

Benefits of 3Rs for Marine Ecosystem Services and Tourism Industry

Case of Pacific Island Countries

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In my presentation today ...

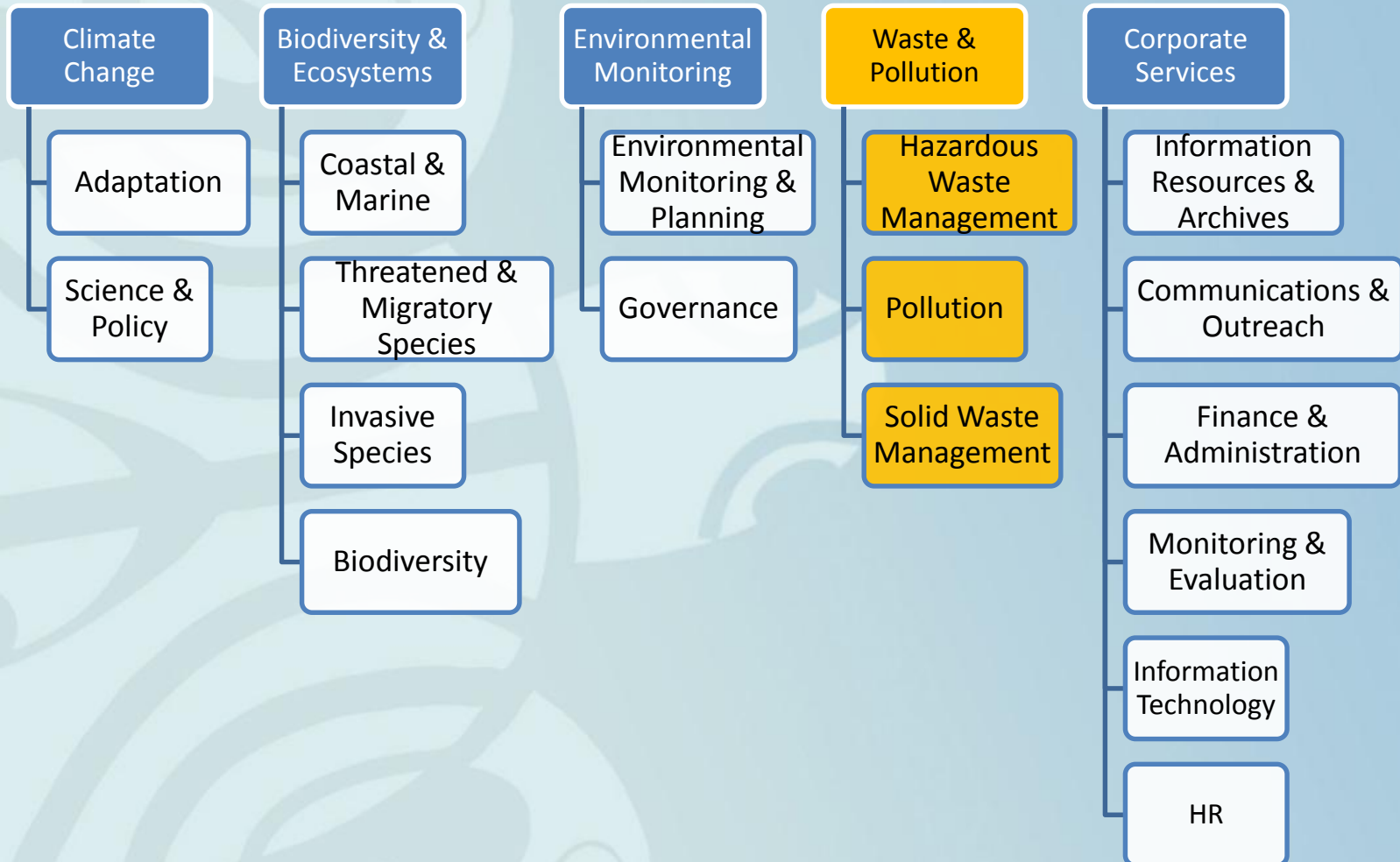
- About SPREP
- The Pacific Islands
- Waste Situation in the Pacific Islands
- Recycling Initiatives
- Benefits to Marine Ecosystem Services
- Benefits to Tourism Industry

