



SPREP
Secretariat of the Pacific Regional
Environment Programme



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REGIONAL FACTSHEET NATIONAL DISASTER WASTE MANAGEMENT PLANS : BENEFITS OF HAVING DISASTER WASTE MANAGEMENT PLANS AND PLANNING TO PACIFIC ISLANDS

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The intensity and frequency of natural disasters such as tropical cyclones are evidently increasing in the Pacific.

When these natural disasters occur large amounts of waste are generated from damage to both the natural and man-made environment. Inefficient or ineffective management of clean-up efforts following a disaster often results in the slow and costly recovery of a community, potentially risking public and environmental health.

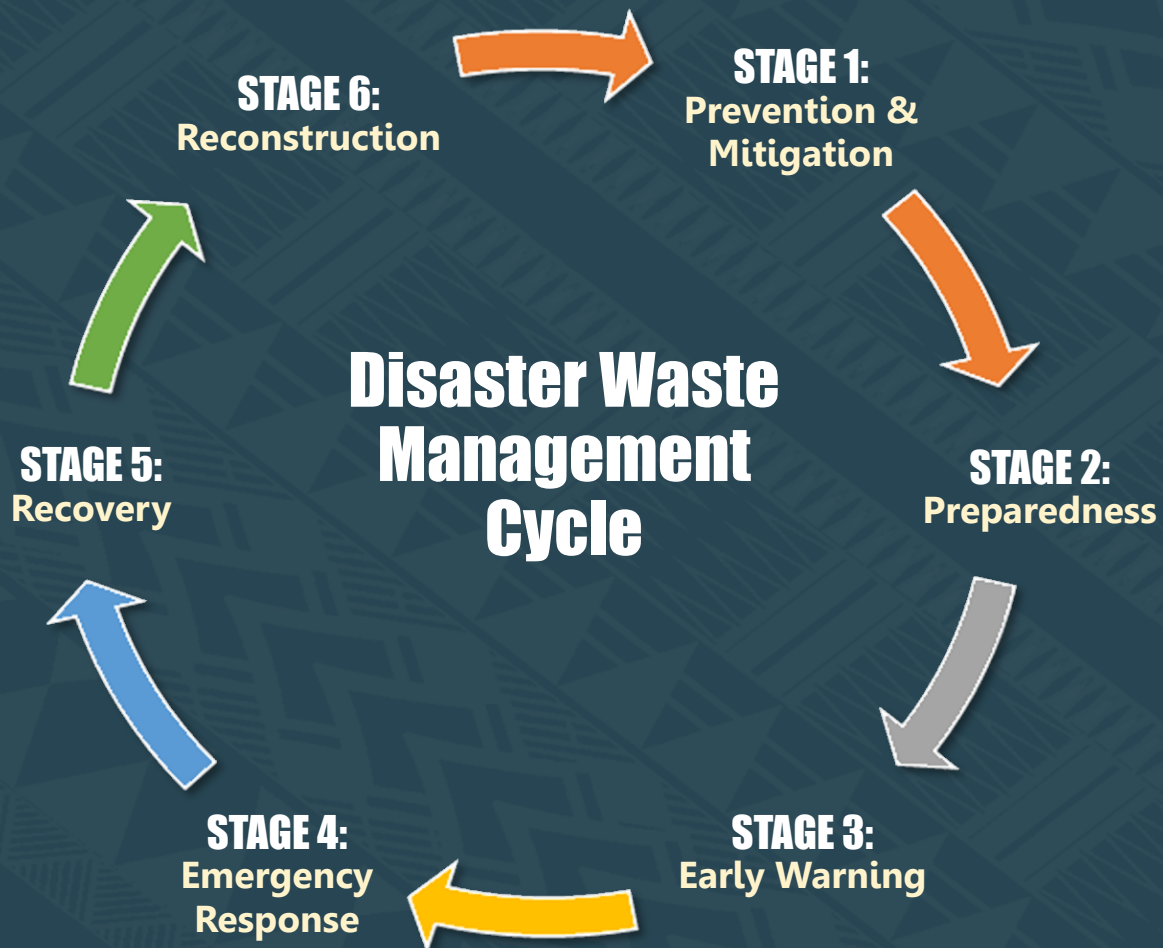
Effective implementation of disaster waste management (DWM) will assist the smooth recovery of communities and their environments.





- An effective and useful guideline at the time of a disaster and also during post-disaster recovery by working through waste disposal options in advance, making execution as smooth a process as possible.
- Disasters, many of which are exacerbated by climate change and which are increasing in frequency and intensity, significantly impede progress towards sustainable development.
- Proper waste management planning allows governments to reduce disaster risk and effectively protect persons, communities and countries, their livelihoods, health, cultural heritage, socioeconomic assets, and ecosystems, and thus strengthen their resilience.

The stages of disaster management are prevention [includes mitigation], preparation, early warning, emergency and response, recovery and reconstruction.

