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ASIA PACIFIC
WASTE
CONSULTANTS

Vanuatu

PLASTIC WASTE
PROFILE



Acknowledgements:

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This brochure is a technical summary of the report *Plastic Waste National Level Quantification and Sectoral Material Flow Analysis, Vanuatu National Report*, that can be found here: <https://www.iucn.org/search?key=plastics>

Country overview

Key Facts

Official Name	Republic of Vanuatu
Land area	12,190 km ² (FAO)
Coastline	1,920 km (FAO)
EEZ area	680,000 km ² (FAO)
Capital	Port Vila
Climate	Tropical, sub-tropical
Terrain	Narrow coastal plain, rugged, volcanic interior
Population	266,555
Census date	2016
Language(s)	Bislama, English and French
Ethnicity	Ni-Vanuatu (98.5%), Europeans, Asians other Pacific islanders
Currency	Vanuatu vatu (VUV)
GDP per capita	USD 3,115
HDI	0.609
Exports	Fish, scrap vessels, perfume, plants, copra, cocoa, coconut oil

The **Republic of Vanuatu** is a large island-nation in the Melanesian (south-west) Pacific Ocean, consisting of 83 islands spread across 682,220 square kilometres (Figure 2). This volcanic and mountainous Y-shaped archipelago, with lush vegetation and narrow coastal plains, borders with Solomon Islands in the north-west, New Caledonia in the south-west and Fiji in the east. The islands are divided into six provinces: **Torba, Sanma, Penama, Malampa, Shefa** and **Tafea**. The largest city is the capital **Port Vila** (50,944 inhabitants), situated on the island of Efate (province Shefa), followed by **Luganville** (15,865 inhabitants) on Espiritu Santo (province Sanma), the largest and most sparsely populated island in the north of the country. In the 2016 census, Vanuatu's population was 266,555 inhabitants, 75% of whom lived in rural areas (VNSO, 2020).



4

**year
initiative**

2019-2022

6

islands

in the
Caribbean
and Oceania

3

sectors

tourism,
fisheries
and waste
management

Overarching goal:

**to demonstrate effective,
quantifiable solutions to addressing
plastic generation and leakage from
small island developing states (SIDS)**

Executive summary

As stage one of IUCN's Plastic Waste Free Islands Project, Asia Pacific Waste Consultants (APWC) was engaged in 2020 to undertake a National Level Quantification of Plastic Waste and Sectoral Material Flow Analysis in three key sectors: household and commercial, tourism and fisheries. Island-wide plastic influx and outflux mapping (including imports and exports at a national level) tracked seven plastic polymer materials to identify sources, quantities and pathways of plastic waste generated and leaked per sector in Vanuatu. The data collected provides an overall picture of the waste management landscape for Vanuatu, including the identification of plastic leakage, to provide a robust and comprehensive overview of the plastic flows.

The audit captured waste disposal data from **266 households and commercial premises, one tourism operator and nine fishing vessels.**

It also included a visual landfill audit of **330 trucks entering the landfill** to determine the overall composition of waste entering the landfill and **five stockpile assessments.**

The disposal data is supported by sectoral interviews with **270 stakeholders.**



WASTE MANAGEMENT SITUATIONAL ANALYSIS

1. Infrastructure

There is a general lack of waste management infrastructure beyond the capital of Port Vila. The main Vanuatu landfill – Bouffa (managed by Port Vila City Council and also used by Shefa Province Council) – has been upgraded to a semi-aerobic landfill, but the remaining areas of Vanuatu rely on insufficiently and inappropriately managed dumpsites, which can be considered potential sources of plastic leakage. Key facts:

- A large proportion of the rural population has no waste services available.
- There is no weighbridge at any of the dumpsites; therefore, no waste disposal monitoring is possible.
- Plastic recycling is still non-existent in Vanuatu, although aggregation and stockpiling exists to a degree.
- RecycleCorp collects PET plastic and is planning to start a trial exporting it to Australia. .

2. Budget and levies

In Vanuatu, there is currently **no solid waste management budget** at the national or provincial level. The revenue for waste management is generated through several channels, such as **user-pays system fees** obtained from waste collection services, **property tax**, **tipping fees** and **finest** for littering and waste burning. Key considerations:

- Councils rent equipment instead of investing in their own.
- Although fees and taxes exist, the income is only partially collected.
- A container deposit scheme (CDS) is being developed and introduced with support from JICA's JPRISM programme.



