shefa province. Rikae recommended that DEPC should be included in that discussion as a supervising agency. 	

- Roro, IRC, explained that the road condition in Shefa province is bad compared with one in town. He also agreed that it was important to build a proper communication channel between PVMC and Shefa province.
- Ionie delivered the application form for renewal of PWO license. She also explained that without a stacker, no PWO would be allowed to operate their business after March 2020.
- Rikae explained about the plan of GPS trucking survey. PWO agreed that a kick-off meeting for the survey would be held at 17:00 on Sunday 2nd February, 2020 in consideration of waste collection day contracted by Shefa (Monday and on Friday). PWOs will turn off the GPS device by themselves when they use a vehicle for another purpose other than waste collection.

(end)

*Japanese Technical Cooperation Project for Promotion of Regional Initiative
on Solid Waste Management in Pacific Island Countries, Phase-2 (J-PRISM II)
Port Vila, Vanuatu*

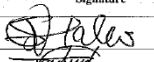
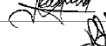
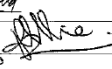
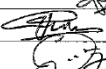


Attachment: Participants List

**Attendance List of
Private Waste Operator (PWO) Workshop**

Date: Wednesday, 28th January, 2020

Time: 9:00 am – 10:00 am

Venue: DEPC conference room

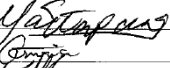

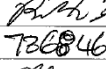
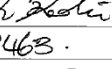
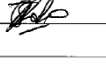

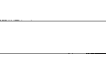
No.	Name	Organization	Position	Signature
1	NORMAN TALES	PANGO GREEN F	MEMBER	
2	JEANNOU. TETUKU	PHYSICAL PLANNING UNIT	WASTE MANAGEMENT OFFICER	
3	RONNIE CHILLIA	RONNY'S RUBBISH REMOVAL	MEMBER	
4	OWEN J SISE	Shapa Prov Govt Council	Property Tax Officer	
5	Kentaro Fujitani	"	Waste management Assistant	
6	JOSIAH RUSSEL	EXPRESS RUBBISH REMOVALS	ADMIN. officer	
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				

**Attendance List of
Private Waste Operator (PWO) Workshop**

Date: Wednesday, 28th January, 2020

Time: 9:00 am – 10:00 am

Venue: DEPC conference room

No.	Name	Organization	Position	Signature
1	HOAN KALTAP ANH	PANGO green zone	Comm. tee	
2	ANG KALTAKEL	Eratar Village	5732263	
3	KATKANA JAMES	tanaliu	5944237	
4	NEIL ROY	BEVERLY HILLS	Waste collector.	
5	Rikae Kodani	J-PRISM II	JICA Expert	
6	JOSIAH RUSSEL	EXPRESS RUBBISH REMOVALS	ADMINISTRATION	
7	RORA SAMBA	MELE-VILLAGE	DRIVER- I.M.C. TRUCK RUBBISH COLLECTION	
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				

Attachment 2-1

22nd November 2019

PVCC/J-PRISM-II

Waste Pickers Survey Plan at the Bouffa Landfill Site

1. Background

Waste Pickers (WPs) are active at the Bouffa landfill in Etas. Some of them are working with NGOs and make a living by waste picking. Port Vila Municipal Council (PVCC) learns from the good practice in Samoa and decide to dedicate the improvement of management of WPs, including the improvement of working conditions of WPs with necessary Personal Protective Equipment (PPE) and providing training of the Occupational Safety and Health (OSH). There is no official record of WPs as yet. Therefore PVCC and J-PRISM II will conduct a WPs survey and promote awareness campaign as a pilot project for the SWM plan 2021-2030.

2. Objective

The main objectives are as follows;

- To collect the basic information of WPs (Number of WPs (male, female and children), all name of leaders, number of groups, location etc.) for establishing a WPs committee and WPs' registration system to improve Occupational Safety and Health (OSH) with regular training and communication by PVCC.
- To collect the basic information of material recovery by WPs (Type and amount of recyclables collected by WPs) for updating a waste flow.
- To understand health status, working environment, and social and financial status (Health status of WPs, willingness to work at Bouffa landfill site, monthly income by waste picking) for development of the future plan.

3. Contents of the Survey

3.1. Determine the current conditions of the WPs at Bouffa landfill site

Information shall be collected at the WPs working site in and around the landfill site. The required information shall include:

- Number, gender, age composition, residence locations and ethnic backgrounds, spoken language, health status, duration of staying, origin of the village

- Groupings of the waste pickers within the site, and the leadership and social structure of these groups internally as well as in relation to other groups
- Number of WPs living inside Bouffa
- Working conditions; such as working days and hours, types of materials collected, system of selling these materials, incomes from the work, and other work such as piggeries, farm etc.
- Health conditions; such as work injuries, health problems from continuous open burning, malnutrition, any addictions, available health facilities, etc.
- Education conditions; such as illiteracy rates, education levels, available educational facilities, etc.
- Dwelling conditions; such as type of dwelling, size, ownership status, formal dwelling, location, water supply, sewage condition etc.
- Social conditions; building a family, security concerns, feeling of stigma of this work type, etc.

3.2 Needs of the Waste Pickers

It is necessary to clarify the desires of the WPs as to whether they want to continue waste picking, prefer to work in other sectors, and their needs for education, health and recycling facilities, as well as others. The required information shall include:

- Desire to continue to work in waste picking
- Interest to develop other skills and shift to other jobs
- Desire to improve dwelling and living location conditions
- Desire to improve income levels
- Others (Interest of recycling, composting, piggery, etc.)

3.3 Potential Roles of Waste Pickers in the Bouffa Landfill Site

The waste pickers have contributed to SWM through their active role in the informal recycling sector. And recycling has been an important source of income for them. The SWM plan includes establishing a new intermediate treatment Facility (ITF), such as a composting facility, at the Bouffa landfill site, which create new jobs in relation to the recycling, and some of which may be filled by the WPs, after giving them the proper training. The Container Deposit Scheme (CDS), scheduled to be run from July 2021, is also the biggest opportunity to create new jobs for waste segregation and recycling. Accordingly, the following information needs to be collected to identify the WP's potential contribution to the future SWM stream as well as development of the social safeguards plan at Bouffa landfill area.

- Desire to continue to work in waste picking within a controlled environment and under the management of PVCC
- Desire to train for, and work in the jobs that will be created mainly at the landfill site or CDS

collection points in town.

- Desire of engagement of other waste management activities such as segregation work, compost, etc.