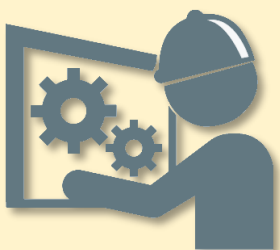


Stages 1 and 2 - Prevention & Mitigation and Preparedness

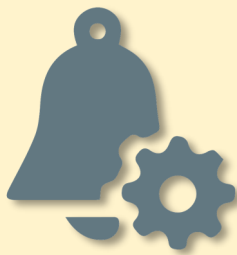
The **Prevention & Mitigation, and Preparedness stages** of Disaster Waste Management occur before a disaster strikes, and the activities are focused on reducing wastes generated from natural disasters.

Preparing for a disaster requires an understanding of existing waste infrastructure capacities and identifying potential damage to infrastructure from a disaster. A Preparedness plan is developed and implemented to effectively reduce the volume of waste generated during a disaster.

Preparedness plan clearly identify key national authority and nominated companies with respective responsibility for the removal and safe disposal of waste once a hazard warning is officially issued and following a disaster.



Stage 3 - Early Warning



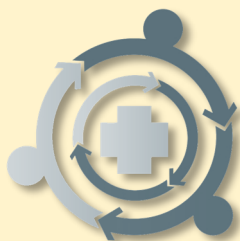
The **early warning** stage commences once a natural hazard (Flood, cyclone, earthquakes) is announced by the relevant government office (e.g. National Metrological Office, or Mineral Resource Department). Following this announcement, the Preparedness Plan is activated enabling responsible authorities to commence waste removal from communities, central business districts and healthcare facilities for safe disposal. Temporary Waste Management sites can now be established and prepared to ensure safe storage of disaster wastes that may not be able to be immediately taken to regulated landfills due to impacts from the disaster event. To ensure the safety of waste collection/transport workers, activation of these activities is not recommended after a tsunami warning is issued.

Stage 4 - Emergency Response



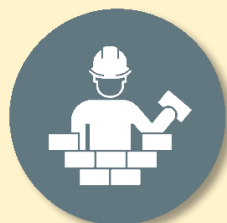
The Disaster Waste Management Operations undertaken in the **emergency response** stage are focused on saving lives. A rapid assessment of the type, scale and location of wastes generated by the disaster event is undertaken, as it is likely some level of immediate 'clean-up' may be required to enable emergency services to access affected communities. Efficient disaster waste assessment following a disaster assists the activation of appropriate response operations and informs the scope of works to be undertaken during the recovery stage.

Stage 5 - Recovery



Recovery operations focus on evacuation (where needed) and relief of communities from the impacts of the disaster event. Final preparation of the recovery operations (including compiling any additional data) is undertaken prior to deploying recovery teams. Recovery operations are designed to restore, resume, and reconstruct all affected services and facilities in collaboration with development partners, to enable communities to return to normal, so soon as possible. Trained field operators should be deployed to collect and remove disaster waste based on the recovery plan.

Stage 6 - Reconstruction



Reconstruction often includes the removal and management of waste generated not only from the disaster event, but the rebuilding operations. Reconstruction activities will likely also include rehabilitation to any damaged waste management facilities. It may take months or years for the reconstruction activities to be completed.

How can PacWastePlus Assist:

The PacWastePlus (PWP) programme will be able to assist countries by providing capacity development trainings, engaging stakeholder consultations and plan formulation support.

If you are keen to undertake the development of a National Disaster Waste Management Plan please do contact our PWP Technical Officer (Solid Wastes) Ms. Sainimili Bulai, sainimilib@sprep.org

The programme team will be glad to answer any questions regarding introducing a Disaster Waste Management Plan for participating Pacific countries.



Disaster Waste planning activities that may provide the greatest benefit for a community that has limited resources and time to effectively prepare for a disaster. The plan explicitly explains the following:

What is in a Disaster Waste Management Plan (DWM)?

Partnership with key stakeholders and sectors

Public works
Public health
Other industry and business leaders

Transportation
Sanitation
Emergency response
Environmental
Agricultural

Determining locations for criteria

Capacities for debris management sites
Decontamination activities
Temporary storage

Identifying potential debris streams

Industrial
Agricultural
Residential
Commercial zones in the community

Reuse and recycling programs to determine if they can be scaled up to handle disaster-related wastes

Evaluating existing programs

Considering waste collection strategies

Separating the debris into different waste streams before transporting it off-site

Selection of potential facilities

Reuse
Composting
Recycling
Treatment
Disposal facilities
Mobile treatment units

Outreach

Creation of a debris management-focused community outreach plan

Addressing health and safety considerations

Handling orphaned tanks
Animal carcasses
Asbestos-containing materials
Pest-infested vegetative debris
Hazardous chemicals from school chemistry labs, medical offices and hospitals