



Solid Waste Management in the Pacific Vanuatu Country Snapshot

BACKGROUND

Port Vila is the capital of Vanuatu. The Port Vila Urban Area (PVUA), defined as the Port Vila Municipality (PVM) and adjoining peri-urban areas, has a population of about 70,000. About 49,300 of these people live in PVM. Per capita gross national income in Vanuatu was approximately 279,402 vatu (Vt) (around \$3,073) in 2011.¹

Following its independence in 1980, the government of Vanuatu acquired all land within PVM and now leases the land to individual lessees. Outside PVM, land is under customary ownership, and the local government of adjoining Shefa Province is responsible for land management. Most of the 13 peri-urban informal settlements in PVUA are on customary land, and most future growth in PVUA is expected to occur in the settlements.

The economic impact of poor waste collection is significant, not just in the central urban area of Port Vila, but also in all tourist areas within PVUA. The tourism industry holds great promise for economic development, especially with the coming re-development of the harbor and downtown areas of Port Vila. The port is one of the principal gateways to other tourist areas in the country. Government, community, and business leaders in Port Vila have repeatedly expressed concern that tourism development is put at risk by poor waste management practices.

TECHNICAL ASPECTS

PVM is responsible for providing a rubbish collection service for all residences, businesses, and government offices within the boundaries of the municipality.

Public and private waste collection systems provide limited coverage in the central urban area of PVM. About 60% of household, office, and commercial wastes generated in PVM are collected by the municipality's trucks. Virtually all wastes collected in PVUA are deposited at the Bouffa dump, which lies outside the PVM area but is operated by the Port Vila Municipal Council (PVMC). There is little or no waste collection at the edges of PVM or in the peri-urban settlements. In those areas—home to around 40,000 people—waste is dumped and often burned near where it is generated.

Areas that attract tourists and lie outside PVM, but still within PVUA, do not have public waste collection service. These areas are lightly served by private collection services, but much waste is dumped or burned. Some resorts, waste collectors, and residents of nearby communities that do not have waste collection service dump wastes in streams and ravines, and the rubbish is then washed down directly into prime tourist areas along the coast. For example, a roadside rubbish dump is located half way up Klem's Hill, and water runoff from the road washes the rubbish down into a mountain stream, and eventually over a waterfall that is one of the prime tourist attractions on the island.

PVMC has five collection vehicles, including three compactor trucks, but one or more are often inoperable. PVMC collects about 60% of the solid waste generated in PVM. Private companies and self-haulers in the wider PVUA collect another 10%. Counting areas within PVM that have little or no collection service, only about half of the solid waste generated in PVUA is collected. The other half is dumped or burned.

At the Bouffa dumpsite, a single PVM employee records vehicular traffic and collects fees from self-haul and

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



Photo by J. Tim O'Meara.

Rubbish awaiting collection in the central business district of Port Vila

commercial vehicles but not from PVMC vehicles. Waste is compacted infrequently and is not covered. The dump is otherwise well-managed, and has received significant support from the Project for the Promotion of Regional Initiative on Solid Waste Management funded by the Japan International Cooperation Agency, which helped implement an improvement program at the site.

The dirt access road leading to the dump is about 3.5 kilometer (km) long and very rough due to heavy truck traffic. The start of the access road is about 8 km from the center of Port Vila—making an average round trip of about 23 km.

Two pilot waste audits were conducted recently in PVM, but the samples were too small to be considered representative. However, based on data for other Pacific island countries, it is estimated that total solid waste generation of households and nonhouseholds in PVUA averages between one and 1.5 kilograms per person per day. Even using a lower estimate, with a current population of about 70,000, PVUA would generate about 70 tons of solid waste per day. Taking into account waste from ships, this figure would rise to about 75 tons per day. Assuming waste generation increases with projected population growth, it could reach roughly 145 tons per day over the next 20 years.

There is limited recycling with one private sector operator involved in the recycling of scrap metals.

INSTITUTIONAL ASPECTS

Under the Environment and Conservation Act 2002, the Department of Environmental Protection and Conservation (DEPC) is designated as the lead national agency for solid waste management (SWM). Within DEPC, waste management functions are carried out by the Waste Management and Pollution Control Officer. However, the national government limits itself mainly to policy issues. A National Waste Management Strategy Action Plan was adopted in April 2011 in line with the Pacific Regional Solid Waste Management Strategy 2010–2015. The Pollution (Control) Act 2013 also cites SWM. A Waste Management Control Bill is pending parliamentary approval. The Public health Act 1994 also contains provisions to prevent littering and ensure that rubbish bins are placed in public places and outside of buildings.