3.4 Awareness for WPs

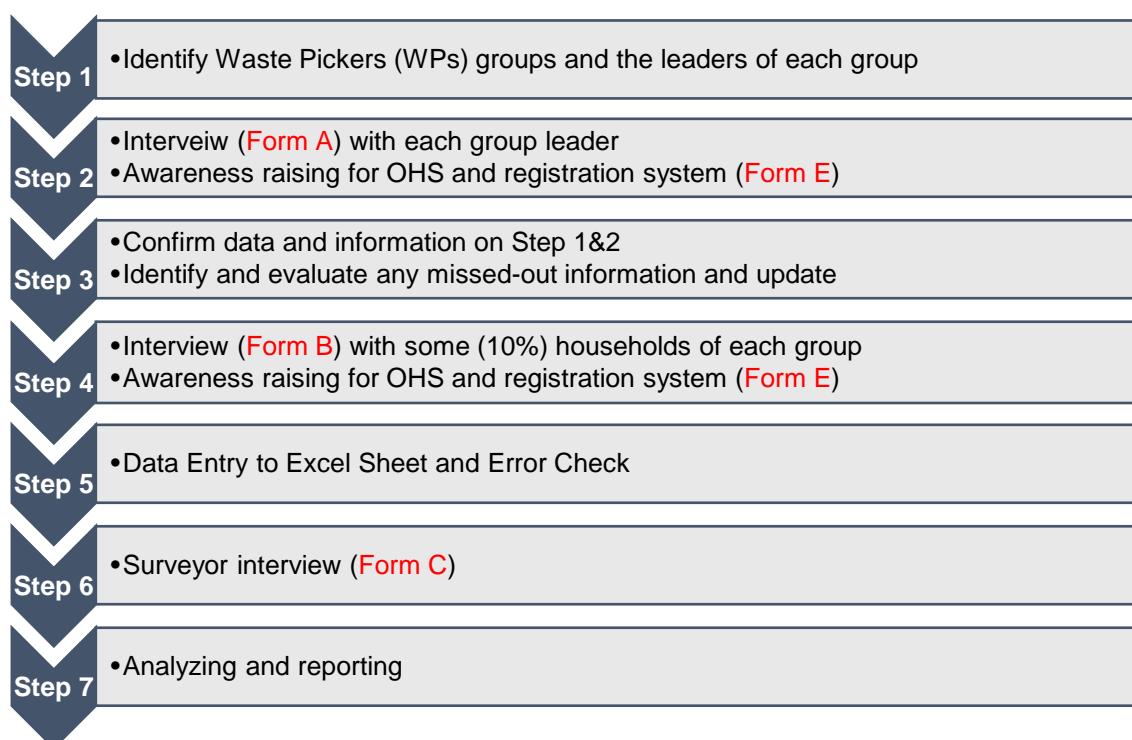
To inform the registration system for waste picking mainly to improve OHS and to protect women and children (Need to develop one visible material), awareness raising will be also promoted. (Develop awareness responding sheet; Form E)

4. Survey Implementation Methodology

4.1 Implementation Flow

The survey shall be implemented based on interview sheets (draft sheets included in Attachment).

The flow of the work is shown in the following figure.



The activities to be implemented for each step are briefly described hereafter.

<u>Step 1</u>	<ul style="list-style-type: none"> • A preliminary study must be implemented by PVCC prior to the actual survey. This survey will confirm the exact population and settlements in the area of Boufa landfill site (45ha) in Etas. • The leaders of groups shall be confirmed and the groups' locations accurately identified on the map.
<u>Step 2</u>	<ul style="list-style-type: none"> • Need to confirm and check all questions of interview sheet (Form A) among

	<p>surveyors</p> <ul style="list-style-type: none"> • Need to confirm and check the awareness materials as well as awareness replying sheet (ARS) to surveyor • An interview shall be conducted with each group leader, using Interview Form A (attachment) followed by the awareness with ARS. • In addition, a list of each group member shall be provided by the group leader. The list shall categorize the members by household, gender and age. Also, the list shall show whether the household is within Bouffa landfill site or outside it.
<u>Step 3</u>	<ul style="list-style-type: none"> • Confirm data and information on Step 1 & 2 • Identify and evaluate any missed-out information and update
<u>Step 4</u>	<ul style="list-style-type: none"> • Need to confirm and check all questions of interview sheet (Form B) among surveyors • Need to confirm and check the awareness materials as well as awareness replying sheet (ARS) to surveyors • About 10% of the total households shall be selected from each list and the household head shall be interviewed, using Interview Form B (attachment). • The household head should be familiar with the conditions of all the household members in order to reply to the questions correctly.
<u>Step 5</u>	<ul style="list-style-type: none"> • The data collected from the interviews (both Forms A and B) and ARS (Form E) shall be input in the Excel files. • An error check shall be made to identify any inputting or interview related errors. Identified errors shall be corrected by first referring to the interview sheet, or if the error still is there, then returning to the Leader (in case of Form A) or the Household Leader (Form B) to confirm the data.
<u>Step 6</u>	<ul style="list-style-type: none"> • Form C for surveyors
<u>Step 7</u>	<ul style="list-style-type: none"> • Analysis of the data shall be made and the report prepared (Form D).

4.2 Implementation Schedule

The Survey should be implemented for four weeks (7th February 2017 – 31st August). Proposed implementation schedule is as follows.

No. Week of	20 Jan.	27 Jan.	3 Feb.	10 Feb.
Step 1: Update the basic data	■■■■■			
Step 2: Interview Group leaders (Form A, E)		■■■■■		
Step 3: Confirmation of steps 1 & 2, Identification of missed information			■■■■■	
Step 4: Interview HH leaders (Form B, E)			■■■■■	
Step 5: Data input and error checking				■■■■■
Step 6: Surveyor interview ((Form C)				■■■■■
Step 7: Analysis and Reporting (Form D)				■■■■■

4.3 Requirements for implementation

The estimated requirements for the survey are as follows.

No	Requirement	Details/ Quantity	Cost Estimation
(1)	Human resources	A) Project manager; 1person x 27 days B) Bouffa LFS attendants C) Surveyors; 2 persons x 10 days D) Data input/ error check; 2 persons x 6 days	M. Sandy Andrew and Berry 1,500VT/person/day 1,500VT/person/day
(2)	Equipment	Questionnaire Stationaries (Board, Pencils and Pen)	About 5,000VT About 5,000VT
(3)	Vehicle	1 car x 10 days	Provided by PVCC
(4)	PCs	Volunteers will use their own laptop	-
(5)	Report	3 copies	-
TOTAL COST			

5. Attachments

Form A – Group Leader interview

Form B – Household head interview

Form C – Hired staff interview

Form D – Analysis and Reporting template

Form E - Awareness Responding Sheet (ARS)