3. Legislation

In July 2018, Vanuatu developed legislation to reduce environmental impacts of single-use plastic materials. The new Order 15 (Waste Management Regulations), issued under the Waste Management Act No. 24 of 2014, bans plastic bags, plastic straws and polystyrene takeaway boxes in its first phase. There is a 90% reduction in lightweight, single-use plastic bag usage when 2020 is compared to 2018 data. There is a lack of associated legislation to manage recyclable material and to support recyclers, in particular:

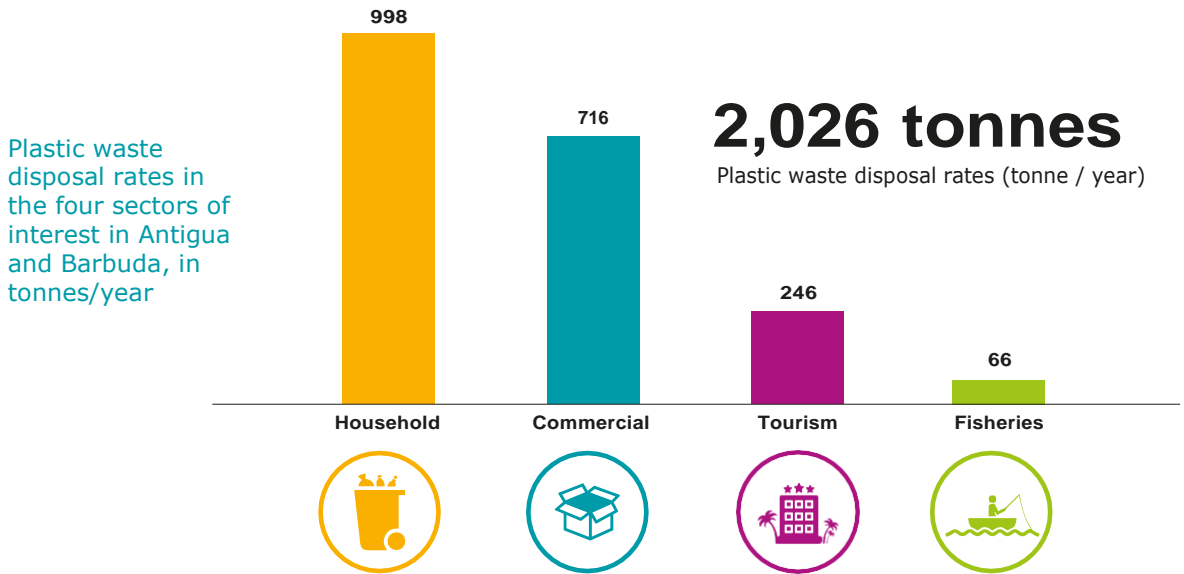
- There is a failure to manage legacy plastic material dumped into unsanitary landfill, stockpiled or leaked into the environment.
- The nappy (diaper) ban was put on hold, as an alternative was not available.

Order 15 of the Waste Management Act No.24 of 2014 - phase-out of single-use plastics in Vanuatu;

Phase 1: shopping bags, plastic straws, polystyrene takeaway boxes;
Phase 2: plastic cutlery, plastic plates, plastic cups, plastic stirrers, plastic flowers, plastic egg trays, red mesh nets and Styrofoam trays for fruit packaging; Phase 3: Phase-out of disposable nappies (diapers).