Under the Decentralization and Local Government Regions Act 1994 (some amendments in 2013) municipal councils have responsibility for the management of solid waste within council areas. PVMC, operates a solid waste collection service and manages the Bouffa dumpsite. PVMC adds a separate waste collection fee when collecting property taxes from lessees, but the council waives the fee if lessees arrange their own waste collection. Shefa Province is nominally responsible for solid waste management in the peri-urban area outside PVM; but it does not have solid

waste collection or disposal systems and at present has limited capacity to provide them. Many businesses and some government offices haul their own rubbish to the Bouffa dump.

Under existing SWM legislation for solid waste much of the monitoring and enforcement is left to the same municipal agency that implements waste collection and disposal activities. That would change under the draft Vanuatu Waste Management Act, which would license “designated waste management operators” and put them under DEPC control.

FINANCIAL ASPECTS

The national and provincial budgets do not allocate funds for SWM. All funding for PVMC operations comes from tipping fees collected at the Bouffa dump and waste collection fees that PVMC charges twice yearly along with property taxes. For commercial and self-haul trucks, tipping fees at Bouffa average \$30 per ton, which can be considered high for an improved but still nonsanitary open dumpsite. High tipping fees, together with the remote location and poor condition of the access road, are major disincentives for households,

businesses, and government offices. Those households not provided with collection services by PVMC send or take their own waste to the Bouffa disposal facility.

The high tipping fee, and the extralegal ban that PVMC applies to commercial waste haulers within PVM, undermine the development of a commercial waste collection industry in Port Vila.

For its waste collection service, PVMC charges household, government, and commercial properties registered within the municipality a standard rate of Vt7,500 (\$81.63) every 6 months (corresponding to a fee of \$13.60 per month). The rate is the same regardless of the amount of waste collected, with the exception that hotels are billed as multiple units. If wastes were collected twice a week as intended, the standard fee would amount to about less than Vt144 (\$1.57) per pickup. However, twice weekly pickups are not always maintained.

PVMC sends bills to only a small percentage of properties, of which only about 60% pay. PVMC sends property tax and waste collection invoices to roughly 4,000 registered properties, but census data indicate there are about 10,300 households in the municipality and there



Wastes dumped at the Bouffa site shows lack of compacting and cover

Photo by J. Tim O'Meara.

would be another about 1,000 unregistered commercial and government properties. Assuming that some properties hold more than one household, there might be a total of around 12,000 separate properties in PVM with perhaps 8,000 yet to be registered. Thus, only about one-third of all properties receive invoices, of which about 40% carry arrears of taxes and fees from as far back as 10–12 years ago. The net result is that only about 20% of properties in PVM are paying the waste collection fee.

According to PVMC accounts, total waste collection fees paid in 2012 were about Vt28.8 million (\$313,000) while another Vt20 million (\$217,000) was collected in tipping fees at Bouffa. These funds alone could support the operation of the waste collection and disposal systems. Most of the equipment had been donated and is quite old, while spare parts and fuel are in short supply due to limited funding.

Two preliminary conclusions can be drawn from the findings. First, the shortage of funds stems primarily from a large proportion of properties that do not pay collection or disposal fees. Second, collection and disposal systems could be supported with only a modest increase in efficiency. Since current collection revenue comes from only about 20% of properties, with perhaps another 10% paying tipping fees, better collection and disposal services could be provided for all of PVM at roughly the same unit cost that now supports services to a fraction of all properties.

The activities of local recycling companies show that metal recycling is marginally profitable at the present scale and under current market conditions. Four companies formerly operated, but three closed down and the only remaining company cut its operations by half due to a decision by the national government to classify scrap metal and other recyclable materials as “second-hand goods,” which incur a 15% export duty.

PUBLIC AWARENESS

There are few sustained public awareness activities to encourage increased reuse, recycling, and waste minimization in Port Vila. A cleanup event was held in September 2013 as part of the global “Clean Up the World

Campaign” organized by the Australian High Commission, Vanuatu Tourism Office, and PVMC.

CONCLUSIONS AND RECOMMENDATIONS

Public demand for improved solid waste management is high in Port Vila. Opportunities for very significant growth in tourism development could be the main driver of public demands for improved solid waste management in the downtown and harbor areas, as well as in the many upscale resort and vacation home developments within and outside PVUA. The situation is different in the settlements inside PVM and in the peri-urban settlements and formal villages outside PVM. Those settlements and villages have little or no solid waste collection service; thus, people and businesses in those areas commonly dispose of rubbish by open dumping and burning.

The key challenges are financial, primarily caused by weak governance systems. The two most pressing needs for possible intervention are on the collection system, and the underlying governance issues that undermine the financial viability of the entire waste management system.

PVM is unusual in the Pacific in having a system in place for charging and collecting individual property taxes and waste collection fees. Although PVMC’s system is not operating at its full potential, this system could be significantly improved with efforts to strengthen financial management and institutional arrangements. ■

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