



This initiative is supported by **PacWastePlus**-a 72 month project funded by the European Union (EU) and implemented by the Secretariat of the Pacific Regional Environment Programme (SPREP) to **sustainably and cost effectively improve regional management of waste and pollution.**

Partner Event 2: Disaster Waste Management for a Resilient Pacific



Monday, 19th September 2022, 13:00 – 14:00

Mezzanine Room M2

Asia Pacific Ministerial Conference on Disaster Risk Reduction

Brisbane, Australia



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Disaster Waste Management for a Resilient Pacific
Partner Event 2: Asia Pacific Ministerial Conference on Disaster Risk
Reduction, Brisbane, Australia



WELCOME & OVERVIEW OF THE PARTNER EVENT

Mr. Bradley Nolan

Programme Manager
PacWastePlus Programme
SPREP



Objectives of the event:



Enhance knowledge of the concept of **Disaster Waste Management** and how effective waste management contributes to improving capacity of Pacific Countries to prepare for emergencies and disasters, thereby ensuring timely and effective response



Identify **key waste management measures in each stage** of the Disaster Management Cycle



Showcase **initiatives by some Pacific Island Countries** in mainstreaming Disaster Waste Management into national disaster management and risk reduction efforts



Inform of the **Regional Disaster Waste Taskforce** established following the Clean Pacific Roundtable discussion.

Inform of the **Practitioner guidelines** that will assist Pacific Islands countries to mainstream Disaster Waste Management into National Disaster Management framework. Tonga



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Panellists:



Mr Mimura Satoru

Chief Adviser – Japanese Technical
 Cooperation Project for Promotion of
 Regional Initiative on Solid Waste
 Management in Pacific Island Countries,
 Phase II- JPRISM II project



SPREP
 Secretariat of the Pacific Regional
 Environment Programme



Ms. Sainimili Bulai

PacWastePlus Programme Technical Waste
 Officer, Secretariat of the Pacific Regional
 Environment Project



Ms Tangimeimoana Kioa

Deputy Director
 National Emergency
 Management Office
 Tonga



Ms. Roselyn Bue

Senior Ozone Officer
 Department of Environment Protection
 and Conservation, Ministry of Climate
 Change, Vanuatu



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Pacific Island Countries Regional Disaster Waste Management Guideline

MIMURA Satoru
Chief Advisor, J-PRISM II

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



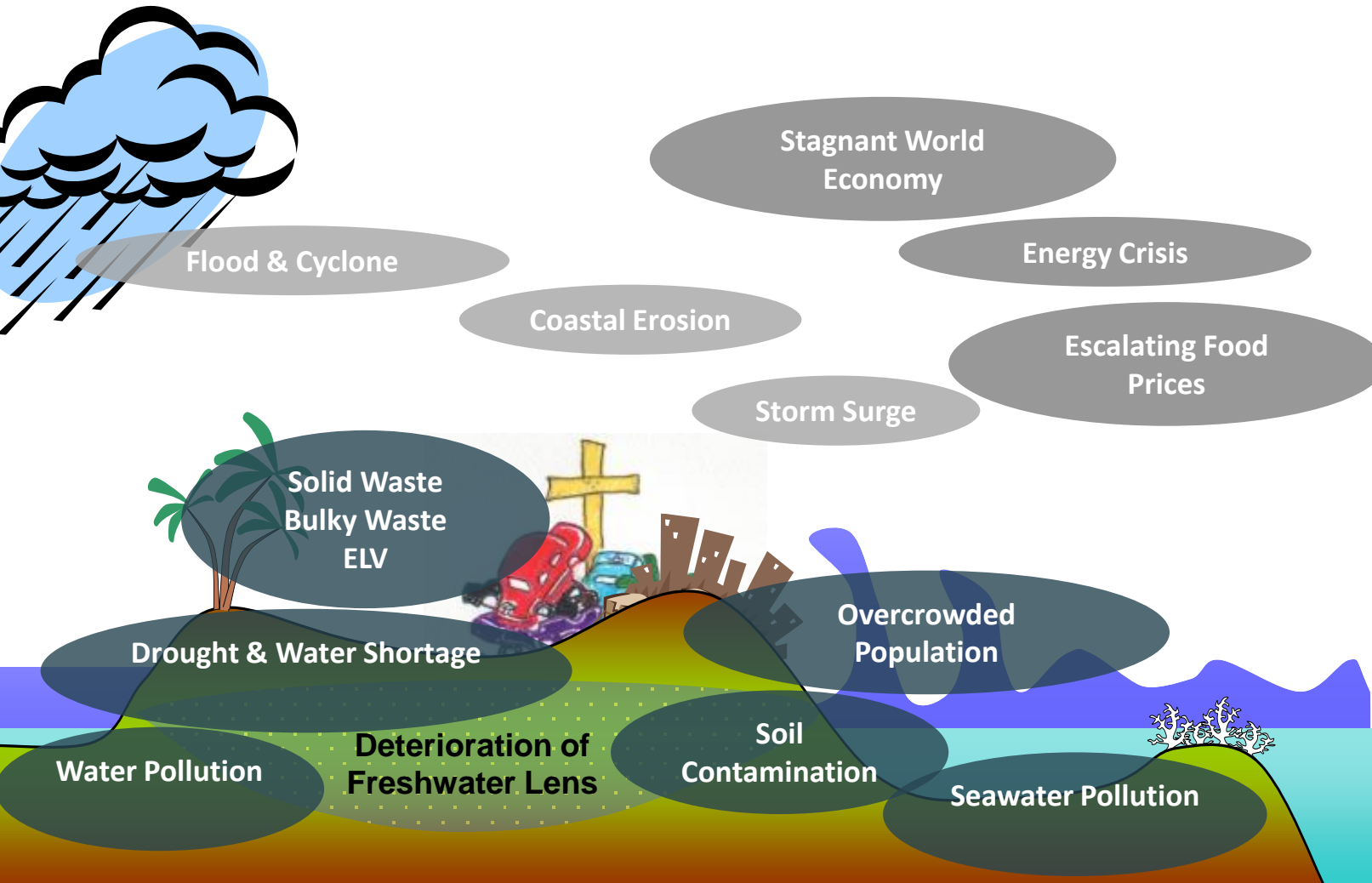
Background: Sendai Framework for Disaster Risk Reduction 2015-2030