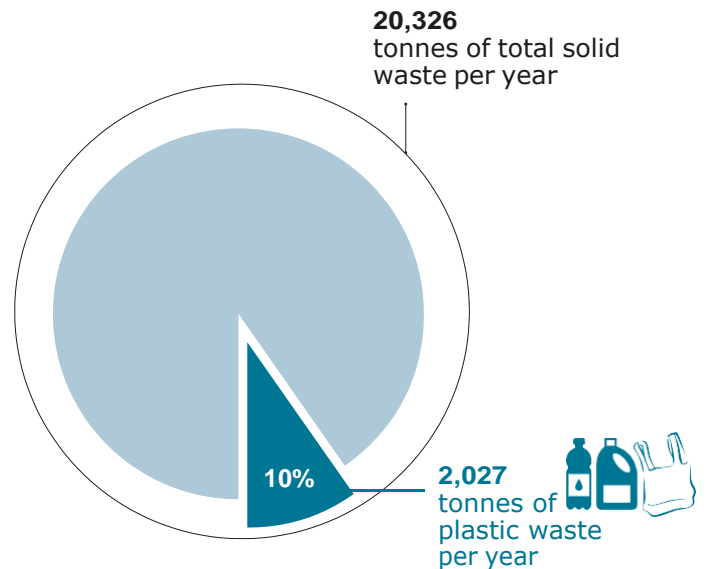
WASTE MANAGEMENT



FINDINGS

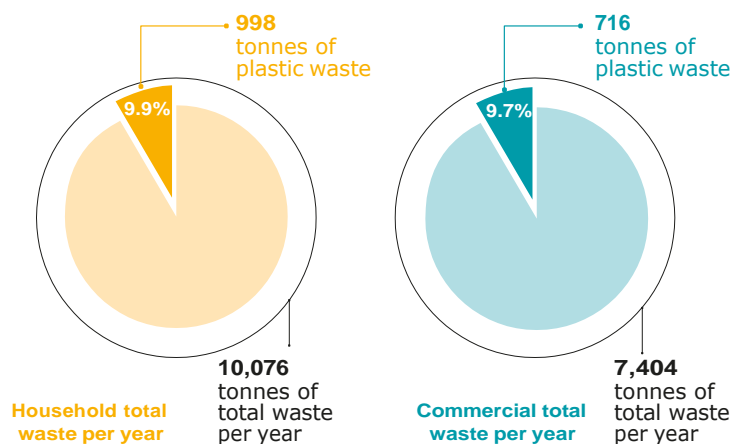
1. Audit findings

Overall, 20,326 tonnes of solid waste are disposed of in Vanuatu annually, of which around 2,027 tonnes are plastics. The tourism sector, particularly air and sea-based tourism (cruise and yacht), are significant contributors to plastic waste. On daily basis, air tourist contribute 86 grams of plastic per person per day and sea tourists 1kg of plastic waste per tourist per day, whereas households contribute 1 gram per person per day.



2. Household and commercial

- Households dispose of **10,076 tonnes** of waste per year of which **998 tonnes** are plastics.
- Commercial business dispose of **7,404 tonnes** of waste per year of which **716 tonnes** are plastics.



- In commercial premises, the most common type of plastics disposed of is **LDPE** in the form of **single-use soft plastic packaging**, whereas in homes the top items include **takeaway containers and other household items**.
- Vanuatu commercial premises dispose of 15 grams of plastic waste per employee per day.
- Vanuatu residents dispose of 9 grams of plastic waste per person per day.
- More waste that is plastic is disposed of in Efate than in Espiritu Santo, in both sectors.

Around 10% of both residential and commercial waste is plastic.

5% of plastic waste generated by the commercial sector is being burned.

Soft plastic packaging and takeaway food containers are the most common type of plastic waste in these sectors.

3. Tourism

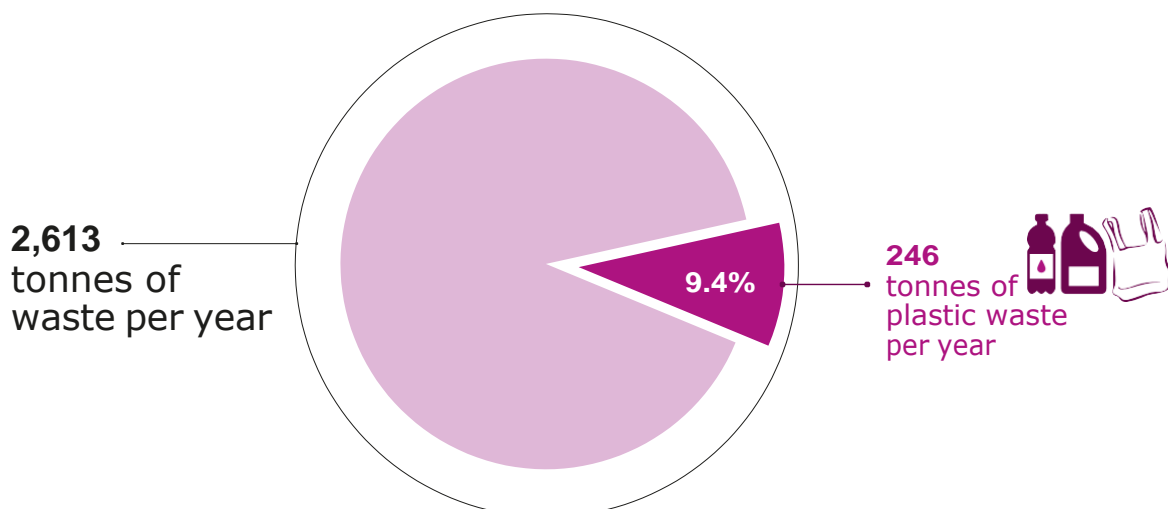
- Overall, the tourism sector disposes of **2,613 tonnes** of waste per year of which **246 tonnes are plastics**.
- Tourists generate **more plastic waste** than the residents and commercial businesses per capita per day.
- Land-based accommodation is responsible for **85%** of the tourism sector's waste disposal.

The most common polymer type disposed of by the tourism sector is **PET (29.5 %)**.

9.4% of tourism waste is plastic.

Tourists generate almost 1 kilogram of plastic waste per day.

More than half of the waste disposed of by the airline subsector is plastics (56%).

