

Kiribati

33 coral atolls and islands are dispersed among the three groups that form Kiribati, which are the Gilbert, Line, and Phoenix islands. Covering a land area of 810km², the island groups are spread over approximately 3.5 million square kilometres in the Central Pacific Ocean. The nation's capital is South Tarawa, situated on the Gilbert Island group

Population: Kiribati's population of 110,136 (GoK, 2015) with 50 % living in South Tarawa.

Accessibility: Flights in from Fiji and from Honolulu and Tarawa to Christmas Island.

Statistics around Waste (including plastic waste data)

	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]	
Kiribati	94,487	0.79	13	84	74,645	9,666	8,148	193	0.088	3,045	6,977	

Source Jambek 2016

An estimated 13% of Kiribati's waste stream is comprised of plastic, and a recent study (Jenna et al., 2015) indicates a daily plastic waste generation of approximately 9.7 tonnes (t). An estimated 86% of this is mismanaged daily and is predicted to enter the marine environment. Approximately 8.1 t may enter the ocean, released from uncontained disposal sites, and 0.19 t will originate from littering (i.e., a total of 8.3 t). An estimated 3,045 t of plastic waste was released into the waters around Kiribati in 2010, becoming marine debris. If not addressed, the amount is expected to rise to 6,977 t by 2025.

Preliminary data modelling suggests that 80% of PET and high-density polyethylene (HDPE) plastic are eligible for recycling under a container deposit scheme (CDS), a potential of 300 t per annum. The remaining 2.7 t of non-CDS plastic and other plastic types (e.g., plastic bags/film and rigid containers) would continue to enter the marine environment. A CDS that recovers 40% of HDPE and PET plastic bottles in Kiribati may achieve the following reductions in marine debris each year: n 20 t in floating plastic n 94 t in sunken plastic n 20 t in beach plastic.

Pelletised polyethylene terephthalate (PET) is imported for the onshore production of PET bottles.

Recyclables collected at the community drop-off facilities are transferred to the Kaoki Mange Waste Recycling Facility that is located adjacent to the Materials Recovery Facility on the main road to Betio Port. A 10 m by 8 m hanger facility provides cover for the bailer and the processing of recyclables, later to be containerised prior to transfer to the port. Collection and community centre recycling services are restricted to the main island only.

Legal/Policy framework to address single use plastics The *Customs Act 2019* Schedule 3 prohibits imports of ice-block bags, non-biodegradable nappies and single-use plastic shopping bags. The ban on single-use plastic bags includes carrier bags that are dispensed from a roll, but does not extend to green garbage bags. If the ban is effective, other extensions to the ban may be contemplated¹.

Single Use Plastic policy: No Single Use Policy. In 2017, the Government of Kiribati committed to ban the importation of plastics working with the Customs Office and Office of Attorney General² and has formed a plastics ban committee³. The initial focus of this committee is to investigate banning

¹ UoM, *Assessment of Waste Legislation in the 15 PacWastePlus Participating Countries*

² <http://web.unep.org/environmentassembly/kiribati>; <https://www.worldbank.org/en/news/feature/2019/06/02/meet-the-innovators-battling-plastic-waste-in-kiribati-raitiata-cati>

³ <https://www.mfat.govt.nz/assets/Aid-Prog-docs/Evaluations/2019/MidTerm-Evaluation-of-the-Kiribati-Waste-Mngmnt/Mid-Term-Evaluation-of-the-Kiribati-Waste-Mngmnt.pdf>

single-use plastic shopping bags, with this to expand to icebags and disposable plastic nappies at a later stage.

	Single Use Plastic Policy	Dedicated Single Use Plastic Orders, Acts and Regulations							Economic Instruments to internalise costs		Recycling of Plastics
		Plastic bags	Polystyrene plates	Straws	Styrofoam food Containers	Cups plates cutlery	PET	Plastic Ice blocks pouches nappies	Container Deposit Scheme	Levy Plastic Bags	Recycling
Kiribati		○ ⁴						○			

