

Solomon Islands

Status: Solomon Islands is a group of six major islands and 900 small islands, stretching across 28,400km² with a combined coastline of 5,313km. Solomon Islands is a Least Developed Country. It is eligible for Australian Government ODA.

Population: The population of Solomon Islands in 2016 was estimated at 639,418 (GoSI, 2017), distributed over 10 provinces.

Accessibility: Flights from Brisbane, Nadi and Vanuatu.

Statistics around Waste (including plastic waste data): Solomon Islands has a combined coastline of 5,313km, and a recent study (Jenna et al., 2015) indicates a daily plastic waste generation of approximately 63.2 tonnes (t). An estimated 55.8t are mismanaged daily and are predicted to enter the marine environment through release from uncontained disposal sites or by direct littering.¹ An estimated 20,394t of plastic waste was released in the waters around Solomon Islands in 2010. If not addressed, the amount is expected to rise to 176,589 t by 2025.

	Coastal population	Waste generation rate [kg/person/day]	% Plastic in waste stream	% Inadequately managed waste	Waste generation [kg/day]	Plastic waste generation [kg/day]	Inadequately managed plastic waste [kg/day]	Plastic waste littered [kg/day]	Mismanaged plastic waste [kg/person/day]	Mismanaged plastic waste in 2010 [tonnes]	Mismanaged plastic waste in 2025 [tonnes]	
Solomon Islands	618,678	0.79	13	86	488,756	63,294	54,608	1,266	0.090	20,394	176,589	

Source Jambek 2016

Of the 63.2t of plastic generated each day, approximately 7t may comprise PET or high-density polyethylene (HDPE) plastic, eligible for recycling under a container deposit scheme (CDS). Based on an average reduction rate of 40% in mismanaged waste with a CDS in place, approximately 2.47t of PET and HDPE plastic could be recycled each day. This could increase to an 80% or above reduction rate, depending on access to recycling collection services and viable markets, among others. Nonetheless, a 40% reduction in mismanaged PET and HDPE would result in approximately 19,491t of plastic becoming marine debris each year.

Research carried out in 2020 by group of scientists and environmentalists in Solomon Islands² found that there was a widespread occurrence of microplastics detected in all surface water and sediment samples collected at both Vanuatu and the Solomon Islands coastal waters.³

Further benefits attributed to a CDS are possible with a reduction in annual damage costs to the 318 local fishing vessels of Solomon Islands (approximately US\$2,472). If beaches were cleaned up, over US\$229,000 would be saved, of particular relevance to the amenities of coastal communities and the tourism sector.

Most provinces have some form of waste collection system in place, coordinated by the respective provincial departments under the Environmental Health Division. Approximately 60% of households in Honiara and 12% of the rest of the population have access to collection services. Plans to improve waste

¹ The outcome of mismanaged plastic can be divided into three groups: plastic that remains on the surface of the sea as floating debris, plastic that sinks to the ocean floor, and plastic that washes up on beaches. A CDS that recovers 40% of HDPE and PET plastic bottles in Solomon Islands may achieve the following reductions in marine debris each year: n 135 t in floating plastic n 632 t in sunken plastic n 135 t in beach plastic.

² The study is part of Commonwealth Litter Programme (CLiP), a project on how the increasing abundance of marine litter is impacting the environment, human health and economies in the South Pacific. Data indicated that microplastics were present in a range of food items from terrestrial to marine sources at different concentrations for crabs, fish and Yellow Fin Tuna with an average number of 1.7 ± 2.27, 2.9 ± 4.6 and 4.3 ± 5.13 items per individual.

³ <https://earthjournalism.net/stories/solid-waste-threatens-fragile-paradise-in-gizo-solomon-islands>.

management in the provinces include a waste management strategy for Choiseul Province and a waste management action plan for Taro Island. In Honiara, the collection of household waste is delivered by contractors employed by the city council. The city is divided into residential zones and contractors generally use 3t open trucks for collection. Collection, however, is often unreliable and waste is often left uncollected on the street for long periods of time. A collection service generally is not provided in the settlement areas around Honiara and, more often than not, waste is dumped into drains, eventually washing into streams, rivers, and the ocean during rainy periods.