Priorities for Action

1. Understanding disaster risk
2. Strengthening disaster risk governance to manage disaster risk
3. Investing in disaster risk reduction for resilience
4. Enhancing disaster preparedness for effective response and to “**Build Back Better**” in recovery, rehabilitation and reconstruction

Prompt and proper processing of disaster waste is essential for Build Back Better.

Vulnerability of Small Islands



Smallness
Dispersion
Isolation

**High Disaster
Risk, Low Coping
Capacity**

Change in Nature of Disaster Waste



Waste becomes more complex,
difficult, expensive to manage



Regional DWM Guideline for the Pacific

Purpose:

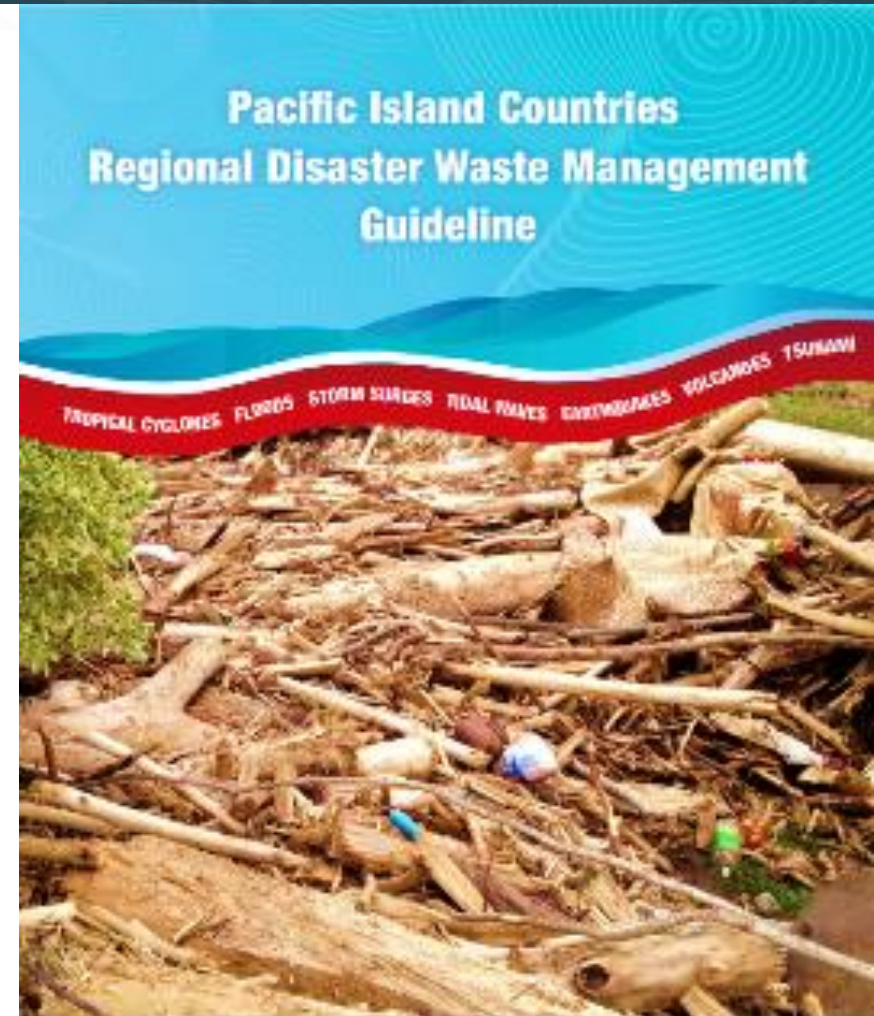
To provide guidance on **applicable and appropriate** DWM measures to PICs, considering the PICs issues and challenges.