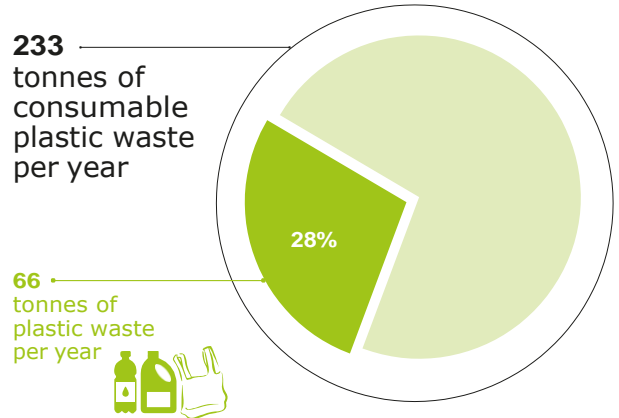


4. Fisheries

- Almost half of Vanuatu households engage in fishing activities.
- The fisheries sector disposes of **233 tonnes** of **consumable plastic** waste annually of which **66 tonnes are plastics**.
- Fisheries waste contributed **3.3%** of all plastic waste generated in Vanuatu.
- **90 tonnes of consumable** plastic are estimated to be leaked each year, which is more than that disposed of or captured.
- The most common plastic material disposed of is **PET** in the form of **plastic water bottles**.
- APWC calculates that annual fishing gear imports, including fishing nets, hooks rods and other gear, is equivalent to **31.7 tonnes** of which **6.33 tonnes is lost at sea annually**.
- Based on fishing fleet numbers, **6.9 tonnes of fishing gear** are lost at sea annually.

Plastic waste generated by the fisheries sector comprises **28%** of all fisheries waste.

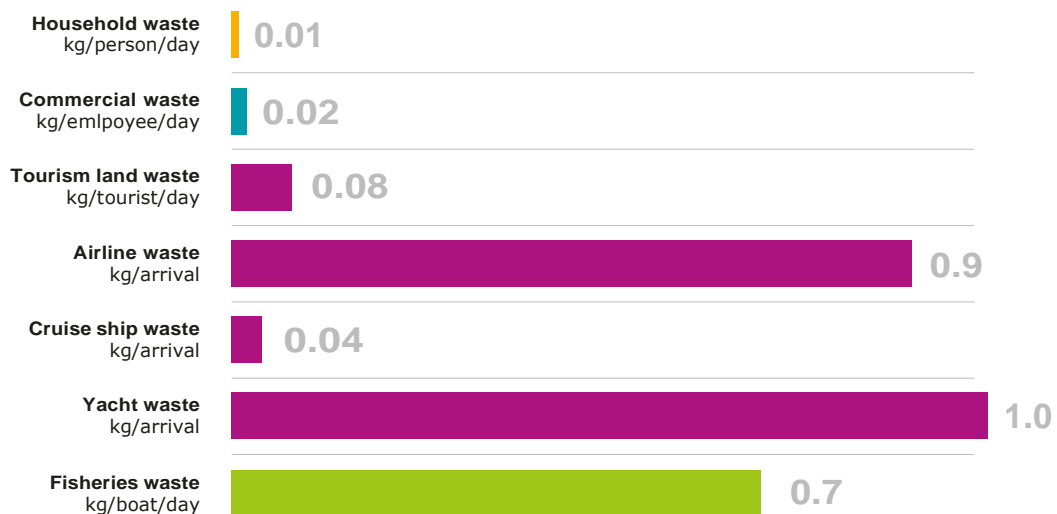
The Vanuatu **fishing fleet sheds 275 kilograms of microplastics** per year.



Current fisheries regulations do not allow provision for marking (ID) fishing gear.

5. Plastics disposal contribution per sector

During 2019, the overall plastic waste disposal rate, across all the sectors – household and commercial, tourism and fisheries, was estimated at around **2,026.5 tonnes per year**. Figure 2 presents the disposal rate in tonnes and disposal percentage share by polymer type per sector. The most common plastic items in Vanuatu waste are single-use soft plastic packaging (LDPE), PET water bottles and Styrofoam packaging (PS).



PLASTIC LEAKAGE

Overall, we estimated that **58.8%** (95% credible interval: 19%–82%) of imported plastic was leaked or held in long-term reservoirs away from landfill in Vanuatu; this equates to **2,846 tonnes**.

Overall plastic leakage per polymer from the household and commercial, tourism and fisheries sectors

	Leakage percent (95% credible interval)
PET (1)	49% (9%–72%)
HDPE (2)	67% (28%–92%)
PVC (3)	56% (13%–87%)
LDPE (4)	41% (3%–67%)
PP (5)	64% (29%–88%)
PS (6)	55% (11%–79%)
Other (7)	76% (42%–92%)
Overall	58.8% (19%–82%)

Plastic leakage per sector