There are no household recycling collection services. There are currently no sanitary landfills and the largest disposal site is the Ranadi landfill in Honiara, which is located on flat, reclaimed land. Adjacent to mangrove wetlands, the site receives residential, commercial, and industrial waste, collected by Honiara City Council. There is no waste segregation at the landfill, although waste pickers recover scrap metals and other materials of value. The site has a warehouse and baler to compress and store PET plastic.

Honiara is the main recycling hub, where five recycling companies provide services in marked collection vehicles at which people return their aluminium cans for a redemption fee. The batteries are transported to the Solomon Island Power Warehouse for payment. While aluminium cans and ferrous and nonferrous metals are exported, a PET bottle collection project in Honiara has met challenges in accessing the international recycling market. The project is now under the responsibility of the Honiara City Council.

Reuse initiatives for a range of other materials exist across the island nation. PET bottles are reused for lemonade drinks and arts and crafts to sell at markets; and some PET bottles are used as containers for growing vegetables.

A key factor that explains the poor state of waste management is insufficient budgetary support from the province or the national government. Experts and concerned community members believe that budgets – and regulations – need to keep up with changing times.⁴

Legal/Policy framework to address single use plastics : Solomon Islands does not have any Single Use Plastics legislation or policy. *National Integrated Waste Management and Pollution Control Strategy 2017-2026* but this does not address plastic waste in any detailed manner.

The *Ministry of Environment, Climate Change, Disaster Management and Meteorology* administers *Environment Act 1998* through its Environment and Conservation Division. The Act provides for the protection and conservation of the environment by regulating the discharge of pollutants to air, water, and land; the transport, collection, treatment, storage, and disposal of waste; and the promotion of economically viable recycling, reuse, and recovery.

Honiara Refuse Disposal By-Law 1994 directs Honiara City Council to plan and implement solid waste management (SWM) systems, and Honiara Litter By-Law 1994 prohibits littering in public places. The Council also shares responsibility for environmental conservation and other public schemes (e.g., medical, roads) with the remaining nine provincial governments. While Local Government Act 1996 decrees that the Minister for Home Affairs establish local councils, they are yet to be so.

	Single Use Plastic Policy	Dedicated Single Use Plastic Orders, Acts and Regulations							Economic Instruments to internalise costs					Recycling	National Campaigns targeting SUP	R&D Alternatives
		Plastic bags	Polystyrene plates	Straws	Styrofoam food Containers	Cups plates cutlery	PET	Plastic ice blocks pouches nappies	Container Deposit Scheme	Levy Plastic Bags	Duty SUP	ARDC	Single Use Diapers			
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⁴ <https://earthjournalism.net/stories/solid-waste-threatens-fragile-paradise-in-gizo-solomon-islands>

Enforcement and compliance: Plastic pollution is widespread and suggests that enforcement and compliance measures are not effective. The key barriers are lack of budgetary support, capacity to enforce, non prosecution of littering offences, cultural attitudes toward waste.

Governance and organisation: Solomon Islands nine provincial governments were established under the Provincial Government Act 1997, allowing them to issue ordinances and policies and provide services to rural areas. These include waste collection and disposal services and shipping facilities. Honiara City, the tenth province and only council, was established under Honiara City Act 1999. It assigns the City Council the responsibility for waste collection and disposal.

Gizo Province's existing environment ordinance which provides provisions to regulate solid waste management. Single use plastics are prohibited at the Gizo market under the existing ordinance and no one is selling single use plastic, you will find baskets made from coconut leaves for customers to buy and use as shopping bags. However, this rule does not apply to the retail and wholesale shops as the existing ordinance does not allow the Council to enforce this rule on the shop owners. We proposed a budget to hire a legal drafter to review our ordinance but our provincial government was not very supportive of this proposal," Gizo town Clerk Charles Kelly said.⁵ He said Gizo Town is growing at a fast pace and it requires proper regulations to accommodate and address issues that are approaching. Projected population by province 2010 – 2025 shows that the population of Western province will reach 107,023. The calculation is based on the birth rate per day in the country.