Objectives:

- 1) Mainstreaming Disaster Waste into National Disaster Management Planning process for improved national coordination of preparedness, response and recovery operations.
- 2) Improving the supporting institutional arrangements & resources to disaster waste management.

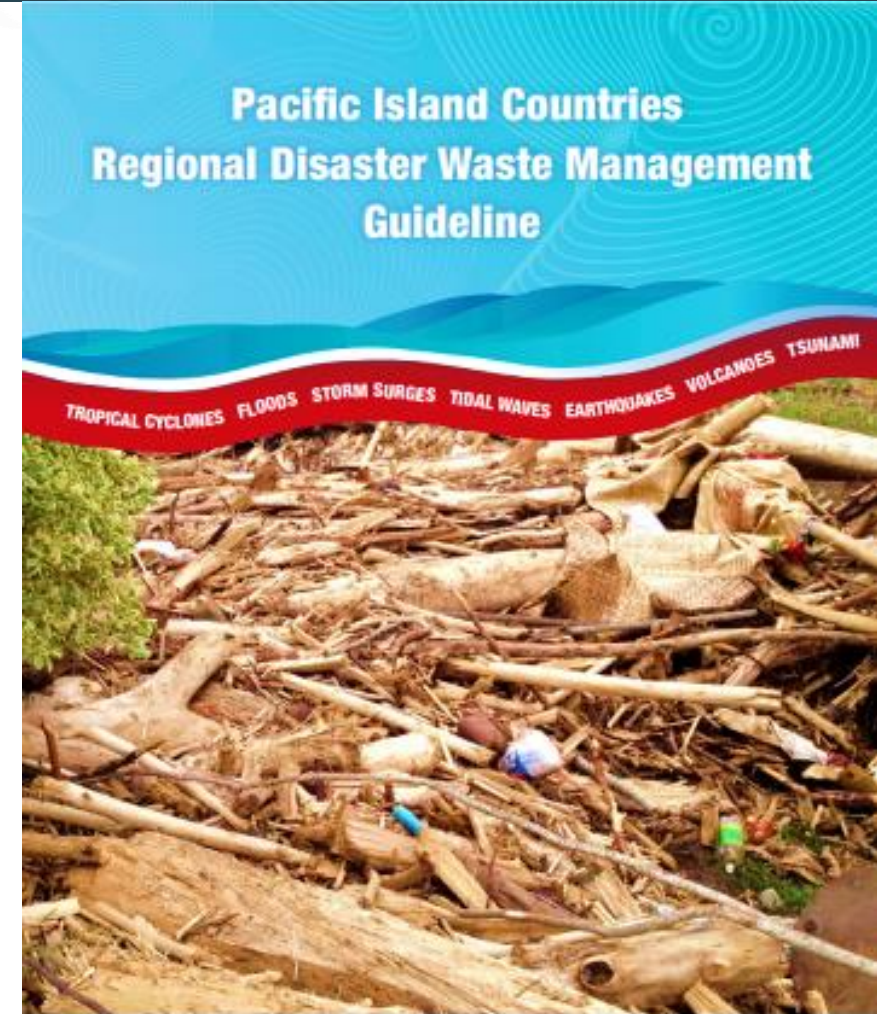
Goal:

Improved PICs DWM Capacity



Regional DWM Guideline for the Pacific

Based on International/Regional Frameworks, Strategies, Guidelines and Consultation with stakeholders



How the Guideline improves Capacity of PICs

1. Promoting DWM Practices, Measures and Approaches
2. Mainstreaming Disaster Waste Management into National Disaster Management Plans



Promoting DWM Practices, Measures and Approaches

Enhance skills and knowledge of PICs on DWM measures under the following stages and timeline of a disaster event:





Maintenance of Access Road to
Landfill before the Cyclone
Season



Preparedness stage

- Developing plans, making supporting arrangements and trainings
- Improvement of Existing Waste Management Systems and Services



Existing Waste Services
Improvement





Rapid Assessment
& Mapping

Response stage

- Rapid Assessment & DW Issues Mapping and Prioritize Response DW actions
- Road clearance, containment of identified risks (asbestos, carcasses), etc.



Road Clearance



Containing Hazardous
Waste



Recovery of reusable for the
affected communities

Recovery stage

- Recovery of **Reusable** and **Recyclable** waste materials – reducing collection and disposal costs & incoming waste to disposal sites



Recovery of recyclable for
recyclers



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Mainstreaming Disaster Waste Management into National Disaster Management Plans

- **Disaster Waste Management Plans are drafted based on the Regional Guideline for Samoa, Tonga, Vanuatu and Solomon Islands**
 - ✓ as a supporting plan of existing National Disaster Management Plans
 - ✓ as an instrument to mainstream disaster waste to all sectors, agencies and stakeholders for their contribution
- **Capacity Development on Disaster Waste Management in the Pacific is collaboratively supported by SPREP -PacWastePlus and SWAP-, J-PRISM II and other partners**



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Thank you, Arigato and Fa'afetai!

Please feel free to download a copy of the Regional
Disaster Waste Management Guideline:

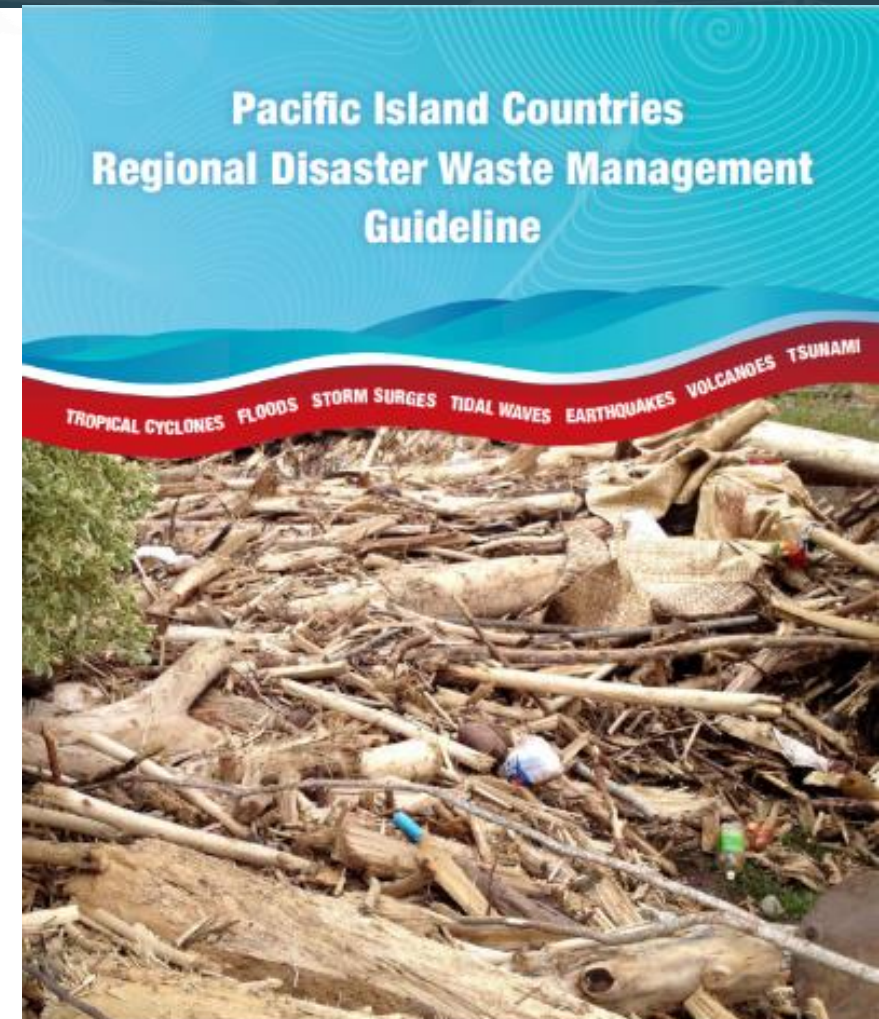
https://library.sprep.org/sites/default/files/2022-02/disaster-waste-management-guideline_0.pdf

