



# DEVELOPMENT OF ISLAND'S SUSTAINABLE SOCIETIES

## FIJI'S 3R POLICY

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# Country Profile



❖ Located South West Pacific Ocean

❖ Population (2007) – 837,271

❖ Land size – 18,270 km<sup>2</sup>

❖ 332 islands

❖ Tropical maritime climate

- Av. High Temp : 30°C – 32°C

- Av. Low Temp : 18°C - 20°C

❖ Religion – Christians 52%; Hindu 38%, Muslims 8%, others 2%



# Relevance of 3R Project in Fiji

- Fiji with a population of over 837,000 largely depends on the importation of goods and materials from the developed countries.
- Due to Fiji's geographical isolation and relatively small recycling market, it becomes very difficult to recycle waste in Fiji.
- Urbanization, population growth, increasing prosperity, commercial and industrial development, tourism, and most other forms of development have all contributed to increasing generation of wastes
- Customary rights over the use of land and reluctance by landowners to lease land for use as disposal resulted in difficulties in finding landfill sites.
- SWM issues has potential to cause negative impacts on the fragile environment, tourism, trade, food supplies, public health and severely place constraint on the existing limited resources.

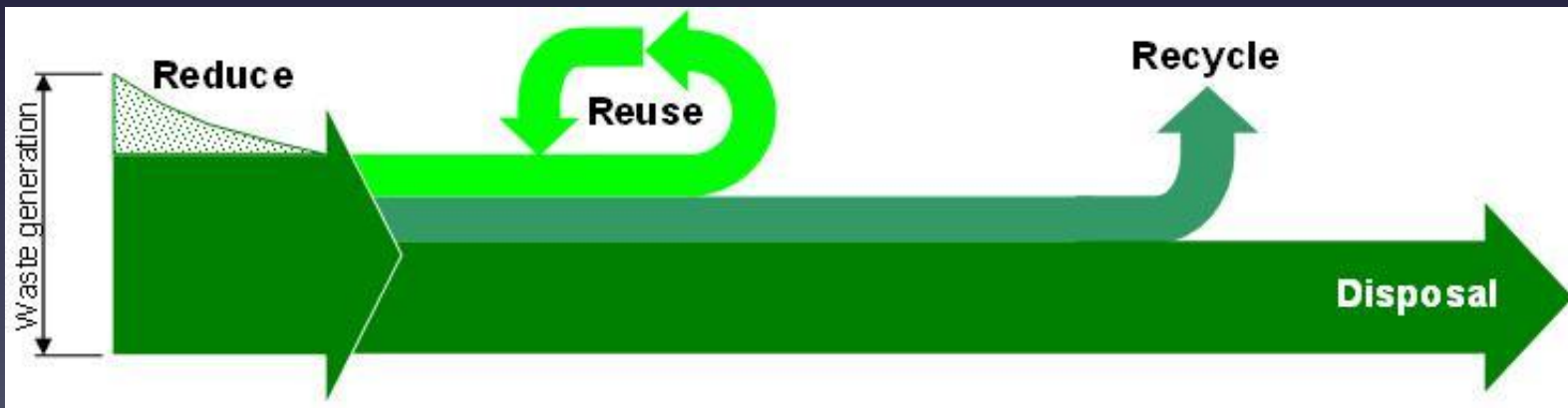
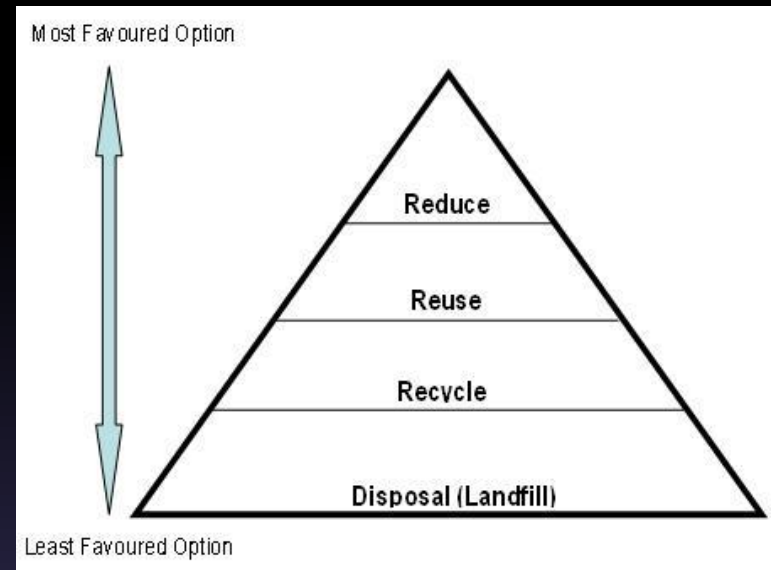


# What is 3Rs

- 3Rs are meant to be a hierarchy, in order of importance.

“Waste minimization through reduce, separation at source, reuse and recycling prevents the creation of waste and reduce the quantity and the impacts of the waste generated”.

Source : NSWMS 2010 -2014



# Characteristics of waste in Western Fiji

- Green waste makes up the largest - 37.15%.
- Kitchen waste - 33.25%.
- Wastes considered organic matter – 70.4%.
- Ratio of recyclables - PET, metals, Bottles and glass, which are economical valuable - 4% to 5%.