Awareness Material

Form A – Group Leader Interview

Surveyor Name: _____	Date of Interview: _____
Interview Sheet number: _____	Input by: _____
A. Information of the Group Leader	
1 Name: _____	2 Age: _____
3 Group: _____	4 Gender: Male (____) / Female (____)
5 Number of Years in Etas: _____	6 Village of Origin: _____
B. Group information	
7 Confirm available list of members: ____ HHs, ____ Total members	
8 Where are the Group members living?	
8.1 Living inside Bouffa landfill area: _____ %	8.2 Living outside Bouffa, in: _____ %
8.3 Living outside Bouffa, in: _____ %	8.4 Living outside Bouffa, in: _____ %
9 What are the strongest common bonds of the Group Members? (If multiple replies please number in ascending order of priority)	
9.1 Origin is the same: <u>(Yes; 1,2,3,4,5) / (No)</u>	9.2 Same waste picking: <u>(Yes ____) / (No)</u>
9.3 Family ties: <u>(Yes ____) / (No)</u>	9.4 Religion is the same: <u>(Yes ____) / (No)</u>
9.5 Others (specify): _____	
10 What are the main functions of the Group? (If multiple replies please number in ascending order of priority)	
10.1 Support the member' waste picking activities: <u>(Yes; 1,2,3,4,5) / (No)</u>	
10.2 Social support to members: <u>(Yes ____) / (No)</u>	
10.3 Financial support to members: <u>(Yes ____) / (No)</u>	
10.4 Resolve differences amongst members: <u>(Yes ____) / (No)</u>	
10.5 Others (specify): _____	
11 Does the Group receive any support from outside organizations? <u>(Yes) / (No)</u> (If Yes; specify _____)	
12 Do you have any groups like women, church, or youth groups? (If Yes; specify _____)	
C. Group relationship with other Groups active in Bouffa landfill site?	
13 What is the total number of Groups active in Bouffa? _____	
14 How many other Group leaders do you know? _____	
15 What kind of relations do you have with other Group?	
15.1 No relations. (____)	15.2 Social meetings: (____)

15.3 Work relations. (____)	15.4 Security arrangements: (____)			
15.5 Others (specify): _____				
D. Issues at Bouffa for your Group Members				
16 What are the issues your Group members are mostly suffering from? (If multiple replies please number in ascending order of priority)				
16.1 Disputes with other Group during work. (Yes; 1,2,3,4,5) / (No)				
16.2 Increasing number of waste pickers. (Yes ____) / (No)				
16.3 Health problems associated with the work: (Yes ____) / (No)				
16.4 Services at or near Bouffa (water, health care, transport, education, etc.): (Yes ____) / (No)				
16.5 Work related issues (specify): _____				
16.6 Others (specify): _____				
17 What is your opinion on the following: (please select (a), (b), (c) or (d))				
17.1 Open burning	(a) Big problem	(b) Problem	(c) No problem	(c) Don't know
(Reason for burning if any)				
17.2 Security	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.3 Health Status	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.4 Education	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.5 Work opportunity	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.6 PVCC management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.7 Relation with other Group	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
Any other comments (if any)				

Form B – Household (HH) Head Interview

Surveyor Name: _____			Date of Interview: _____			
Interview Sheet number: _____			Input by: _____			
A. Information of the HH Head						
1 Name: _____			2 Age: _____			
3 Group: _____			4 Gender: Male (<input type="checkbox"/>) / Female (<input type="checkbox"/>)			
5 Number of Years in Bouffa: _____			6 Village of Origin: _____			
B. Household information						
7 Household Composition	Spouse		Other adults		Children	
	Age	Gender	Age	Gender	Age	Gender
8 Where are you living?						
8.1 Living inside Bouffa dump area: _____			8.2 Living outside Bouffa, in: _____			
9 Educational levels						
9.1 Number of HH adult members, with		(<input type="checkbox"/>) No education, (<input type="checkbox"/>) Primary, (<input type="checkbox"/>) Secondary, (<input type="checkbox"/>) Higher				
9.2 Number of HH children, with		(<input type="checkbox"/>) No education, (<input type="checkbox"/>) Primary, (<input type="checkbox"/>) Secondary, (<input type="checkbox"/>) Higher				
10 Type of Dwelling						
10.1 Type: (_____)			10.2 Area: (_____ m ²)			
10.3 Area; Formal (<input type="checkbox"/>), Informal (<input type="checkbox"/>)			10.4 Rented: (<input type="checkbox"/>) or Owned (<input type="checkbox"/>)			
10.5 Status of Water supply: (_____)			10.6 Status of Toilet: (_____)			
C Waste Picking Activity						
11 HH members working in waste picking: _____ Adults, _____ Children (If Yes; any safety equipment? _____)						
12 What waste items and amounts (in weight) are the HH picking per day?						
12.1 Aluminum (_____)		12.2 Tin cans (_____)		12.3 Plastics (_____)		
12.4 Food waste (_____)		12.5 Others (_____)		12.6 Others (_____)		
13 How do you sell the collected recyclable items?						
13.1 Take to the buyer (<input type="checkbox"/>)			13.2 The buyer comes to Bouffa. (<input type="checkbox"/>)			

Name of the buyer (_____)		Name of the buyer (_____)		
13.3 Arranged by other waste pickers (____)		13.4 Collection truck drivers. (____)		
13.5 Total HH incomes from the waste picking per month? _____ Vatu/ month				
14 Livestock				
14.1 Do you have a livestock? (____)				
If yes, what kind of livestock (_____), and how many (_____)				
If yes, are you selling it? (____)				
If yes, how much (_____), and how do you sell it (_____)				
15. Are any HH members working on other jobs than waste picking?				
15.1 No (____)		15.2 Yes, Adults (____), Children (____)		
15.3 Total HH incomes from waste picking activities per month? _____ Vatu/ month				
15.4 Total HH incomes from other jobs per month? _____ Vatu/ month				
D. Issues at Bouffa for your HH Members				
16 What are the issues your HH members are mostly suffering from? (If multiple replies please number in ascending order of priority)				
16.1 Disputes with other waste pickers during work. <u>(Yes; 1,2,3,4,5) / (No)</u>				
16.2 Increasing number of waste pickers. <u>(Yes) / (No)</u>				
16.3 Health problems associated with the work: <u>(Yes) / (No)</u> ; If Yes, specify:				
(a) Respiratory (____), (b) Malnutrition (____), (c) Addiction (____), (d) Others (_____)				
16.4 Services at or near Bouffa (water, health care, transport, education, etc.): <u>(Yes) / (No)</u>				
16.5 Work related issues (specify): _____				
16.6 Others (specify): _____				
17 What is your opinion on the following: (please select (a), (b), (c) or (d))				
17.1 Open burning	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.2 Security	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.3 Health Status	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.4 Education	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.5 Work opportunity	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.6 PVCC management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know

17.7 Relation with other Blocks	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
E. Future Desire				
18 Would you like to continue working in waste picking? Yes (____), No (____)				
19 Would you like the other HH members to continue waste picking? Yes (____), No (____)				
20 Are you interested in other job? No (____), Yes (specify, _____)				
21 What support do you need to change from waste picking to another job?				
21.1 Not interested to change. (____)		21.2 Financial support. (____)		
21.3 Training (____)		21.4 Job searching (____)		
22 Are you interested in working at the Bouffa Landfill?				
22.1 Not interested (____)		22.2 Interested in Composting (____)		
22.3 Interested in Recycling Facility (____)		22.4 Interested, as security or operator (____)		
22.5 Landfill security or spotter (____)		22.6 Others (please identify; _____)		
23 Any other comments (if any)				