MIMURA Satoru

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Tonga's national efforts in improving Disaster Waste Management

Ms Tangimeimoana Kioa
Deputy Director
National Emergency
Management Office
Tonga





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VANUATU DISASTER WASTE MANAGEMENT INITIATIVES TC Harold RESPONSES and CHALLENGES

Ms Roselyn Bue

Environmental Protection
Division

Department of
Environmental Protection &
Conservation (DEPC),
Vanuatu





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PREPAREDNESS

Policy Development:

1st Disaster Waste Management Training in November 2019 to pilot the Regional Disaster Waste Management tool kit

Acknowledgment: Canadian Government for funding the training through the joint coordination of SPREP, JICA J-PRISM II Project, and the University of Newcastle.

Follow up workshop from the training with the main goal to develop Vanuatu's National Disaster Waste Management Contingency Plan

Acknowledgment: SPREP and J-PRISM II Team Experts for their commitment to undertake this task jointly with the Government of Vanuatu.

The workshop provided an overview of relevant stakeholder roles in terms of Disaster Waste Management during a Disaster. Disaster Waste Contingency Plan to be finalised by November 2020 or earlier.

TC HAROLD RAPID DISASTER WASTE ASSESSMENTS

Conducted on Sanma Province and Penama Province:

- **Santo Island** – Luganville, Show Ground, Banban, Butmas, Fanafo, South Santo
- **Malo Island** – West Malo
- **Aore Island** (Visual on the way to Malo Island)
- **Pentecost Island** – South Pentecost and Central Pentecost 2

At all locations, majority of waste was Green Waste and Building Debris including bulky wastes such as iron roofing's, timber etc.



RECOVERY ACTIVITIES POST TC HAROLD

Location	Recyclables (m3)	Bulky Waste (m3)	Non-Recyclable Waste (m3)	Total Disaster Waste (m3)
Banban (Santo)	8.9	17.5	26.1	52.5
Show Ground (Santo)	2.4	98	35	135.4
Chapuis (Santo)	14.6	8.0	18.1	40.7
Solway (Santo)	3.3	0.5	1.7	5.5
Pangi (Pentecost)	3.2	-	0.2	3.4



RECOVERY ACTIVITIES POST TC HAROLD

Location	Recyclables (m3)	Bulky Waste (m3)	Non-Recyclable Waste (m3)	Total Disaster Waste (m3)
Vasemakul (Pentecost)	0.2	-	0.2	0.4
Waterfall (Pentecost)	-	-	-	-
George Lini Plantation (Aore, Santo)	0.2	-	0.2	0.4
Waisale (Malo, Santo)	0.2	-	0.2	0.4
TOTAL	33	124	81.7	238.7





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CHALLENGES

EMERGENCY RESPONSE CHALLENGES

FUNDING: Access to the Main Disaster Funding from the Disaster Management Office was an issue – other internal funding were diverted to fund the disaster waste assessment activities.

DELAY IN RESPONSE: Disaster Waste Assessment Team comprising DEPC & Port Vila City Council undertook assessments at least three weeks after TC Harold came through Vanuatu.

DATA ANALYSIS: Delay in submission of assessment forms

LACK OF APPROPRIATE EQUIPMENTS/RESOURCES:

- Rapid Assessment was conducted on phone
- No People Protective Equipment, Woodchippers, Chain Saws, Minor Oil Spill Tool Kits
- No Temporary Dumpsite secured in Luganville

COLLABORATION BETWEEN RELEVANT STAKEHOLDERS: Needs to be strengthened

ASSESSMENT FORMS:

- Technical Issues – Revision of Forms without knowledge of assessment teams
- Technical Capacity/Guidance to undertake assessment and lack of baseline data to refer to

DATA ANALYSIS: Delay in submission of assessment forms

Post TC Harold Recovery Activity Challenge

The main challenges

- On the islands far from town, it is not easy to engage people to do cleanup and recovery activities as most people were busy rebuilding their homes and gardens
- Waste had to be transported from the smaller islands to the main island and it is not easy and costly to find boats



RECOVERY: Post Disaster Needs Assessment (PDNA)

Government Level : A PDNA Report has been submitted to the Prime Minister's Office it covers both Disaster Waste and Biodiversity recommendations post assessments.