Public Awareness- communities/villagers:

Western Province Environmental Health Inspector Marilyn Vana pointed out that people's attitudes need to change. "Most people see rubbish as something that you will never reuse for other purpose. They just use it once and when the value is gone, they throw it away. Rubbish is rubbish and getting rid of the rubbish by any means is what people want. They see rubbish as the yuckiest thing in life," she said. "Throwing rubbish anywhere and everywhere is part our cultural behavior. People just throw rubbish anywhere and [assume] nature like rain and floods will take care of it. Behavior and attitude needs to be changed, however, it's very difficult to change people's attitudes."⁶

The *Eco-Bag Campaign Project* implemented under the MECDM was established in response to the growing impacts of plastic bags on the aquatic and marine environments. Studies have shown plastic bags make up 12% of wastes that will end up at the Ranadi landfill or 10% of wastes washed into the ocean. The main objectives of this project are to raise awareness of the impacts of plastic bags on the environment, minimise the use of plastic shopping bags and promote the use of ecofriendly bags as an alternative to plastic shopping bags. The major components of this project include education and awareness, eco-bag design and product, implementation and monitoring and evaluation.

There are NGOs active in single use plastic initiatives. Positive Change for Marine life have partnered with *Plasticwise Gizo* to provide community education programs, reduce plastic production and consumption, implement waste collection and recycling, and develop economic opportunities turning #WastetoWealth.⁷

The Mataniko river cleanup (Honiara and Guadalcanal Province) and rehabilitation project emerged as a result of continuous dumping of waste into the Mataniko river system, which has contributed to major pollution in the river and extending to the coastal sea front of Honiara city. This has resulted in negative environment, social and economic impacts on Honiara city. The source of this problem is directly related to uncontrolled waste disposal by the communities and poor garbage collection by the relevant authority

⁵ <https://earthjournalism.net/stories/solid-waste-threatens-fragile-paradise-in-gizo-solomon-islands>

⁶ <https://earthjournalism.net/stories/solid-waste-threatens-fragile-paradise-in-gizo-solomon-islands>

⁷ <https://pcfml.org.au/blog/solomon-islands-project-launch>

due to poor road condition or lack of road access to certain communities within the catchment of the river. The objective of the project is part of the MECDM corporate plan objective, which is a clean, healthy and unique environment for safe, sustainable and resilient Solomon Islands communities. The project location will be focused mainly within the catchment of the Mataniko River.

Public Awareness schools and involvement of youth Eco-School project focus is on waste minimisation and develop the capacity of school teachers to promote and raise environmental awareness for school children for waste minimisation, particularly the 3Rs concept. The project is piloted in three private schools and seven HCC schools. The challenges include a lack of consistent support from school teachers and principals, the sense of township, additional workload for teachers, limited financial support from school administrations and human resource constraints to provide consistent project monitoring and evaluation by HCC.

Tourism: Western Province is described as the tourist destination in Solomon Islands. It has beautiful islands with white sandy beaches, pristine forests and marine resources. Gizo is the largest town in Western Province of Solomon Islands with a population of approximately 10,000 people⁸; the number is increasing every year. Gizo is a one-stop small town with close to 21 Chinese retail and wholesale shops, and a few liquor shops. It's where both the provincial administration and other national government institution offices are located. However, no one seems responsible to keep the town clean except the Gizo Town Council. At the end of each day, plastics, empty aluminum drink cans, disposable takeaway plates and cups can be seen everywhere within the town.

Private Sector: Since the Western Provincial Government (Gizo) is at the forefront in terms of tourism in the Solomon Islands, it is in the process of preparing protocols to ban plastic bags. These are considered now to be at an epidemic proportion.

Development partner initiatives: In 2021 Clerk of Gizo Town Council and the Director General of the Secretariat of the Pacific Regional Environment Programme (SPREP) signed a Memorandum of Understanding to implement an innovative and sustainable solution for Solomon Islands' organic waste and recyclables management. The MoU provides a framework of cooperation, project actions and responsibilities for both SPREP and the Gizo Town Council to work in partnership. Project actions will include the design and implementation of an organic waste processing program in Gizo that will collect and compost all organic waste generated at the Gizo Central Market. The project investment will introduce an Advance Recovery Fee & Deposit (ARFD) system and legislation in the Solomon Islands to improve the recycling rate in the country and assist in the establishment of a recyclable collection center in Gizo.⁹

A significant level of support has been provided to improve waste management under the first of two phases of the Promotion of Regional Initiative Solid Waste Management project (J-PRISM I), funded by the Japan International Cooperation Agency (JICA).