# 3R Promotion Activities



① Home composting



② Separate collection of recyclables



③ Market waste composting



④ Green waste chipping



⑤ Clean school program

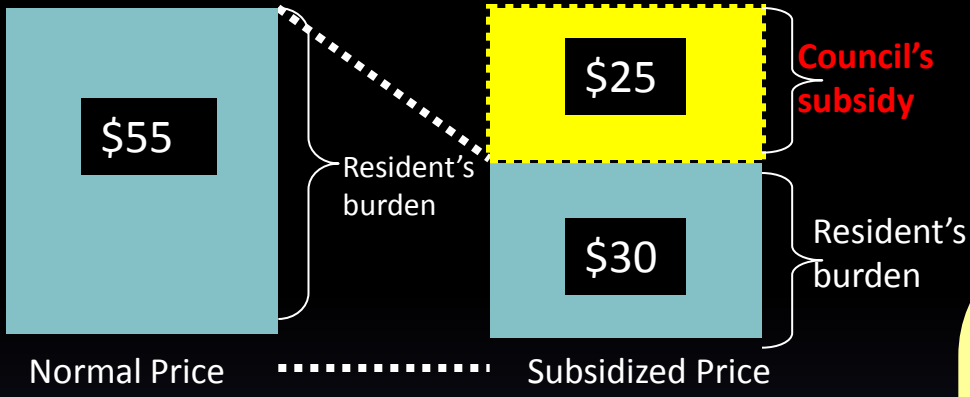


⑥ Public awareness



# 1 Home composting

A Subsidy Programme to promote home composting



④ Guidance given when installed

③ Residents visit councils for application



⑤ Citizens use composter

⑥ Monitoring



⑦ Benefit of composting



①

# Home composting

Compost is ready after 3 - 5 months



Slowly tilt and remove the composter



Remove the compost and spread on ground to let dry for a week



Drum compost is also practical method!



# ② Separate Collection of Recyclables



Collection



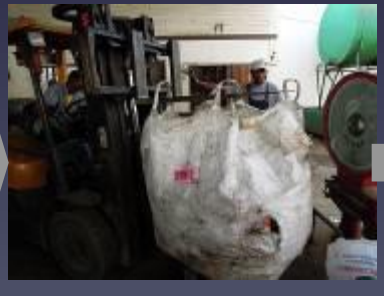
④ Monitoring of discharge manner (during collection)



⑤ Handover to recycling company



⑥ Sorting



⑦ Weighing (→report to councils)



⑧ Bailing

Shipping to overseas (AUS, NZ, etc)



(House-to-house visit)



(Community meeting area by area)

① Awareness raising on waste separation



② Discharge

# ③ Market Waste Composting



① Awareness raising on market waste separation



② Place separate bins  
(Green bin for vegetable waste only,  
Half blue bin for other waste)



③ Separate discharge



④ Collection



(Turn over regularly)



(Cut finely)



(Remove undegradable item)

⑥ Pre-treatment



⑤ Haul to compost yard



⑦ Promote fermentation (for 3-5 months)



⑧ Sieving



⑨ Bagging



Sale  
\$3/10kg

Final product

# ⑤ Clean Schools Program

**Aim :** To target children as excellent agents of change to create awareness on the concept of waste minimization in schools.



1) Organize Teacher's Workshop



2) Establish 3R Committee in each school

3) Develop 3R Action Plan in schools and submit it to Council



① Environmental Awareness raising



② Composting



③ Rubbish Separation & Recycling



# Draft 3R Policy Targets

|                               | 2010                              | 2015                 | 2020                 |
|-------------------------------|-----------------------------------|----------------------|----------------------|
| MSW Generation                | 130,359<br>tonnes/yr              | 140,671<br>tonnes/yr | 149,979<br>tonnes/yr |
| Collection Rate* <sup>1</sup> | 100%                              | 100%                 | 100%                 |
| Disposal Amount* <sup>2</sup> | 98,824<br>tonnes/yr* <sup>1</sup> | 100,600<br>tonnes/yr | 103,500<br>tonnes/yr |
| Recovery Rate* <sup>3</sup>   | 3.0 – 8.0 %                       | 10%                  | 15%                  |
| Disposal Rate* <sup>3</sup>   | 76%                               | 72%                  | 69%                  |

\*1: The Collection Rate is the ratio of waste amount collected to the waste amount discharged.

\*2: The Disposal Amount for 2010 is obtained from Table 13 of the National Solid Waste Management Strategy 2011 – 2014.

\*3: The Recovery Rate and Disposal Rate are the ratios of the waste recycled and disposed at the landfill site to the waste generation amount respectively.

# Challenges

- Absence of national Policies, framework and legislation specifically on 3Rs.
- Due to lack of any specific legislation targeting 3Rs, the success of composting practice is now on voluntary basis. Citizens are not compelled to support the home compost subsidy programmes initiated by some municipalities.
- Limited Recycling Industry targeting the recycling of plastics, pet bottles, cardboards, glasses etc.
- Low value of recyclable materials especially no value for cartons, glasses, plastics and hard plastics.



# Challenges

- Financial arrangements to facilitate in the continuous implementation of 3Rs programme after completion of Project.
- Lack capacity and tools for effective enforcement for boarder control.
- Limited provisions on the existing Environment Management Act to allow effective enforcement.
- Limited data on total waste recycled; waste not collected, either dumped or burnt;
- unit cost of waste management, collection and disposal/tonne; waste management budget subsidized by government



# Opportunities/Way Forward

- Endorsement and Implementation of the 3R Policy for Fiji.
- Enactment of a 3R Recycling Decree.
- Reconsider the proposal on the establishment of a Waste Management Authority.
- Establishment of a container deposit refund scheme (CDL)