Due to Dengue Fever Outbreak in Luganville, Santo a Massive Clean-Up Campaign was jointly organised by the Ministry of Health, the Luganville Municipal Council and the Department of Environmental Protection & Conservation – Fully funded by the DEPC.

Regional Level: A formal request for assistance sent to SPREP –ICA has donated disaster waste response equipment; chainsaws, safety boots, protective gear, goggles, Samsung tablets.

Expectations:

- Regional & International: Continuous dialogue with Regional & International Organisations including SPREP to Technical and financial support
- Coordination & Support by in-country representatives be in line with actual Country Needs post disaster



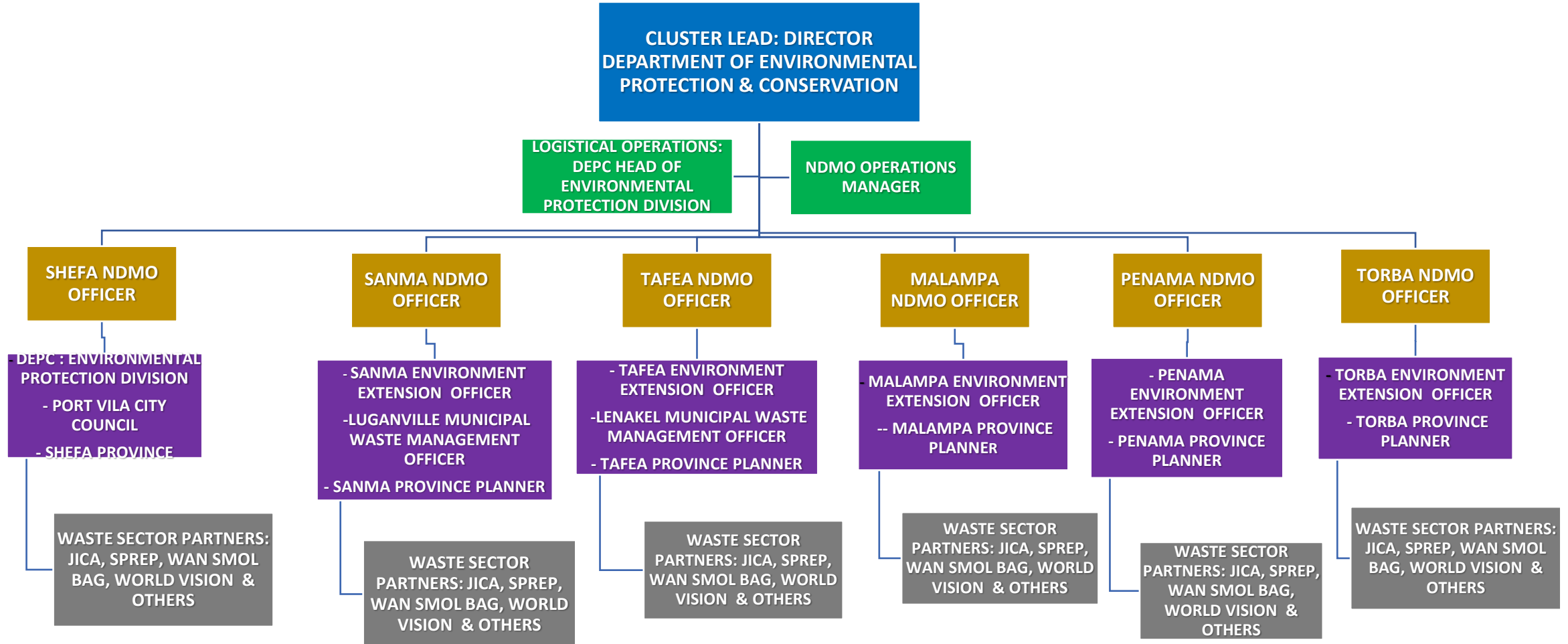
National Coordination: Disaster Waste Management

- Post-TC Harold , the Government through the Department of Environmental Protection & Conservation under the Ministry of Climate Change & Adaptation (MCCA) recognized the **need to establish a Disaster Waste Cluster under the National Disaster Framework.**
- In 2021, an Environment Cluster was established under the National Disaster Framework and has two sub-clusters; the **Disaster Waste sub-cluster** and the Biodiversity Loss sub-cluster.
- The **Disaster Waste Sub-cluster** has a structure that links all key sectors including the Government, Sub-government and NGO's stakeholders.