Economic Instruments: *Special Fund Waste Recovery Act* of 2004, grants the Minister of the Environment the authority or power to impose a levy on any imported items that can be recycled. This is the basis for the operation of the *Kaoki Maange* recycling programme supported by the *Special Fund Regulation of 2005* that sets up the special fund, which the deposit is paid into.⁵ *Kaoki Maange* is a deposit scheme for PET bottles, aluminium cans and lead-acid car batteries. The scheme levies \$0.05 AUD when PET bottles are imported, with \$0.04 AUD refunded when bottles are returned to a designated centre. Reports prior to 2019 indicated a 90 per cent recovery of materials covered under the deposit scheme⁶. Given the success of this project, the authorities are considering extending it to include vehicles. Imported materials continue to enter Kiribati; but arrangements for exportation for recycling appear to have ceased⁷. The 2022 World Bank workshop revealed that under the *Kaoki Maange Scheme*: government was still looking for an international buyer who will accept the PET bottles.⁸

The *Green Bag Programme* is a user-pay system. The purchase price of garbage bags is A\$0.20 per bag, and the revenue helps to cover the cost of collection services. It is anticipated that future increases of the green bag price will fund fully the collection services.

Institutional: The *Environment and Conservation Division* of the *Ministry of Environment, Lands and Agriculture Development* administers *Environment Act 1999* (amended in 2007) and *Environmental Regulations 2001*. While the Act authorises the local councils to manage waste, the Division plans and implements *National Solid Waste Management Strategy 2007*. Together with the Secretariat of the Pacific Regional Environment Programme, the latter prepared the 2012 Kiribati Integrated Environment Policy. In addition, *Special Fund (Waste Materials Recovery) Act 2004* regulates the container deposit scheme and is administered by the Ministry of Finance.

Enforcement and compliance: Enforcement of littering laws has led to the reduction of littering behaviour from the general public according to government official presentation in August 2022 to identify investment priorities to address single use plastics. However businesses continue to import single-use shopping plastic bags and ice block bags despite the ban on these items.

Community Governance and organisation: Government has been organising mass clean ups, engaging communities, church groups, youth clubs, NGOs and the general public in clean up activities targeting beaches and roadsides to maintain the cleanliness of the beaches- public awareness raising on waste management.⁹

⁴ Customs Act.

⁵ http://www.paclii.org/ki/legis/num_act/sfmra2004357/

⁶ http://www.unecd.or.jp/content/documents/6449Country%20Report_Kiribati.pdf

⁷ <https://www.mfat.govt.nz/assets/Aid-Prog-docs/Evaluations/2019/MidTerm-Evaluation-of-the-Kiribati-Waste-Mngmnt/Mid-Term-Evaluation-of-the-Kiribati-Waste-Mngmnt.pdf>

⁸ World Bank Workshop 2022 to identify investments to address Kiribati single use plastic priorities.

⁹ World Bank Workshop to ascertain Kiribati single use product investment priorities. August 2022.

Public Awareness- communities/villagers/youths schools: Ministry of Environment, Lands and Agricultural Development (MELAD) have noticed a big difference in people's behavior – more and more people are collecting plastic waste but there is still a long way to go with plenty of waste lying around.

Burning of waste piles – at both formal and informal dumpsites – is pervasive. The largest and most heavily utilised formal dumpsite is the Tabwakea dumpsite or 'main dumpsite'. While the site was purportedly intended to receive council vehicles only, it is also utilised by members of the public for waste disposal. The site is unfenced and while a day-time watchman has been employed, it is still operating very much as an uncontrolled dumpsite.

Despite the poor apparent progress described above, consultations indicated that attitudes to waste are changing, albeit slowly. Awareness and clean-up activities have taken place, and a women's community committee has been established to discuss waste management and the use of the Green Bag. There also appears to be a relatively large interest in gardening and composting.¹⁰

In 2018, MELAD local councils, together with a team from Taiwan started a plastic/vegetable exchange program. The idea was to provide an incentive to encourage the public to help collect plastic waste instead of throwing it away. Once a week, during the four month-long school break, communities collected plastic waste in exchange for vegetables. We saw an average of nearly 60 kilograms of plastic waste exchanged in each session. When schools returned, we changed vegetables to seedlings as the incentive. The waste collection rate doubled – and eventually, tripled – and we were receiving an average of 170 kilograms of plastics per exchange. Since the program began, we (the organisations involved) have been receiving more and more enquiries about the program – and the schedule for the next exchange.¹¹

The Green Bags are widely used, collection points are getting installed, reasonable progress has been made on awareness raising and education activities and attitudes and behaviour toward waste and littering are improving. Ultimately, the Programme has reduced the amount of solid waste being improperly disposed of.¹²

Plastic Free School' Initiative aims to minimize the use of ice bags in schools in South Tarawa. The program has been very successful: within two weeks, schools started shifting away from using ice bags, to instead use water bottles (PET bottles) and cups to sell drinks.

