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PLASTIC WASTE FREE ISLANDS

Synthesis of Plastic Pollution Policies

Samoa



Current status of the country

Samoa is an archipelago in the central South Pacific Ocean, approximately halfway between New Zealand and Hawaii. In 2016 the population was 195,979. Samoa's economic growth is driven by tourism, agriculture, fisheries and trade, supported mainly through private remittances from overseas (25% of GDP) and development assistance (10% of GDP). Services provide 88% of paid employment, including public administration, wholesale and retail trade, transport, accommodation and restaurants. Of Samoa's total imports, 27% is food such as chicken legs, sugar and mutton. However, low-cost and low-quality food imports often displace locally produced food and are transported in plastic packaging.

International relations

Samoa is a member of the Pacific Island Forum, the Secretariat of the Pacific Community (SPC), the South Pacific Regional Environment Program (SPREP), the Regional 3R Forum in Asia and the Pacific, the World Trade Organisation (WTO) (2012) and the United Nations (UN).

Policy measures

Samoa has a **strong legislative framework** for solid waste management. It has developed several national legislations and policies that address solid waste management and control of pollution: *Waste Management Act 2010* – solid waste collection and disposal including hazardous waste; *National Waste Management Strategy 2019–2023* – governs solid waste management from households and businesses, including chemical and hazardous waste; *Land, Surveys and Environment Act 1989* – outlines provisions and penalties for littering on public and private land; *Marine Pollution Prevention Act 2008* – covers marine pollution, including disposal or incineration of waste at sea and ballast discharge; *Water Resources Management Act 2008* – covers pollution of water supplies, such as rivers lakes and boreholes; *Waste (Plastic Bag) Management Regulations 2018*; *Waste Management (Importation of waste for electricity and energy recovery) Regulations 2015* – plastic materials ban for manufacturing, exportation, selling or distribution in Samoa, particularly in shopping bags, packing bags and straws.

Roles and responsibilities

Waste management in Samoa is the responsibility of multiple stakeholders, including the Samoa government, international partners, private entities and local groups. Traditionally, local governments oversaw managing solid wastes. Still, with the ever-increasing waste disposal rates, various institutions have become involved in one or more aspects of the management chain, especially awareness-raising and outreach, recycling and recovery regulations, and source reduction by intervention at production and consumption levels. Several governmental bodies in Samoa have responsibilities for waste management, the most relevant being the Division of Environment and Conservation (DEC), which falls under the Ministry of Natural Resources and Environment (MNRE). DEC is responsible for overseeing, coordinating and implementing the various waste and pollution legislations.

In addition, the village councils have responsibility for solid waste management within their local areas. They provide household waste collection and recycling services, manage and operate landfill sites, and enforce waste management laws at the community level.

Waste management situational analysis

Samoa has two semi-aerobic disposal facilities. The Tafaigata Waste Disposal Site is located on the more populated Upolu Island. Recyclable materials are mixed in and disposed of as general waste, with no specific collection of plastics for recycling at the landfill itself. Instead, waste-pickers are operating at the site recovering scrap metal and bulky waste items. The other disposal facility is at Vaia'ata on Savai'i Island, which has another semi-aerobic waste landfill structure for solid waste disposal. However, it has no recycling component, but there is an area to stockpile reusable and recyclable waste.

The Samoan government has ensured that essential waste management services are provided to all households through a free, countrywide collection and disposal service delivered by private contractors. However, almost **50% of households are not taking advantage** of these publicly funded services. The commercial sector is responsible for disposing of its waste, either transporting it directly to the landfill or using private contractors.

Waste management budget and levies

The cost of waste management in Samoa represents 12% of MNRE's annual budget and 0.47% of the government's national budget in 2019. The only source of revenue for the government from solid waste management is through tipping fees collected at the Tafaigata waste disposal site.

These fees, however, fall far below expenditure levels and only cover 3% of the waste management budget. The remainder of the waste budget is covered by tax, grants and other sources from the Samoan government.