Form C – Hired Surveyor Interview

Surveyor Name: _____		Date of Interview: _____		
Interview Sheet number: _____		Input by: _____		
A. Information of the Hired Staff				
1 Name: _____		2 Age: _____		
3 Group: _____		4 Gender: Male (<input type="checkbox"/>) / Female (<input type="checkbox"/>)		
5 Number of Years in Etas: _____		6 Village of Origin: _____		
7 Education: (<input type="checkbox"/>) No education, (<input type="checkbox"/>) Primary, (<input type="checkbox"/>) Secondary, (<input type="checkbox"/>) Higher				
8 Role at the site: _____				
9 Status in the Block: (<input type="checkbox"/>) Leader, (<input type="checkbox"/>) Leader group member, (<input type="checkbox"/>) Appointed by leader, (<input type="checkbox"/>) Others, <u>specify</u> _____				
B. Working Condition				
8.1 Equipment: _____		8.2 Working hours: _____ ~ _____ (<input type="checkbox"/> hrs)		
8.3 Any Difficulties: _____		8.4 Any Issues: _____		
8.5 Impression for WPs/Bouffa Landfill: _____				
C Workers' relationship				
13 How do you collaborate with other workers in Bouffa? _____				
14 Do you have a meeting with other workers in Bouffa? _____				
15 How often do you have contact with PVCC? _____ per week				
16 Do you have a meeting with Group leaders? (<input type="checkbox"/>) If yes, what topics (_____), and how often (_____ per week)				
D Issues at Bouffa for your work				
17 What is your opinion on the following: (please select (a), (b), (c) or (d))				
17.1 Open burning	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.2 Security	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.3 PVCC management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.4 Contractor management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.5 Waste Picker behavior	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know

Form E - Awareness Responding Sheet (ARS)

Date	Group #	Target for Awareness; Group leader or HH member (male, female, or child)	Responding

Awareness Material:

NOTICE from Waste Management Officer, PVCC

1. Registration (Occupational Safety and Health, Stop Children's work)

- A) Only registered persons can be involved in waste picking for resource recovery. PVCC will provide the Personal Protective Equipment (PPE) to such registered persons for the security reason.
- B) Involvement of children for waste picking shall be strictly banned.

Attachment 2-2

Results of Waste Pickers Survey at the Bouffa Landfill Site

Form A – Group Leader Interview (ANSWER: Chief NO.1)

Surveyor Name: Sannie Gerroe	Date of Interview: 1/01/2020
Interview Sheet number: _____	Input by: _____
A. Information of the Group Leader	
1 Name: [REDACTED]	2 Age: _50
3 Group: _families	4 Gender: _Male
5 Number of Years in Etas: _15 year	6 Village of Origin: _white sands
B. Group information	
7 Confirm available list of members: _8 HHs, _15 Total members	
8 Where are the Group members living? _Etas	
8.1 Living inside Bouffa landfill area: outside %	8.2 Living outside Bouffa, in: outside %
8.3 Living outside Bouffa, in: _____ %	8.4 Living outside Bouffa, in: _____ %
9 What are the strongest common bonds of the Group Members? (If multiple replies please number in ascending order of priority)	
9.1 Origin is the same: <u>(Yes; 1,2,3,4,5) / (No)</u>	9.2 Same waste picking: <u>(Yes) / (No)</u>
9.3 Family ties: <u>(Yes) / (No)</u>	9.4 Religion is the same: <u>(Yes) / (No)</u>
9.5 Others (specify): _____	
10 What are the main functions of the Group? (If multiple replies please number in ascending order of priority)	
10.1 Support the member' waste picking activities: <u>YES</u>	
10.2 Social support to members: <u>YES</u>	
10.3 Financial support to members: <u>YES</u>	
10.4 Resolve differences amongst members:	
10.5 Others (specify): _____	
11 Does the Group receive any support from outside organizations? YES (If Yes; specify sells them to get money to buy)	
12 Do you have any groups like women, church, or youth groups? (If Yes; specify Yes, because I am)	

C. Group relationship with other Groups active in Bouffa landfill site? No.				
13 What is the total number of Groups active in Bouffa? Families				
14 How many other Group leaders do you know? No. Group leader/ inter...				
15 What kind of relations do you have with other Group?				
15.1 No relations. (____)		15.2 Social meetings: (✓)		
15.3 Work relations. (✓)		15.4 Security arrangements: (✓)		
15.5 Others (specify): only families				
D. Issues at Bouffa for your Group Members				
16 What are the issues your Group members are mostly suffering from? (If multiple replies please number in ascending order of priority) Helps me to find money.				
16.1 Disputes with other Group during work. <u>No</u>				
16.2 Increasing number of waste pickers. <u>Yes</u>				
16.3 Health problems associated with the work: <u>Yes</u>				
16.4 Services at or near Bouffa Yes				
16.5 Work related issues (specify): water from the dirty Ice-box				
16.6 Others (specify): transport man power				
17 What is your opinion on the following: (please select (a), (b), (c) or (d))				
17.1 Open burning	(a) Big problem	(b) Problem	(c) No problem	(c) Don't know
(Reason for burning if any)				
17.2 Security	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.3 Health Status	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.4 Education	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.5 Work opportunity	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.6 PVMC management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.7 Relation with other Group	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
Any other comments (if any)				

Form A – Group Leader Interview (ANSWER: Chief NO.2)

Surveyor Name: Beviy	Date of Interview: 27/01/2020
Interview Sheet number: _____	Input by: _____
A. Information of the Group Leader	
1 Name: [REDACTED]	2 Age: _____
3 Group: _____	4 Gender: Male
5 Number of Years in Etas: 10	6 Village of Origin: _____
B. Group information	
7 Confirm available list of members: 20 HHs, ... Total members	
8 Where are the Group members living?	
8.1 Living inside Bouffa landfill area: %	8.2 Living outside Bouffa, in: %
8.3 Living outside Bouffa, in: _____%	8.4 Living outside Bouffa, in: _____%
9 What are the strongest common bonds of the Group Members? (If multiple replies please number in ascending order of priority)	
9.1 Origin is the same: Yes	9.2 Same waste picking: Yes
9.3 Family ties: Yes	9.4 Religion is the same: Yes
9.5 Others (specify): _____	
10 What are the main functions of the Group? (If multiple replies please number in ascending order of priority)	
10.1 Support the member' waste picking activities: YES	
10.2 Social support to members: YES	
10.3 Financial support to members: YES	
10.4 Resolve differences amongst members: YES	
10.5 Others (specify): _____	
11 Does the Group receive any support from outside organizations? YES (If Yes; specify World Vision, Oxfam Vanuatu)	
12 Do you have any groups like women, church, or youth groups? (If Yes; specify yes, woman and church)	
C. Group relationship with other Groups active in Bouffa landfill site?	
13 What is the total number of Groups active in Bouffa?	
14 How many other Group leaders do you know? Work with chiefs	
15 What kind of relations do you have with other Group?	
15.1 No relations. (✓)	15.2 Social meetings: (✓)
15.3 Work relations. ()	15.4 Security arrangements: ()