Public Awareness- tourism: The Pacific Tourism Organisation (SPTO) completed its first virtual training on plastic waste reduction with the *Tourism Authority of Kiribati...* The workshop was delivered via pre-recorded instructional videos and live interactive sessions from 14th – 18th December 2021.¹³ The plastic waste reduction training centered on the repurposing of used plastic bottles to create jewellery and other artefacts and was conducted by SPTO creative consultant and prominent Fiji Artist, Mr Warwick Marlow, who acknowledged who acknowledged the need to integrate waste reduction mechanisms into people's everyday lives. "...Generally speaking, people are aware of what needs to be done with regards to ocean plastic but they don't have a clear pathway to become a part of the process, with this training I hope to educate people on how something as simple as a plastic bottle can earn them a few dollars while also helping the environment..."¹⁴

Private Sector: MELAD has providing businesses with reusable bags and working with local tailors/ NGOs to mass produce these bags.

¹⁰ Mid Term Evaluation of the Kiribati Solid Waste Management Programm, Ambar Carvan and Stewart Williams, April 2019

¹¹ <https://www.worldbank.org/en/news/feature/2019/06/02/meet-the-innovators-battling-plastic-waste-in-kiribati-raitiata-cati>

¹² <https://www.mfat.govt.nz>

¹³ The initiative is part of a joint CROP programme on capacity building for small island states, between Pacific Islands Forum Secretariat and SPTO.

¹⁴ <https://www.facebook.com/fijionenews/photos/a.15343328805555/3837572816308232/?type=3>

Research and Development into Single Use Plastic alternatives and other initiatives: No R&D facilities on SUP alternatives. Disposable (Non-biodegradable) nappies are also listed as one of the prohibited items for import, however, the challenge present is finding the specific biodegradable nappy in the global market.

“4R's Bazaar” programme encourages everyone to repurpose the waste materials (such as plastic bottles, plastic wrappers etc.) longer used by the public and display them for marketing purposes to help lessen the amount of trash from entering the landfill, sea, dumped, burnt and even buried and at the same time earn income for those who are unemployed. Another new initiative is the *Plastic Send Exchange programme* which supports the minimisation of plastic litter in the environment both on land and at sea, as well as promoting agricultural practices, in particular home gardening for healthy diets.¹⁵

Media and Communications

Internet users: total: 14,649¹⁶

Development Partner Initiatives:

NZ is funding a solid waste management project in Kiribati¹⁷. The project is currently in phase II and will run from 2017 to the end of 2020. Phase II builds on the initial infrastructure investment in phase I and focuses on increasing financial sustainability and strengthening the enabling environment. No decision has been made regarding an additional future phase. WB funded a waste audit in Kiribati and has identified through national workshop in August 2022, the investment priorities in relation to single use plastic waste management. Kiribati is a member of the CCOA and is eligible for funding through the initiative.

Summary Overview

- Development of a Single Use Plastic Action Plan is the top priority and dovetails elegantly with the INC negotiation whereby each country will be required under the global agreement on plastic pollution to develop National Action Plans.
- Scope to extend SUP plastic bans beyond imports of ice-block bags, non-biodegradable nappies and single-use plastic shopping bags to polystyrene plates, straws, styro-foam food Containers and cup, plates cutlery and certain PET bottles.
- Scope to address leakage at the border through training of customs officials.

¹⁵ <https://www.sprep.org/news/kiribati-continues-to-show-the-way-in-waste-management-with-kaoki-maange-system>

¹⁶ https://theodora.com/wfbcurent/kiribati/kiribati_communications.html

¹⁷ <https://www.mfat.govt.nz/assets/Aid-Prog-docs/Evaluations/2019/MidTerm-Evaluation-of-the-Kiribati-Waste-Mngmnt/Mid-Term-Evaluation-of-the-Kiribati-Waste-Mngmnt.pdf>