Resource recovery and recycling

As witnessed in other Pacific Island communities (PICs), significant progress toward plastic recycling in Samoa is constrained mainly by **low trade volumes and diminished international market values**. Therefore, there are no local plastics recyclers in Samoa. One private company collects and stockpiles plastics for overseas recycling; it collects 11.2 tonnes of PET bottles annually through collection cages at supermarkets and schools.

Legislation – Plastic ban

Samoa introduced a plastics ban in 2018 through the Waste (Plastic Bag) Management Regulations (MNRE), which take effect over several stages. Since 2019 this regulation prohibits the import, manufacturing or sale of plastic shopping bags, plastic packing bags and straws and banned 2020 polystyrene (Styrofoam) food containers and cups. In a staged process, other plastic materials will subsequently follow in the ban, year to year, affording businesses and members of the adequate public time to prepare. Exemptions to the ban are currently granted for various food-safety packaging. Despite the ban, some materials such as **plastic bags and plastic straws remain in community circulation**.

Waste disposal by sectors

The overall plastic disposal rate in Samoa for 2019–2020 was 2,370 tonnes or 0.01 kilograms per resident per day. It is estimated that roughly 53% of imported plastic was leaked or held in long-term reservoirs away from landfills, equating to approximately 1862 tonnes per year. Plastic makes up 14% of households' waste disposal (1862 tonnes/year), predominantly PET and LDPE, 24% and 23%, respectively.

Commercial businesses dispose of 5,282 tonnes of waste per year; plastics make up 22 % of commercial waste, 37% (PP) and 17% (PS).

The tourism sector contributes to 20% of all plastics waste generated (163 tonnes/year); airlines 88 tonnes, cruise ships 5.9 tonnes and yachts 0.02 tonnes.

Plastic represented 11.5% of fisheries waste disposal (1.09 tonnes/year), predominantly PET (55.5%) and PS (33.3%). Roughly 9 tonnes of fishing gear are lost at sea each year based on imported fishing gear.

Key gaps and recommendations

**All sectors:
Lack of waste
segregation and
recycling.**

Implement legislation and associated best practice guidelines to establish compulsory source-segregation and disposal of recyclables.

All sectors should conduct source segregation to ensure organics and plastics are recovered. The waste separation will decrease the volume of waste in the landfill, increase its lifespan, and decrease leakage into the environment. 55% of households expressed their willingness to segregate their waste even if there was no economic incentive and 96% expressed willingness to segregate when financially compensated. Better support to assist the private recycling sector to aggregate materials – a separation-at-source bag system for households, institutions and businesses for PET, HDPE and glass materials would decrease the number of recyclables currently being disposed of at landfills.

Tourism facilities are not encouraged to segregate waste. Therefore, implement source segregation at tourist locations such as air and seaports, tourist attractions and accommodation. Encouraging the use of reusable materials in tourist accommodation facilities could further reduce waste going to landfills. For example, single-use toiletries should be replaced with refillable containers. Besides, hotels and resorts could install water-refilling stations and ban single-use plastic water bottles. A licensing system should be implemented, where only hotels and resorts with effective waste reduction and management practices get a licence renewal.

Implement container deposit legislation (CDL) or an extended producer levy system to capture other recyclable material.

IUCN strongly suggests that the government financially supports recycling initiatives through a Container Deposit Levy (CDL) system. A Deposit Return System ensures 1) that plastic bottles that are currently going to the landfill are collected and sent for recycling; 2) bottles that leak into the environment are reduced. Given that PET is one of the main items lost to the environment, implementing a container-related initiative, such as a CDL, could place a value on plastic PET bottles and prevent leakage. It has been assumed that a CDL achieves approximately 80% recovery on the containers destined for leakage. Besides, implementing a CDL system could provide additional income, employment opportunities and waste management solutions to the overall solid waste management systems.

In addition, a system such as CDL, Advance Recycling Fee (ARF), Advance Disposal Fee (ADF), and an affordable user-pay system can be implemented. CDL collection bins should be accessible, especially for fishing marinas located considerable distances from the main city areas. A special retrieval program for fishing nets should be implemented to prevent abandoned, lost, and discarded fishing gear.