About SPREP

- Established in 1993 in Samoa
- Region's primary intergovernmental environmental organisation
- Promotes cooperation and provides assistance in environmental protection and improvement in the Pacific islands region
- 26 Member governments
 - 21 Pacific island countries and territories
 - 5 metropolitan countries (Australia, France, NZ, UK, USA)

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Organizational Structure



MICRONESIA

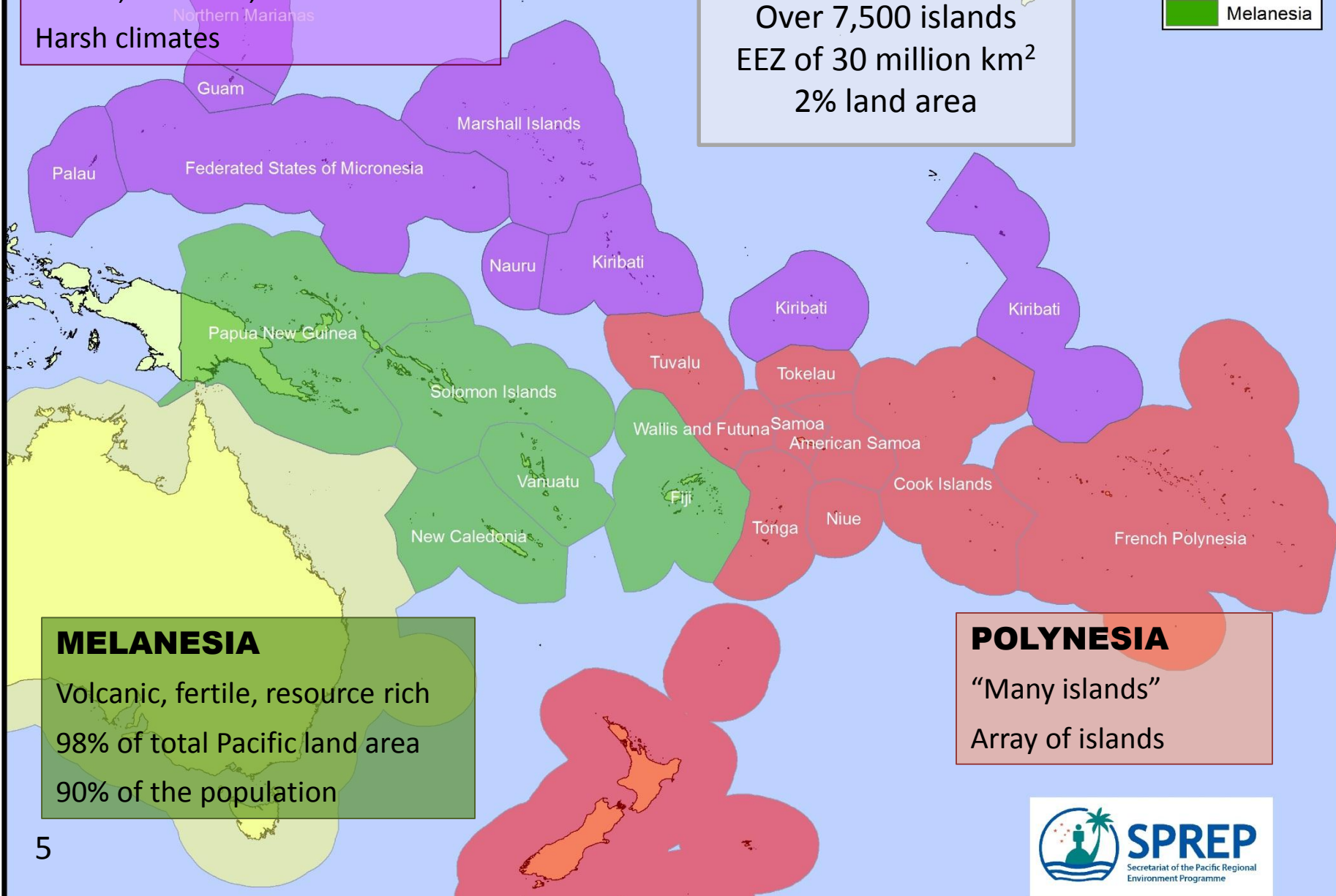
“Small Islands”

