







PacWaste is a four year project (2014–2017) funded by the European Union and implemented by the Secretariat of the Pacific Regional Environment Programme (SPREP), to improve regional hazardous waste management across the Pacific in the priority areas of healthcare waste, asbestos waste, E-waste and integrated atoll waste management.

A further priority for PacWaste is to foster links between Pacific island countries and encourage information sharing on sustainable waste management through regional collaboration and twinning arrangements.

Tonga is one of 15 countries participating in PacWaste, with activities taking place in the project domains of healthcare waste, E-waste and asbestos.

### **Healthcare** waste

PacWaste is working across 14 Pacific island countries and Timor-Leste to improve the management of healthcare waste. Healthcare waste is hazardous because it has the potential to be infectious or harmful to humans and the environment.

In Tonga, PacWaste conducted a healthcare waste management baseline survey in March, April and May 2014, through which information was collected on current waste management processes, from ward-level waste generation through to treatment and disposal. Audits were conducted at Tonga's four largest hospitals — Vaiola Hospital (Tongatapu), Prince Ngu Hospital (Vava'u), Niu'eiki Hospital (Eua) and Niu'ui Hospital (Ha'apai).

The survey found that healthcare waste segregation and containment practices at all four sites were below minimum standard, with little signage or secure storage present. Additionally, the method for treatment of healthcare waste was not in accord with the required standards at any of the hospitals visited.

To help address these issues, PacWaste has procured new, high temperature incinerators for each of the four hospitals and will provide much needed healthcare waste management training for staff. PacWaste will also provide Personal Protective Equipment (PPE), signage and secure storage systems to assist with waste segregation.

## **Asbestos**

PacWaste is working across 13 Pacific countries to address the issue of asbestos — a naturally occurring fibrous mineral that was once commonly used in building materials and other consumer items. Asbestos is now banned from most modern products as it has been found to be a major threat to human health.

In Tonga, PacWaste conducted a baseline asbestos survey in November 2014 to determine the prevalence of asbestos, ascertain risks associated with the materials and identify best practice options for cost-effective and sustainable interventions.

The survey found asbestos containing materials at a number of locations in Tonga, with 21 sites considered moderate to high risk and the remainder to present a low to very low risk to human health. Following the application of an asbestos assessment risk methodology, PacWaste has committed to the removal, secure transport and safe disposal around 6,950m² of asbestos from eight different locations in Tonga.

Tonga will also be targeted in a regional public awareness campaign about asbestos risk and the steps that can be taken to minimise exposure.

#### E-waste

The rapidly increasing use of electrical and electronic equipment in the Pacific is resulting in increased volume of E-waste. Dumped E-waste can release harmful contaminants into the environment such as lead, cadmium and dioxins. The good news is that many end of life electronic items contain recoverable and valuable components such as copper, steel and gold.

Regionally, PacWaste is collecting information about current E-waste management and stockpiles across nine Pacific island countries to assist in the improved management of E-waste in the region.

In Tonga, PacWaste will launch an E-waste pilot project through which training will be provided in how to safely extract and export valuable or hazardous materials from old electronic and computer equipment. Shipping and logistical support will also be given to enable the processed E-scrap to be exported internationally.

# **PacWaste Actions and Impact: Tonga**

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ACTION	LOCATION		IMPACT	
Healthcare waste	•••••	•••••	•••••	
Healthcare waste baseline survey	<ul><li>Vaiola Hospital (Tongatapu)</li><li>Prince Ngu Hospital (Vava'u)</li></ul>			icare waste
Provision and installation of high temperature healthcare waste incinerators	<ul><li>Vaiola Hospital (Tongatapu)</li><li>Prince Ngu Hospital (Vava'u)</li></ul>	<ul><li>Niu'eiki Hospital (Eua)</li><li>Niu'ui Hospital (Ha'apai)</li></ul>	Healthcare facilities have increased capacity for the proper disposal of healthcare waste.	
Incinerator operator training	<ul><li>Vaiola Hospital (Tongatapu)</li><li>Prince Ngu Hospital (Vava'u)</li></ul>	<ul><li>Niu'eiki Hospital (Eua)</li><li>Niu'ui Hospital (Ha'apai)</li></ul>	Incinerator operators have the necessary skills to operate and maintain equipment.	
Healthcare waste management training	<ul><li>Vaiola Hospital (Tongatapu)</li><li>Prince Ngu Hospital (Vava'u)</li></ul>	<ul><li>Niu'eiki Hospital (Eua)</li><li>Niu'ui Hospital (Ha'apai)</li></ul>	Healthcare facilities can effectively and safely handle their waste from point of creation through to disposal.	
Provision of Personal Protective Equipment (PPE), signage and secure storage systems.	<ul><li>Vaiola Hospital (Tongatapu)</li><li>Prince Ngu Hospital (Vava'u)</li></ul>	<ul><li>Niu'eiki Hospital (Eua)</li><li>Niu'ui Hospital (Ha'apai)</li></ul>	Healthcare facilities have improved storage facilities for healthcare waste and an integrated system of ensuring that wastes are clearly identified.	
Assistance in developing a national healthcare waste strategy	National Healthcare waste management is prioritiser level in accordance with best practice.		at the national	
Asbestos				
Asbestos baseline survey	■ Tongatapu ■ Vava'u		Detailed information about the prevalence of asbestos is publically available.	
Removal, transport and disposal of around 6,950m² of asbestos from eight different locations	<ul> <li>Waimpuru Secondary School (Makira)</li> <li>Tonga Post Ltd (Vava'u)</li> <li>MOI WOF Centre</li> <li>Fua'amotu Domestic Airport</li> <li>Prince Ngu Hospital (Vava'u)</li> <li>St Andrews School</li> <li>Tonga Water</li> <li>Vaiola Hospital (Tongatapu)</li> </ul>		High risk asbestos is safely removed, reducing the risk of exposure to the general population.	
Asbestos management training	■ Tongatapu ■ Vava'u		Asbestos can be effectively and safely remo disposed of in accordance with internationa	
Asbestos public awareness campaign	<ul> <li>National</li> </ul>		Residents are aware of asbestos risks and the taken to minimise exposure.	he steps that car
Assistance in developing a national asbestos strategy	■ National		Asbestos management is prioritised at the r accordance with best practice.	national level in
E-waste				
E-waste reception and processing centre	■ Tongatapu	•	An NGO operated E-waste collection and pr will be supported.	ocessing facility
E-waste pilot project	■ Tongatapu		Workers are further trained in how to safely extract and export valuable or hazardous materials from E-waste.	
E-waste public awareness campaign	■ National		Residents are aware of their options for safely disposing of E-waste.	
Information sharing, regional collabora				
Connection to a developing recycler's network.			Opportunities are opened up for recycling n scrap steel, plastics, E-waste, and Used Lea	
Provision of resources, guidance materials and participation in regional workshops and other events.	■ Regional		Relevant national personnel have an improved understanding of best practice solutions for solid and hazardous waste management in the Pacific.	
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www.sprep.org/pacwaste The Pacific environment - sustaining our livelihoods and natural heritage in harmony with our cultures.

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Detailed information about PacWaste activities in Tonga, including baseline survey reports, are available at: www.sprep.org/pacwaste