The Project for Establishing a Separate Collection System of Household Waste in Cooperation with Public and Private Sectors Based on New 3Rs (Reduce, Reuse, Recycle and Return) Concept (LEAF Project) Under the implementation by the HCC, a Japanese non-profit organisation, Learning and Ecological Activities Foundation for Children (LEAF) has formulated a project in cordial partnership with JICA, for piloting household solid waste management in Honiara for a period of three years (April 2014–March 2017). The activities of this project are to support the basic 3R concept through J-PRISM by introducing the 3R+ principle with returning the waste to its merchandise place. The concept is the Public-Private Partnership in which the state and the private sector (in this case, there is a committee called the Honiara Public-Private Cooperation Committee) establish a business arrangement (partnership) cooperatively and operate. The project targets the establishment of a 'separate collection system of household waste' on a new 3Rs basis and also the reduction of garbage and the effective practical use of resources.

⁸ According to a census carried out in 2009, Gizo has a population of 7,177. In 1999, Gizo's population was 5,323.

⁹ <https://earthjournalism.net/stories/solid-waste-threatens-fragile-paradise-in-gizo-solomon-islands>

Mataniko Litter Boom Demonstration project was a joint initiative between SPREP and MECDM to collect baseline data on the amount of waste flowing down the Mataniko River. The project was also part of the Mataniko river clean-up and rehabilitation project and provides a baseline from data collected using the boom (Figure 11). It is expected that such an initiative will be extended to major rivers and streams for Honiara city after increasing the awareness and education of the communities.

Summary Overview

- Currently no laws in place to regulate single use plastics and no plastic recycling schemes. The Solomon Islands Government has been considering ban since 2020.
- Government have asked for assistance to develop a SUP regulation to ban certain single use plastics asap and in advance of Pacific Games 2023 so the time to do this couldn't be better.
- Excellent opportunity to use local knowledge and solutions (plastics to cooking gas) for work in Solomons and replication to other POLP pilot countries (see **Annex 1**)
- Potential to utilise local champions promoting education initiatives and support communities to turn plastic waste into handicrafts (PlasticWise Gizo). Will help address POLP GEDSI indicators.
- Potential to address single use plastics in an integrated approach with ADB investment into *Honiara Sustainable Solid Waste Management Plan*, POLPs commitment to support a plastic free South Pacific Games 2023 and SPREP PacWaste Plus and GEF ISLANDS initiative.
- Achieving results may be challenging but due lack of awareness and regulation as well as the volume of waste generated, POLP sees great potential for positive impact in the Solomon Islands by initiating activities addressing objectives 1 and 2 (though likely opportunities to work on all 4 objectives).

Annex 1

Climate change and its Effects on the Environment—Globally & Locally

Uncontrolled littering of plastic waste & other pollutants in the Solomons especially in Honiara City & provincial capitals contributes to the increasing effects of climate change and environmental problems.

The Design and Technology Centre has developed a plastic recycling program in an effort to convert unconventional feedstocks to conventional fuels and other by products in an effort to address the issues of climate change in order to protect the environment and promote a healthy population.

Current Problems and Challenges

The Design and Tech Centre is working in conjunction with the Honiara city council & all stakeholders to address the overdue problem of uncontrolled plastic waste littering in Honiara city. We believe in working together with all stakeholders in actively cleaning up our environment because Honiara is our city, place, and home.

Our greatest challenges are :

- *Collection & delivery for processing*
- *Capacity building— human resource, the need for technical support and financial assistance.*
- *capital to keep it sustainable and economically viable*
- *encourage all plastic users to do things right.*

Planned Solutions to Honiara City's Challenge

1. Networking & collaboration with Honiara City Council, Solomon Islands Government, Donors, NGOs, Stakeholders, Schools & Tertiary Institutions.
2. Create a Recycling HUB in Solomon Islands and the region.
3. Established Mechanisms in place for recycling of plastics/polymers, E waste, Waste oil.
4. Pyrolysis System — Innovative appropriate technologies, MFAT (NZ) one year Pilot project , clean energy from plastic waste. (Waste 2 Energy)
5. Develop Behavioural Insights /Attitudes Honiara city will host the Pacific games in 2023, All visitors both now and future guests will appreciate a clean & healthy environment.
6. Currently construction is underway to build a Storage facility and Work place for waste management / plastic recycling at the centre . Very slow progress due to financial constraints (see photo below)