Over 2,000 atolls, islands & reefs

Harsh climates

21 Island nations
Over 10 million people
Over 7,500 islands
EEZ of 30 million km²
2% land area

- Polynesia
- Australia
- Micronesia
- Melanesia



MELANESIA

Volcanic, fertile, resource rich
98% of total Pacific land area
90% of the population

POLYNESIA

“Many islands”
Array of islands

The Pacific Islands

- Small size of land mass – only 500 of 7500 islands are inhabited
- Large volcanic landforms, low-lying atolls, raised coral islands
- Geographical isolation – remoteness
- Constraints to economic activities
- Dependence on imported goods – with non-biodegradable packaging

The Pacific Islands



Fishing, agriculture and tourism remain the drivers for economic growth in the Pacific.

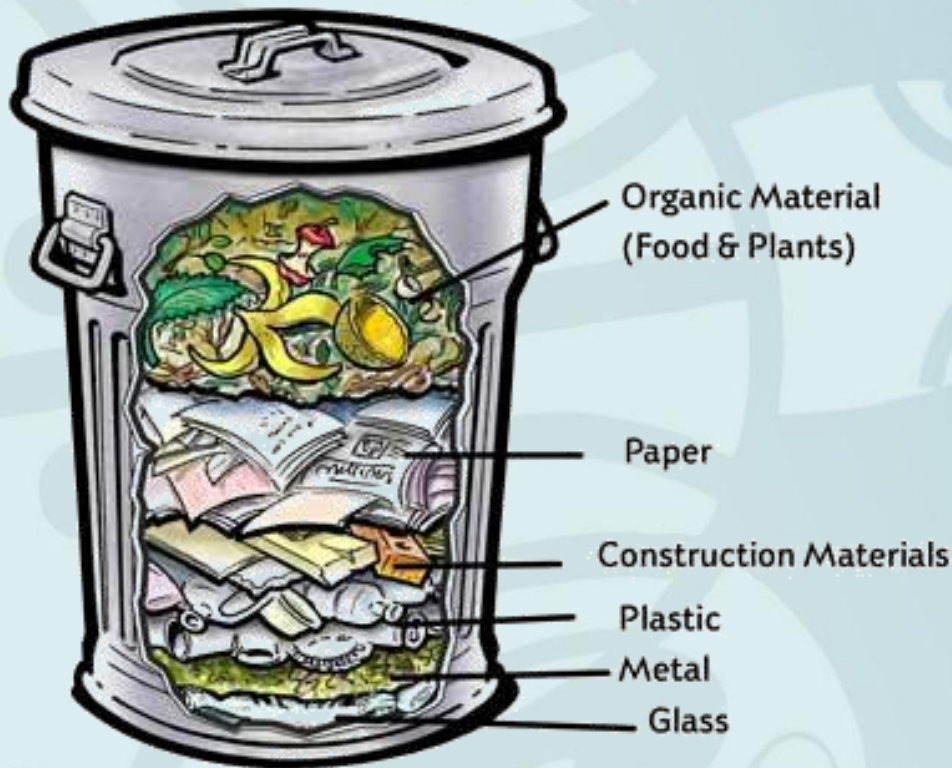
The Pacific Islands

- Volatile economic growth
 - climate change impacts
 - economies of scale
- Dependence on the vast marine environment and the limited land mass – impose the need to promote conservation efforts



What's in the Pacific 'rubbish' bin?