15.5 Others (specify):				
D. Issues at Bouffa for your Group Members				
16 What are the issues your Group members are mostly suffering from? (If multiple replies please number in ascending order of priority)				
16.1 Disputes with other Group during work. <u>No</u>				
16.2 Increasing number of waste pickers. <u>Yes</u>				
16.3 Health problems associated with the work: <u>Yes</u>				
16.4 Services at or near Bouffa Water : YES				
16.5 Work related issues (specify):				
16.6 Others (specify):				
17 What is your opinion on the following: (please select (a), (b), (c) or (d))				
17.1 Open burning	(a) Big problem	(b) Problem	(c) No problem	(c) Don't know
(Reason for burning if any)				
17.2 Security	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.3 Health Status	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.4 Education	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.5 Work opportunity	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.6 PVMC management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.7 Relation with other Group	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
Any other comments (if any)	<p>This will help us a lot and it is a first interview done here, but hope the ... come will be good.</p> <p>Please do help us with all the problem we tell.</p>			

Form B – Household (HH) Head Interview (ANSWER: WP NO.1)

Surveyor Name: Sannie George		Date of Interview: 31/01/2020				
Interview Sheet number:		Input by: _____				
A. Information of the HH Head						
1 Name: [REDACTED]		2 Age: 50				
3 Group: _____		4 Gender: Male				
5 Number of Years in Bouffa: 15		6 Village of Origin: white sands (tanna)				
B. Household information						
7 Household Composition	Spouse ACNESS		Other adults	Children		
	Age	Gender	Age	Gender	Age	Gender
	30	Female			29	M
					28	M
					27	M
					21	M
					20	M
					19	M
				3	M	
				3	M	
8 Where are you living? Etas						
8.1 Living inside Bouffa dump area: No			8.2 Living outside Bouffa, in: Outside			
9 Educational levels						
9.1 Number of HH adult members, with		() No education, (✓✓) Primary, () Secondary, () Higher				
9.2 Number of HH children, with		(✓✓) No education, (✓✓) Primary, (✓✓✓) Secondary, () Higher				
10 Type of Dwelling						
10.1 Type: (Build by myself)			10.2 Area: (____ m ²) 12m * 4m			
10.3 Area; Formal (✓), Informal ()			10.4 Rented: () or Owned (✓)			
10.5 Status of Water supply: (rain coota)			10.6 Status of Toilet: (Bush toliet)			
C Waste Picking Activity						
11 HH members working in waste picking: 2 Adults, No Children (If Yes; any safety equipment? No safty equipment)						
12 What waste items and amounts (in weight) are the HH picking per day?						
12.1 Aluminum (1 week)		12.2 Tin cans (For sell)		12.3 Plastics (exchange for Kaua)		

12.4 Food waste (For bigs)	12.5 Others (battner)	12.6 Others (copper)		
13 How do you sell the collected recyclable items?				
13.1 Take to the buyer () Name of the buyer (recycle coop)		13.2 The buyer comes to Bouffa. (✓) Name of the buyer (Tusker)		
13.3 Arranged by other waste pickers (No)		13.4 Collection truck drivers. (phone no)		
13.5 Total HH incomes from the waste picking per month? _____ Vatu/ month				
14 Livestock				
14.1 Do you have a livestock? (Yes) If yes, what kind of livestock (bigs), and how many (8 pigs) If yes, are you selling it? (Yes) If yes, how much (5,000), and how do you sell it (only during occasion)				
15. Are any HH members working on other jobs than waste picking?				
15.1 No (____)		15.2 Yes, Adults (✓), Children (____)		
15.3 Total HH incomes from waste picking activities per month? _80,000 Vatu/ month				
15.4 Total HH incomes from other jobs per month? 15,000 Vatu/ month				
D. Issues at Bouffa for your HH Members				
16 What are the issues your HH members are mostly suffering from? (If multiple replies please number in ascending order of priority)				
16.1 Disputes with other waste pickers during work. Yes				
16.2 Increasing number of waste pickers. Yes				
16.3 Health problems associated with the work: Yes				
(a) Respiratory (____), (b) Malnutrition (✓), (c) Addiction (✓), (d) Others (_____)				
16.4 Services at or near Bouffa No				
16.5 Work related issues (specify): bottle cut				
16.6 Others (specify): _____				
17 What is your opinion on the following: (please select (a), (b), (c) or (d))				
17.1 Open burning	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.2 Security	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.3 Health Status	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.4 Education	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know

17.5 Work opportunity	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.6 PVMC management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.7 Relation with other Blocks	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
E. Future Desire				
18 Would you like to continue working in waste picking? Yes (✓), No (____)				
19 Would you like the other HH members to continue waste picking? Yes (✓), No (____)				
20 Are you interested in other job? No (✓), Yes (specify, _____)				
21 What support do you need to change from waste picking to another job?				
21.1 Not interested to change. (____)		21.2 Financial support. (✓)		
21.3 Training (____)		21.4 Job searching (✓)		
22 Are you interested in working at the Bouffa Landfill?				
22.1 Not interested (____)		22.2 Interested in Composting (✓)		
22.3 Interested in Recycling Facility (✓)		22.4 Interested, as security or operator (____)		
22.5 Landfill security or spotter (✓)		22.6 Others (please identify; _____)		
23 Any other comments (if any) Chief wants to provide safety gears to the community. Thank you.				

Form B – Household (HH) Head Interview (ANSWER: WP NO.2)

Surveyor Name: Beviy George			Date of Interview: 29/01/2020			
Interview Sheet number: 1			Input by: _____			
A. Information of the HH Head						
1 Name: [REDACTED]			2 Age: 44			
3 Group: _____			4 Gender: Male			
5 Number of Years in Bouffa: 8			6 Village of Origin: mara lowa			
B. Household information						
7 Household Composition	Spouse Juddie		Other adults		Children 4	
	Age	Gender	Age	Gender	Age	Gender
	41	Female			21	M
					6	M
					16	F
					10	F
8 Where are you living?						
8.1 Living inside Bouffa dump area:			8.2 Living outside Bouffa, in: Banks community			
9 Educational levels						
9.1 Number of HH adult members, with 4		() No education, () Primary, (<input checked="" type="checkbox"/>) Secondary, () Higher				
9.2 Number of HH children, with 2		() No education, (<input checked="" type="checkbox"/>) Primary, () Secondary, () Higher				
10 Type of Dwelling						
10.1 Type: (Temporary house)			10.2 Area: (_____ m ²) 5MW * 4ML			
10.3 Area; Formal (), Informal (<input checked="" type="checkbox"/>)			10.4 Rented: (_____) or Owned (<input checked="" type="checkbox"/>)			
10.5 Status of Water supply: (rain water only)			10.6 Status of Toilet: (Bush toliet)			
C Waste Picking Activity						
11 HH members working in waste picking: 1 Adults, Children (If Yes; any safety equipment?)						
12 What waste items and amounts (in weight) are the HH picking per day?						
12.1 Aluminum (2-3Kg)		12.2 Tin cans (0)		12.3 Plastics (60 plastic pet bottles 20VT)		