Environment Cluster: Disaster Waste Management Response Structure in Vanuatu





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Thank you, Tankiu Tumas!

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PacWastePlus Regional Project Disaster Waste Management

Ms Sainimili Bulai

**PacWastePlus Project
 Technical Waste Officer**

**Secretariat of the Pacific
 Regional Environment
 Project**

PacWastePlus is a 64-month project funded by the European Union (EU) and implemented by the Secretariat of the Pacific Regional Environment Programme (SPREP) to sustainably and cost effectively improve regional management of waste and pollution

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**BE PART OF THE
 SOLUTION, NOT THE
 POLLUTION**



Introduction and Background: PacWastePlus



PacWastePlus Project Implementation
In Papua New Guinea



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Secretariat of the Pacific Regional
Environment Programme



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The overall Programme objective: to generate improved economic, social, health and environmental benefits for PACP states arising from stronger regional economic integration and the sustainable management of natural resources and the environment.

The specific objective: to ensure the safe and sustainable management of waste with due regard for the conservation of biodiversity, health and wellbeing of Pacific island communities and climate change mitigation and adaptation requirements.



Hazardous Waste



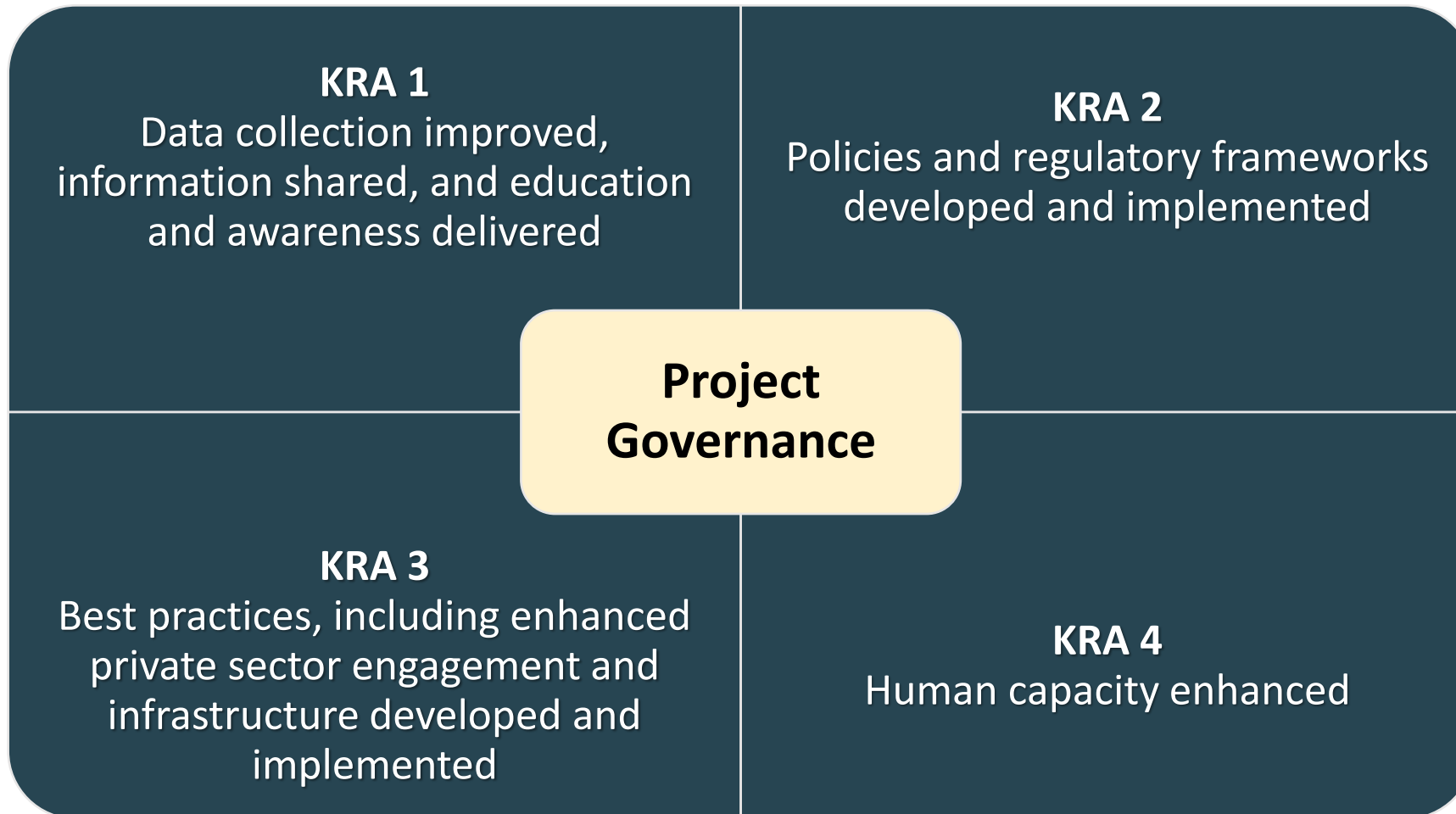
Solid Waste



Waste Water

PacWastePlus Priority Waste Streams

PacWastePlus Key Result Areas



PacWastePlus Regional Projects



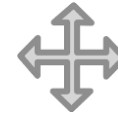
KRA 1 – Data, Information, and Education

- Regional Waste Management Data framework development
- Regional research activities (waste technology, landfill support, resource recovery)
- National Education & Awareness Plans and support



KRA 2 – Legislative Frameworks

- Waste licensing and Monitoring guidance
- Asbestos Management Model Policy, Model Code of Practice, and Landfill Guidelines
- Sustainable Financing: Advance Recovery Fee & Deposits
- **Disaster waste management task force**



KRA 3 – On-ground Action & Best Practice

- Disaster Waste Management taskforce set up
- Organics processing technologies and system establishment
- End-of-life vehicle management
- Re-use and Repair centres



KRA 4 – Capacity Building

- School education curriculum