Typical household waste in the Pacific



44% Organic

43% Potentially Recyclable
(Plastics, Metal, Glass, Paper)

13% Other waste (textiles,
potentially hazardous)

Wastes and pollution are grave threats to sustainable development in the Pacific Region



- Small islands and atolls are inappropriate for landfills.

- Marine debris can potentially kill aquatic resources.



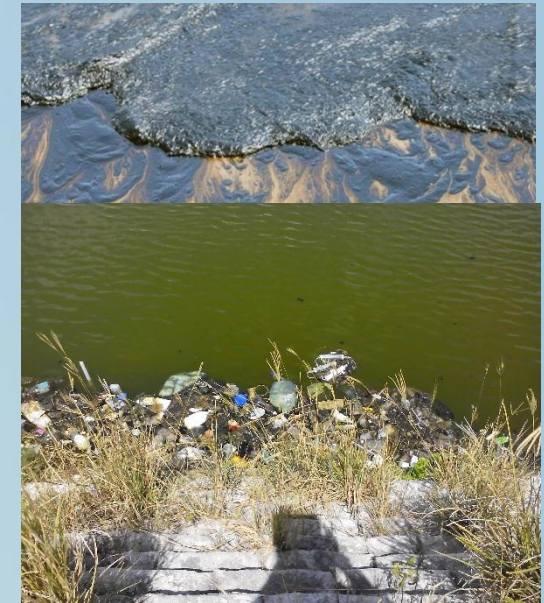
Wastes and pollution are grave threats to sustainable development in the Pacific Region



