



Solid Waste Management in the Pacific

Nauru Country Snapshot

BACKGROUND

Nauru is a small country of around 10,200 people located on a single island in the Pacific Ocean. Per capita gross domestic product was estimated to be A\$11,540 (approximately \$10,500) in 2012 (Key Indicators for Asia and the Pacific 2013).¹ The country is divided into 14 districts with the seat of government in the Yaren district, which also functions as the country's de facto capital. The national government does not delegate any of its affairs to lower institutional levels, such as the districts. Nevertheless, most districts have elected community committees working on an informal basis on matters, such as district cleanups.

TECHNICAL ASPECTS

Waste Collection, Transfer, and Disposal

Until the 1990s, there were no proper facilities or infrastructure to dispose of solid waste in Nauru. Household waste was buried in backyards or at the beach, thrown into the sea, or burned. In 1992, a municipal waste landfill was developed and managed by the Nauru Local Government Council (NLGC). However, after the NLGC was abolished by the government in 1999, each individual household was responsible for dumping their own rubbish at the landfill. Those without means of transportation tended to dump their rubbish elsewhere. Daily garbage collection is now provided by Nauru Rehabilitation Corporation (NRC) through its Waste Management Division to households around the island.

NRC sells 240-liter plastic wheelie bins to households to store their rubbish, and rents out miniskips (3 cubic meters) per day to businesses for their industrial waste. However,

not all households can afford to buy the bins at A\$110 (about \$103), and those without the wheelie bins dispose of their waste in other ways that are not controlled by NRC. Common methods of disposal include open backyard dumpsites, disposal at sea or on unused land, and burning. NRC also carries out cleaning of residential areas at the request of the health department.

The management and control of the landfill has been, and continue to be a challenge. Nauru lacks national environmental and health laws to regulate the dumping of hazardous waste and general rubbish.

Municipal waste is taken to the landfill, which is also operated by NRC. It is located on top of an aquifer, which does not have appropriate lining of waste disposal cells or leachate collection. The waste is usually burned first and then pushed into old mined-out areas. Occasionally, the landfill area is bulldozed and covered with a thin layer of soil. Only one bulldozer is working at the dumpsite, and sometimes the waste accumulates since the bulldozer is also used for other jobs on the island. The landfill is reaching the end of its life; and if the landfill is not rehabilitated, seepage from the site will cause major contamination of underground sources of water.

Biowaste from medical facilities has, at times, been burned at the landfill because of operational problems with the hospital incinerator. With little segregation of wastes and proper disposal of hazardous waste, chemical substances pose a risk to public health and the environment.

One particular area of concern is the disposal of asbestos. An estimated 90% of Nauru's houses are built with asbestos roofing, which is now being replaced because

¹ ADB. 2013. *Key Indicators for Asia and the Pacific 2013*. Manila.



Photo by A. Woodruff

Reuse of old tires

of the health risks it presents. Special training is needed in the handling and disposing of asbestos. Phosphate processing, which releases cadmium-rich waste, also poses an environmental threat.

Recycling

Neither household nor industrial waste is segregated at the point of collection. There is no waste transfer station in Nauru; hence, NRC attempts to extract recyclable wastes at the landfill before the rest of the rubbish is bulldozed into the site. Because of a lack of staff and equipment, very little recyclable materials are salvaged.

A few small businesses recycle small amounts of aluminum, but have little or no access to markets or potential buyers for the recycled materials.

INSTITUTIONAL ASPECTS

Nauru has never had a functional strategic management plan for its solid waste. As a result, the country is faced with insufficient financial resources to manage its waste problem;

open and unsanitary dumpsites; and a malfunctioning collection system, shortage of qualified workers in waste management, along with the socioeconomic and environmental impacts of poor solid waste management (SWM).

SWM is a key priority in Nauru's National Sustainable Development Strategy (NSDS) 2005–2025. The NSDS aims to minimize negative impacts on public health and the environment through the effective management of waste and pollution. This is to be realized by strengthening the waste and sewage sector through building capacity to manage solid and hazardous wastes and sewerage. Work on the development of a national SWM strategy began in 2008 but it is yet to be finalized.

The NRC was set up as a statutory body under the Nauru Rehabilitation Corporation Act, 1997. One of its core functions is waste management.

Two types of legislation cover aspects of waste management: (i) a draft environmental management act, and (ii) by-laws and ordinances on littering.

The Environmental Management Act was submitted for approval to the Parliament in mid-2011, but it has still not been enacted. There is a need to strengthen the legislation against illegal waste disposal in line with international best practices. The by-laws and ordinances on littering need to be reviewed to increase their effectiveness, due to lack of provisions for enforcement and implementation. Some also need to be amended to address the changing nature of today's wastes.

There is no clear institution/agency assigned as the regulator for SWM in Nauru, but the Department of Commerce, Industry and Environment is generally assumed to fill this role.

FINANCIAL ASPECTS

When Nauru's economy was strong, the government provided many free services to the public, including education, health, and waste management. However, since the economic crisis in the early 2000s, the government has

introduced several taxes and user charges. These have been used to fund many government services.

However, the government is yet to address the need to cover the costs of waste management. NRC largely absorbs the cost of collecting household wastes, although it raises some revenues through the sale of wheelie bins and miniskips.

PUBLIC AWARENESS

The government uses television, radio, billboards, community workshops, and demonstration sites to reinforce the message of cleanliness and environmental protection. Despite this, there is a general lack of public understanding of SWM issues and the grave negative impacts of inefficient management. There is therefore a need to promote awareness on the 3 Rs— reduce, reuse, and recycle.

To help keep the country clean, the government established a cleaning group called "Clean and Green." The



Disposal of old vehicles remains a problem in Nauru

Photo by A. Woodruff



Photo by A. Woodruff

Wheelie bin on a street in Nauru

workers, who are paid minimum wage, are tasked with cleaning the streets on a daily basis. There are 15 groups in all to cover the whole island, with 10 workers per group. They clean the main roads and gutters, and grow trees and plants.

The Litter Prohibition Act 1983 is in force, but enforcement is poor.

To address these challenges the following actions are recommended:

- (i) Finalize waste management strategy.
- (ii) Review current waste collection system including options for increasing cost recovery.
- (iii) Develop plans for rehabilitation of existing or establishment of a new landfill.

CONCLUSIONS AND RECOMMENDATIONS

Waste management is a major concern in Nauru because of its negative impacts on public health, the environment, food security, and tourism.

Key challenges on SWM include (i) limited land and budget; and (ii) lack of clarity in the institutional arrangements, infrastructure and equipment, political will to introduce cost recovery and enforce the laws and regulations, and expertise.

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