**All sectors:
Lack of overview
on important
plastics and in
country
manufactured
bottles.**

**Financial disincentives
for plastics imports and
in-country
manufacturers.**

Under the Plastic Ban, introduce a permit or licence to import approved plastic items (or alternatives). The licence would control the number of importers and makes it easier to monitor and collect information from licensed importers as one of the licence conditions. the introduction of levies on the import of plastic bottles and plastic bottles performs for a large number of water bottling companies in Samoa. Additionally, only imported plastic containers attract levies, not those manufactured in the country. Therefore, the levy should be extended to in-country manufacturers.

**Household and
commercial sector:
Lack of
enforcement of
existing laws –
littering, illegal
dumping and
burning.**

**Strict enforcement of
existing legal fines and
penalties for littering,
illegal dumping and
burning to effect
behavioural change.**

The Samoan government has ensured that basic waste management services are provided to all households through a free, countrywide collection and disposal service delivered by private contractors. However, this audit indicates that almost 50% of households are not taking advantage of these publicly funded services.

**Introduction of an
appropriate user-pay
system that promote
waste minimization at
source.**

The Samoan government has taken the lead in ensuring basic waste management services are provided to all households through a free, countrywide collection and disposal service delivered by private contractors. However, almost 50% of households are not taking advantage of these publicly funded services. Free collection services to households discourages waste reduction at source and does not support user-pays and polluter pays principles. Indtrocution of a prepaid-bag system; already used in Vanuatu and Kiribati. The generated revenues supports operational costs to manage the waste.

Tourism sector:
No legislation, policies or strategies require the tourism industry to minimise the amount of single-use plastics used on a daily basis and source-segregation.

Requirement of a waste management plan to obtain a license.

Large businesses, including airlines, hotels and resorts, are not required to separate or recycle the substantial quantities of plastic waste brought into Samoa for international tourist services. A licensing system should be implemented, where only hotels and resorts with effective waste reduction and management practices get a licence renewal.

Tax incentives must be introduced to hotels and resorts to establish water refill stations.

Compulsory water refilling and water filter stations in large hotels and resorts could reduce the number of single-use water bottles provided to guests daily.

Fishing Sector:
There are currently no guidelines for the marking of fishing gear.

Implement an ID system for fishing gear and reporting/tracking/recovery of lost gear through the current fishing licences.

Developing a fishing-gear recapture scheme to financially incentivise fishers to retain and surrender damaged and/or lost fishing gear for recovery. A compulsory tracking method for fishing gear should be implemented for all gear that poses a danger to marine life and traffic (i.e., nets, mobile FADs, fish traps). In addition, all lost gear should be reported. These schemes should be implemented using a gear ID and recovery system as a requirement for a fishing licence. A detailed waste management plan should also be part of the conditions for a fisheries licence. It is vital that Samoa adheres to and remains compliant with the waste regulations of MARPOL.



Conclusions

Several PICs are investigating the viability of establishing a regional recycling hub (Scoping Study for the Regional Recycling Network for the Western and Eastern Pacific Region) whereby recyclable material from several PICs can be collated. This reduces the significant challenge of moving materials to external markets, mainly due to low trade volumes and low international market values, by increasing economies of scale and bargaining power. Samoa's private recycling sector is more developed than in other PICs and Caribbean SIDS and forms a solid foundation to expand further and develop plastic waste recycling practices.

IUCN strongly suggests that the government financially supports recycling initiatives through a Container Deposit Levy (CDL) system.

Using the above gaps and recommendations, Samoa should consider prioritising and assessing the costs and benefits of each recommendation and its potential for impact. Implementation of the recommendations listed here should be the first set of priorities for the country. Although the detailed report listed many more, those in this summary are deemed by IUCN to be the most important and will yield the best results for each of the three sectors.

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Editor: Mireia Villalonga

Layout by: Mireia Villalonga