- Leachate from organic wastes can reduce water quality

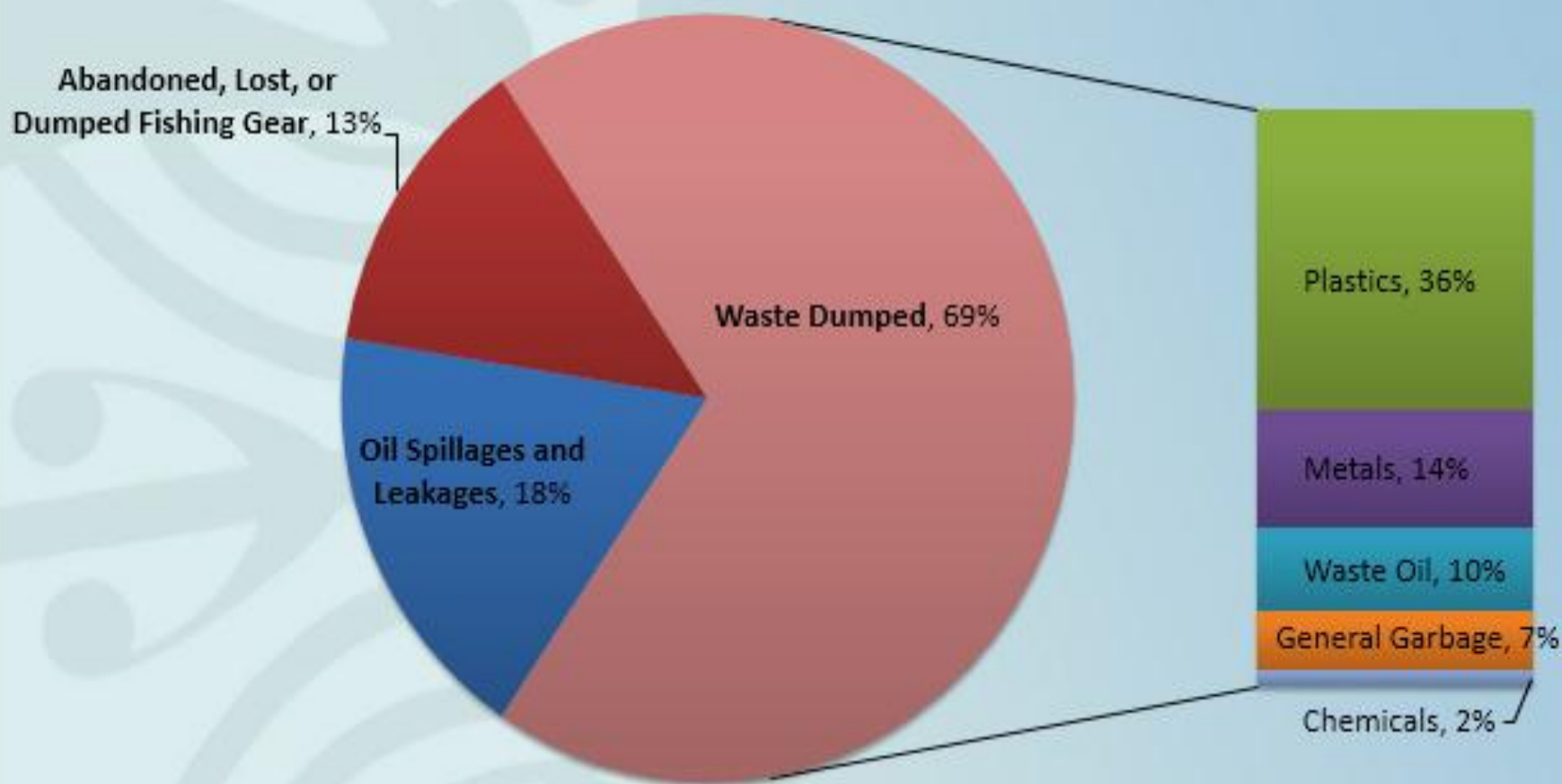


Harsh environment reduces the life expectancy of most goods.



- Hazardous wastes and pollutants can easily find its way to the water table and marine environment.

Percent of Purse Seine Pollution Incidents by Pollution Types, 2004-2014



The challenge remains



Pacific Island countries should maintain their image as the “PARADISE ON EARTH” or the surviving and authentic PARADISES!

Battling Waste and Pollution Issues



Keep American Samoa Beautiful



Cook Island's E-Day



FSM's CDL system



New Caledonia's Waste Regulation Framework



Fiji's Recycling Program



Guam's recycling program



Battling Waste and Pollution Issues



Wallis & Futuna's
waste segregation

Palau's Beverage
Container Recycling,
Energy Recovery,
Recycled Glass Craft
Projects

Samoa's waste booms
and waste audit of
hotels

Solomon Island's
Waste
Characterization
Studies & Litter
Boom Project



Tuvalu's
Composting
Program

Battling Waste and Pollution Issues

- French Polynesia's door-to-door collection
- Niue's waste oil collection, Al can recycling, battery collection
- PNG's, Samoa's and American Samoa's biodegradable plastic shopping bag policy
- Yap's recent plastic bag ban
- RMI's ULABs storage and integrated atoll waste management
- Tokelau's MOU with Samoa on recyclable reception, can crushing
- Tonga's community waste collection service
- Vanuatu's recruitment of a Waste and Pollution Control Officer

Recycling Rate in Selected PICs

PICT	Potentially recyclable waste (tonnes)	Amount exported or recycled/reused locally		Quantity landfilled or dumped (tonnes)	Data Source	Comments
		(tonnes)	(%)			
Fiji	66,788	38,081	57%	28,707	1	End-of-life vehicles, white goods, cans, PET bottles, paper and cardboard
Samoa	13,308	4,741	36%	8,567	1	As above
Tonga	6,567	598	9%	5,969	1	As above
Tuvalu	685	103	15%	582	1	As above
Vanuatu	12,591	4,642	37%	7,949	1	As above
French Polynesia	16,300	6,300	39%	10,000	2	Cans, PET bottles, paper and cardboard, glass
Total	116,239	54,465	47%	61,774	-	-

Source: 1. JICA. 2013. Data Collection Survey on Reverse Logistics in the Pacific Islands: Final Report.
2. Completed country profile questionnaire submitted by Department of Environment (DIREN).