- Waste management tertiary and vocational course development



National
Cluster Taskforce



Country
Disaster Resilience



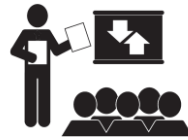
Community
Empowerment

Why

- Pacific Region is **vulnerable to Natural Disaster**
- **Enhance** countries resilience to disaster
- Proper **management of waste** generated from **natural disasters**.
- **Benefits:**
 - Incorporation of waste management into National Disaster Management Process
 - Empowerment of local communities to improve daily waste management
 - Enhance in-country capacity to manage high volume of waste generated following a disaster.



DWM Training
Manuals



Capacity
Building

What

1. **Project to be implemented in a pilot county:**
 - Waste Management Cluster within NDMO
 - Develop and implement National Disaster Plan
 - Partnership Agreements with stakeholders
 - Training of first responders/ local officers
2. **From the learnings of the Pilot project appropriate resources will be developed to assist other countries:**
 - Development of Guidelines (*on establishment of Waste Management Cluster, Practitioner guideline, drafting National Disaster Waste Management Framework, and Partnership Agreement for effective management of DW*)
 - Development of Training Manual on DWM



Guidelines



Stakeholder
Partnership



National Disaster
Management

Producing Guidelines to assist with mainstreaming waste management into national disaster management activities:

- Template and Instruction on drafting of National Disaster Waste Management Guideline
- Disaster Waste Estimation Methodology
- Terms of Reference and Establishment of Environment Cluster/ Disaster Waste Taskforce
- Video to guide local practitioners

PacWastePlus will be working with a pilot country to trial all guidelines before finalisation.





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Thank you, Vinaka vakalevu !

Ms. Sainimili Bulai
PacWastePlus Project Technical Waste Officer
sainimilib@sprep.org



<https://pacwasteplus.org/regional-project/disaster-waste-management/>

Discussions

Floor is open to questions
from participants to the
panelists



Session Moderator:
Mr Bradley Nolan

CLOSING REMARKS

Mr. Bradley Nolan

Programme Manager
PacWastePlus Programme
SPREP



Opportunity to meet with panelist at the conference **Exhibition Booth** or at the **Pacific Pavilion**



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THANK YOU FOR YOUR VALUABLE PARTICIPATION

Visit our website to learn more

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