12.4 Food waste (20Kg)	12.5 Others (cooper 10kg 200VT)	12.6 Others (
13 How do you sell the collected recyclable items?				
13.1 Take to the buyer () Name of the buyer (recycle coop)		13.2 The buyer comes to Bouffa. (✓) Name of the buyer (nalamals for plastic bottles)		
13.3 Arranged by other waste pickers ()		13.4 Collection truck drivers. (✓)		
13.5 Total HH incomes from the waste picking per month? 22,760VT Vatu/ month				
14 Livestock				
14.1 Do you have a livestock? (✓) If yes, what kind of livestock (chicken , and how many (more than 10) If yes, are you selling it? (No) If yes, how much (_), and how do you sell it (to local's)				
15. Are any HH members working on other jobs than waste picking?				
15.1 No (✓)		15.2 Yes, Adults (_), Children (_)		
15.3 Total HH incomes from waste picking activities per month? 20,000VT+security Vatu/ month				
15.4 Total HH incomes from other jobs per month? 15,000 Vatu/ month				
D. Issues at Bouffa for your HH Members				
16 What are the issues your HH members are mostly suffering from? (If multiple replies please number in ascending order of priority)				
16.1 Disputes with other waste pickers during work. No				
16.2 Increasing number of waste pickers. Yes				
16.3 Health problems associated with the work: Yes				
(a) Respiratory (✓), (b) Malnutrition (✓), (c) Addiction (_), (d) Others (_)				
16.4 Services at or near Bouffa education water, healthcare				
16.5 Work related issues (specify):				
16.6 Others (specify): _				
17 What is your opinion on the following: (please select (a), (b), (c) or (d))				
17.1 Open burning	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.2 Security	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.3 Health Status	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know

17.4 Education	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.5 Work opportunity	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.6 PVMC management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.7 Relation with other Blocks	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
E. Future Desire				
18 Would you like to continue working in waste picking? Yes (✓), No (____)				
19 Would you like the other HH members to continue waste picking? Yes (✓), No (____)				
20 Are you interested in other job? No (✓), Yes (specify, because I make money too here and only need a safety equipment)				
21 What support do you need to change from waste picking to another job?				
21.1 Not interested to change. (____)		21.2 Financial support. ()		
21.3 Training (✓)		21.4 Job searching (✓)		
22 Are you interested in working at the Bouffa Landfill?				
22.1 Not interested (____)		22.2 Interested in Composting (✓)		
22.3 Interested in Recycling Facility (✓)		22.4 Interested, as security or operator (✓)		
22.5 Landfill security or spotter (✓)		22.6 Others (please identify; _____)		
23 Any other comments (if any)				
<p>I worked here since I come here and learn a lot in knowing what is aluminum and cooper and steel. I work close with the PVMC staff and really want to continue with this job and also help out as a security and if possible to help ot join them in composting id job available :</p> <p>Thank you a lot for your support.</p>				

Form B – Household (HH) Head Interview (ANSWER: WP NO.3)

Surveyor Name: Jayson			Date of Interview: 30/01/2020			
Interview Sheet number:			Input by: _____			
A. Information of the HH Head						
1 Name: [REDACTED]			2 Age: 49			
3 Group: only families			4 Gender: Male			
5 Number of Years in Bouffa: 10 years			6 Village of Origin: Ambae			
B. Household information						
7 Household Composition Jacklyn Tilin Melani	Spouse		Other adults		Children	
	Age	Gender	Age	Gender	Age	Gender
	47	Female				
					14	F
					20	F
8 Where are you living?						
8.1 Living inside Bouffa dump area:			8.2 Living outside Bouffa, in: Etas			
9 Educational levels						
9.1 Number of HH adult members, with		() No education, (<input checked="" type="checkbox"/>) Primary, (<input checked="" type="checkbox"/>) Secondary, () Higher				
9.2 Number of HH children, with		() No education, () Primary, (<input checked="" type="checkbox"/>) Secondary, (<input checked="" type="checkbox"/>) Higher				
10 Type of Dwelling						
10.1 Type: (Congrit with roof)			10.2 Area: (8*6 m ²)			
10.3 Area; Formal (<input checked="" type="checkbox"/>), Informal ()			10.4 Rented: () or Owned (<input checked="" type="checkbox"/>)			
10.5 Status of Water supply: (No)			10.6 Status of Toilet: (Bush toliet)			
C Waste Picking Activity						
11 HH members working in waste picking: 1 Adults, 0 Children (If Yes; any safety equipment? NO)						
12 What waste items and amounts (in weight) are the HH picking per day?						
12.1 Aluminum ()		12.2 Tin cans ()		12.3 Plastics ()		
12.4 Food waste (4-5)		12.5 Others ()		12.6 Others ()		

13 How do you sell the collected recyclable items? No sell only for the R pigs				
13.1 Take to the buyer () Name of the buyer ()		13.2 The buyer comes to Bouffa. () Name of the buyer ()		
13.3 Arranged by other waste pickers ()		13.4 Collection truck drivers. ()		
13.5 Total HH incomes from the waste picking per month? Vatu/ month				
14 Livestock				
14.1 Do you have a livestock? (Yes) If yes, what kind of livestock (pig), and how many () If yes, are you selling it? (Yes) If yes, how much (5000 to 50,000), and how do you sell it (half a year)				
15. Are any HH members working on other jobs than waste picking?				
15.1 No (✓)		15.2 Yes, Adults (), Children (1)		
15.3 Total HH incomes from waste picking activities per month? 0 Vatu/ month				
15.4 Total HH incomes from other jobs per month? 15,500 (average) Vatu/ month				
D. Issues at Bouffa for your HH Members				
16 What are the issues your HH members are mostly suffering from? (If multiple replies please number in ascending order of priority) no problem				
16.1 Disputes with other waste pickers during work.				
16.2 Increasing number of waste pickers.				
16.3 Health problems associated with the work:				
(a) Respiratory (), (b) Malnutrition (), (c) Addiction (), (d) Others ()				
16.4 Services at or near Bouffa				
16.5 Work related issues (specify):				
16.6 Others (specify):				
17 What is your opinion on the following: (please select (a), (b), (c) or (d))				
17.1 Open burning	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.2 Security	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.3 Health Status	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.4 Education	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.5 Work opportunity	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know

17.6 PVMC management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.7 Relation with other Blocks	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
E. Future Desire				
18 Would you like to continue working in waste picking? Yes (✓), No (____)				
19 Would you like the other HH members to continue waste picking? Yes (✓), No (____)				
20 Are you interested in other job? No (✓), Yes (specify,)				
21 What support do you need to change from waste picking to another job?				
21.1 Not interested to change. (____)		21.2 Financial support. ()		
21.3 Training (✓)		21.4 Job searching (✓)		
22 Are you interested in working at the Bouffa Landfill?				
22.1 Not interested (____)		22.2 Interested in Composting (✓)		
22.3 Interested in Recycling Facility ()		22.4 Interested, as security or operator ()		
22.5 Landfill security or spotter ()		22.6 Others (please identify; _____)		
23 Any other comments (if any)				

Form B – Household (HH) Head Interview (ANSWER: WP NO.4)