Challenges in the Pacific recycling sector


- Poor segregation system and collection network for recyclable waste goods, especially in outer islands;
- Poor working conditions at some recycling companies, with little regulation by relevant authorities;
- Little to no domestic demand for recyclable waste goods;
- Poor international demand for PET bottles, paper, and cardboard;
- High marine transportation costs accounting for as much as 30% of the cost of preparing and shipping recyclable commodities from PICs to the far east; and
- Low awareness among recycling companies of the quarantine regulations at the destination ports.

Marine Ecosystem in the Pacific

Marine pollution mainly from shipping – 93,000 shipping traffic in 2013



Marine litter – marine plastic and microplastic pollution; 80% coming from land



With 98% of the Pacific Islands covered by ocean ...

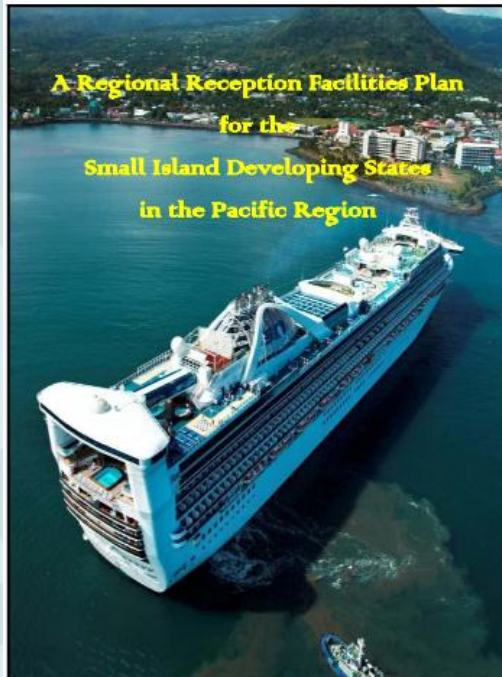
... there is heavy reliance of island countries upon healthy ocean ecosystems.
... which makes it also appropriate to call these countries **Large ocean States**.

Benefits of 3Rs to Marine Ecosystem Services

- Provisioning services – improved coastal environment will result in progressive fisheries and other associated industries
- Regulating services – healthy wetlands can filter sediments and organic wastes
- Cultural services – appropriate recreational activities can boost coastal tourism



Regional Initiatives



Pacific Regional Port Waste Reception Facility Plan



Marine Litter boom projects – Samoa & Solomon Islands

- Marine debris risk assessment
- Development of marine litter focal area in the Two Samoa's initiative
- Collaboration with Ocean Conservancy for the International Coastal Clean-up Day
- Research into ship-sourced marine pollution

Tourism Industry in the Pacific

- Contribution to poverty alleviation
- Major industry – Fiji, Vanuatu, French Polynesia, Cook Islands, Samoa
- Land tenure – challenge
- Threat of environmental vulnerability
- Potential for sustainable growth considering limited growth options due to isolation, limited resources – potential to graduate out of LDC status
- Tourism plans – sustainable, respect, and culture are key terms; tourism development should not progress at the expense of environmental sustainability or local culture and values

Benefits of 3Rs in the Tourism Industry

- Economic gains - ???
- Address some of the consequences of exceeding the environmental capacity with the influx of tourists
- Aesthetic – good image
- Enhanced benefit through private sector involvement – with corporate responsibilities
- Difficulty of recovering from natural disasters without a climate-proof waste management system



Benefits of 3Rs in the Tourism Industry

- Local sourcing of goods and services - local crafts, local cuisine, local produce which links to poverty alleviation
- Providing environmental conditions which are well suited to the production of niche market items, e.g. Farm to Table program in Samoa
- Creating resource management awareness potentially providing positive interaction between hosts and guests – especially for domestic tourism (agro-tourism, cultural tourism and rural tourism)
- Potential health risks of mismanaged wastes and pollution issues can be a downturn in tourism.



“The greatest threat to our planet is the belief that someone else will save it.”

- Richard Swan-

Thank you for your attention!

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