Surveyor Name: Charlies			Date of Interview: 31/01/2020			
Interview Sheet number:			Input by: _____			
A. Information of the HH Head						
1 Name: [REDACTED]			2 Age: 26/12/1974			
3 Group: Family			4 Gender: Male			
5 Number of Years in Bouffa: 3 years			6 Village of Origin:			
B. Household information						
7 Household Composition	Spouse Juddie		Other adults		Children 4	
	Age	Gender	Age	Gender	Age	Gender
	02/07/1975	Female			3/06/1999	F
					2/03/1995	M
					11/10/2005	M
8 Where are you living?						
8.1 Living inside Bouffa dump area:			8.2 Living outside Bouffa, in: Etas			
9 Educational levels						
9.1 Number of HH adult members, with		() No education, (<input checked="" type="checkbox"/>) Primary, (<input checked="" type="checkbox"/>) Secondary, () Higher				
9.2 Number of HH children, with		() No education, () Primary, (<input checked="" type="checkbox"/>) Secondary, (<input checked="" type="checkbox"/>) Higher				
10 Type of Dwelling						
10.1 Type: ()			10.2 Area: (2*2m²)			
10.3 Area; Formal (<input checked="" type="checkbox"/>), Informal ()			10.4 Rented: () or Owned (<input checked="" type="checkbox"/>)			
10.5 Status of Water supply: (No)			10.6 Status of Toilet: (No)			
C Waste Picking Activity						
11 HH members working in waste picking: <input checked="" type="checkbox"/> Adults, Children (If Yes; any safety equipment? Only handclanb)						
12 What waste items and amounts (in weight) are the HH picking per day?						
12.1 Aluminum ()		12.2 Tin cans ()		12.3 Plastics ()		
12.4 Food waste ()		12.5 Others ()		12.6 Others ()		

13 How do you sell the collected recyclable items?				
13.1 Take to the buyer () Name of the buyer ()		13.2 The buyer comes to Bouffa. () Name of the buyer ()		
13.3 Arranged by other waste pickers ()		13.4 Collection truck drivers. ()		
13.5 Total HH incomes from the waste picking per month? Vatu/ month				
14 Livestock				
14.1 Do you have a livestock? () pick If yes, what kind of livestock (___), and how many (3) If yes, are you selling it? (yes) If yes, how much (___), and how do you sell it (25,000VT or 40,000VT)				
15. Are any HH members working on other jobs than waste picking?				
15.1 No ()		15.2 Yes, Adults (yes), Children (yes)		
15.3 Total HH incomes from waste picking activities per month? No Vatu/ month				
15.4 Total HH incomes from other jobs per month? 4000VT Vatu/ month				
D. Issues at Bouffa for your HH Members				
16 What are the issues your HH members are mostly suffering from? (If multiple replies please number in ascending order of priority)				
16.1 Disputes with other waste pickers during work.				
16.2 Increasing number of waste pickers.				
16.3 Health problems associated with the work:				
(a) Respiratory (, (b) Malnutrition (, (c) Addiction (), (d) Others (_____)				
16.4 Services at or near Bouffa				
16.5 Work related issues (specify):				
16.6 Others (specify): _Problem for the shoes				
17 What is your opinion on the following: (please select (a), (b), (c) or (d))				
17.1 Open burning	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.2 Security	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.3 Health Status	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.4 Education	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.5 Work opportunity	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know

17.6 PVMC management	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
17.7 Relation with other Blocks	(a) Big problem	(b) Problem	(c) No problem	(e) Don't know
E. Future Desire				
18 Would you like to continue working in waste picking? Yes (), No ()				
19 Would you like the other HH members to continue waste picking? Yes (), No ()				
20 Are you interested in other job? No (), Yes (specify, electrician)				
21 What support do you need to change from waste picking to another job?				
21.1 Not interested to change. ()		21.2 Financial support. ()		
21.3 Training ()		21.4 Job searching (✓)		
22 Are you interested in working at the Bouffa Landfill?				
22.1 Not interested ()		22.2 Interested in Composting (✓)		
22.3 Interested in Recycling Facility (✓)		22.4 Interested, as security or operator (✓)		
22.5 Landfill security or spotter (✓)		22.6 Others (please identify;)		
23 Any other comments (if any)				
<p>Yes, some time he picks up the aluminums.</p> <p>Every two weeks he sells his aluminums but aluminums 30VT per Kilo.</p> <p>Some time he get 3,000VT every two weeks.</p>				

Attachment 2-3

Active Members List of Waste Pickers at the Bouffa Landfill

SN	Name	Living Area	Male/Female	Picking Items	Shoes size
1		Etas	Male	All	8
2		Etas	Male	Food only	9
3		Etas	Male	All	9
4		Etas	Male	All	8
5		Etas	Male	Recyclables only	8
6		Etas	Female	All	8
7		Etas	Male	All	9
8		Etas	Female	All	9
9		Etas	Male	All	10
10		Etas	Female	All	8
11		Etas	Female	Recyclables only	7
12		Etas	Female	All	8
13		Etas	Female	All	7
14		Etas	Male	All	11
15		Etas	Male	All	10
16		Etas	Male	All	10
17		Etas	Female	All	9
18		Etas	Male	All	9
19		Etas	Female	Food only	8
20		Etas	Female	Food only	7
21		Etas	Male	Food only	7
22		Etas	Female	All	9
23		Etas	Female	Food only	9
24		Etas	Female	All	8
25		Etas	Female	Food only	8

Attachment 3-1

Waste Amount and Composition Survey Results

[Results of the Survey]

- Survey Period: 27th January 2020 – 2nd February 2020
- Target: 10 shops (out of 156 shop keepers) and 10 Restaurants (out of 24 restaurants)
- Unit Generation Survey Results

➤ Daily Results:

	Green	Restaurant	Green	Restaurant
	KG	KG	L	L
Day1	119	33	385	125
Day2	96	65	330	230
Day3	83	15	350	55
Day4	106	41.5	415	160
Day5	0	0	0	0
Day6	110.5	62	292	95

➤ Average:

	KG	L	Specific Gravity
Green	10.9	37.7	0.2903
Restaurant	5.9	18.0	0.3256

➤ Max, Minimum and Median:

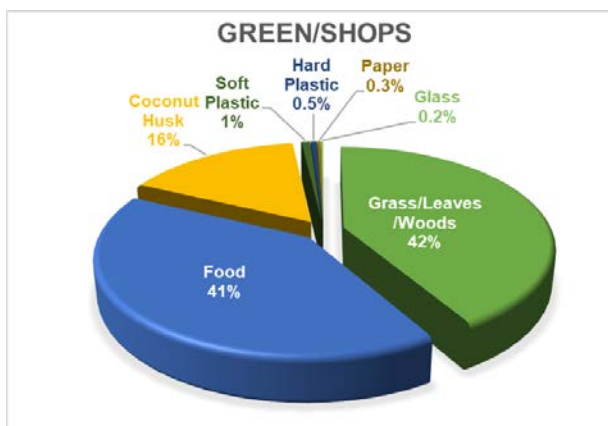
	MAX		MIN		MEDIAN	
	KG	L	KG	L	KG	L
Green	23.0	70.0	2.0	10.0	10.0	40.0
Restaurant	12.0	40.0	1.0	5.0	5.5	15.0

➤ Estimation of Daily Waste Generation Amount at the Central Market:

	ton/day	m3/day
Green	1.8	6.3
Restaurant	0.1	0.4

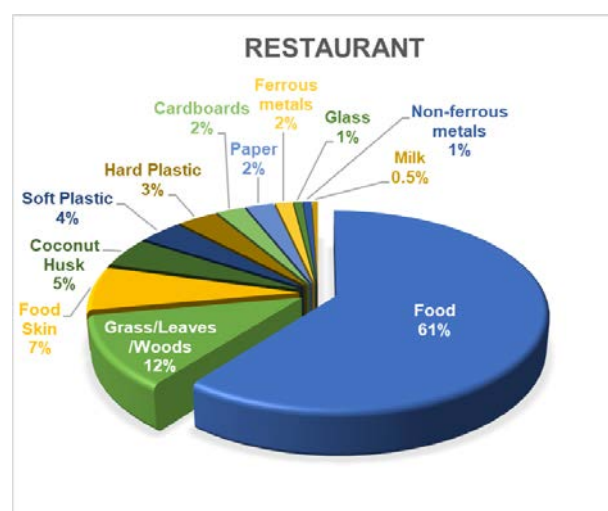
- Waste Composition Survey
 - Waste Composition generated from shops

Waste Type	KG
Grass/Leaves/Woods	204.5
Food	199.5
Coconut Husk	79.1
Soft Plastic	4
Hard Plastic	2.6
Paper	1.5
Glass	1



- Waste Composition generated from restaurants

Waste Type	KG
Food	119.2
Grass/Leaves/Woods	23
Food Skin	14
Coconut Husk	9.5
Soft Plastic	7.5
Hard Plastic	6.92
Cardboards	4.92
Paper	4.92
Ferrous metals	3
Glass	1.5
Non-ferrous metals	1.5
Milk	1



Attachment 2-2

Leaflet and Poster Design for Promotion of Market Composting

PORT VILA CITY COUNCIL

CIRCULAR TO ALL MARKET VENDORS
RE : MARKET COMPOST AND RECYCLING OF MARKET WASTE
Port Vila City starts market compost and recycling at the Central Market in partnership with Japan International Cooperation Agency (JICA).

Organic for compost


Morning Collection


Afternoon collection


Glass, PET Bottles, Aluminum Cans







Put into the Wheel Bin

Others (Plastics, Papers etc.)


Afternoon Collection


Contact: Lynda Hango, Market Manager, 7751315, lhango@vanuatu.gov.vu
Mwetu Serge Sandy, Acting Manager of Waste Management, 7751573, sergemwetu@gmail.com

Attachment 4

			
<hr/>			
<p style="text-align: center;">MEMORANDUM OF UNDERSTANDING FOR SOLID WASTE MANAGEMENT PLANNING BETWEEN PORT VILA CITY COUNCIL AND SHEFA PROVINCE</p>			
<p>This memorandum of understanding is entered between the Port Vila City Council (PVCC) and Shefa Province based on the "Memorandum of Agreement of Special Relationships between Port-Vila Municipality and Shefa Province" signed by the Lord Mayor of PVCC and the president of Shefa province on 6th October, 1999.</p>			
<p>The purpose of this agreement is to set out the terms for establishing the effective and efficient relationship on Solid Waste Management (SWM) planning in collaboration with the J-PRISM II.</p>			
<p>1. Planning Framework</p>			
<p>(1) <u>Planning Policy</u></p> <p>In principle, a PVCC SWM Plan (2021-2030) is the independent plan apart from Shefa province. However, geographically and historically, PVCC and Shefa province have been sharing local resources and development context of infrastructure of SWM for decades. Especially, waste collection service in peri-urban area and management of Bouffa landfill site are the common issues of two local authorities. Therefore, PVCC and Shefa province develop the PVCC SWM plan together in regard to these two issues.</p>			
<p>(2) <u>Responsibility of Annual Waste Management Plan</u></p> <p>Every province and municipal have a responsibility to submit an annual waste management plan to the Department of Environmental Protection and Conservation (DEPC) in line with the Waste Management Act. No. 24 of 2014. Therefore, PVCC and Shefa province have a responsibility to submit a separate annual plan every year in compliance with the Act. This long-term SWM plan is supposed to be used as a legal ground and basic policy for developing an annual plan.</p>			
<p>2. Technical Issues</p>			
<p>(1) <u>Duplication of Waste Collection Service Area</u></p> <p>Residents in peri-urban area pay the property tax for Shefa province, including waste treatment fee, and also pay for the Yellow Garbage Plastic Bag to discharge their own waste. To avoid the duplication and keep the consistency of waste collection area and fee payer, the boundary of waste collection area of PVCC and Shefa province has to be re-confirmed and awareness raising for peri-urban residents should be promoted.</p>			
<p>(2) <u>Monitoring of Private Waste Operators</u></p>			
<p style="text-align: right;"></p>			



Private waste collection companies have to be licensed as a Private Waste Operator (PWO) from DEPC, and they also have to get a business license from city council or provinces where their service area is located. However most PWOs run their businesses with expired license. Shefa province puts waste collection out to contract. To enforce the compliance of the law and regulations, monitoring system of PWO has to be strengthened. Monitoring results of the daily operation also help to identify the waste collection issues and areas to be improved.

(3) Basic Policy of Landfill Site Construction and Management

Shefa province has an idea to construct their own landfill site in the future. In consideration of the time span of new landfill site construction and urbanization speed of the Greater Port Vila, PVCC and Shefa province decide that Bouffa landfill site will continue to receive all waste discharged inside the boundary of Port Vila and Shefa province until Shefa province secures their own landfill site.

Concerning the rural areas and isolated villages in Efate, Shefa province will make their own SWM plan and determine the waste collection and disposal policy. The possible measures of waste management in villages are, for example, feeding animals, piggery, compost, farming, closing unmanaged random dumpsite, instruction of appropriate community dumpsite, and group collection of recyclables.

(4) SWM Budget

Main income source of SWM in PVCC is i) Yellow garbage bag and ii) Gate fee at Bouffa landfill site. Shefa province secures around 13 million vatu per year for SWM, which is covered by the property tax. Shefa province is seeking to sustain a SWM finance by securing a new income source such as a pre-paid bag. Special discount of gate fee is also requested by Shefa province to PVCC.

3. Terms of Agreement

The both parties will provide the necessary support for the successful outcomes. The both parties shall:

1. Allocate staffs for SWM planning.
2. Disclose the necessary information, including financial record, for discussion on SWM planning to improve waste collection and landfill site management.
3. Work together to organize public awareness in peri-urban area to notice the waste collection schedule.
4. Support establishing a monitoring system of PWOs with support of the Department of Environmental Protection and Conservation (DEPC).
5. Discuss the conditions of gate fee based on the financial analysis.



6. Support to review the introduction of pre-paid bag collection system in Shefa province through the Yellow bag review committee which will be established through the pilot project of PVCC SWM plan.

This agreement is entered into for the duration **from 24th February 2020 to 31st December 2020**-and may be modified at any time by mutual.



Mr. Peter Sakita
Town Clerk
Port Vila City Council



Mr. Ben Tabi
Acting Secretary General
Shefa Province

February 24, 2020

Witness

Mr. Junji Anai
Deputy Team Leader/
Solid Waste Management Expert
J-PRISM II